

August 24, 2021

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**Re: North American Electric Reliability Corporation
Docket No. RR21-____-000
Request for Acceptance of 2022 Business Plans and Budgets of NERC and
Regional Entities and for Approval of Proposed Assessments to Fund Budgets**

Dear Ms. Bose:

The North American Electric Reliability Corporation (NERC) hereby submits this filing in accordance with 18 C.F.R. §39.4, requesting acceptance of the 2022 Business Plans and Budgets of NERC, the six Regional Entities, and the Western Interconnection Regional Advisory Body, and approval of the proposed assessments to fund the 2022 budgets.

NERC's filing consists of: (1) this transmittal letter, (2) the narrative text of this filing which follows this transmittal letter, and (3) Attachments 1 through 15, all of which are being transmitted in a single pdf file. Page ii in the Table of Contents to the narrative text list the 15 attachments.

Please contact the undersigned if you have any questions concerning this filing.

Respectfully submitted,

/s/ Owen E. MacBride
Owen E. MacBride

Attorney for North American Electric
Reliability Corporation

UNITED STATES OF AMERICA
Before the
FEDERAL ENERGY REGULATORY COMMISSION

NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION) **Docket No. RR21-__-000**
)

REQUEST OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
FOR ACCEPTANCE OF ITS 2022 BUSINESS PLAN AND BUDGET AND
THE 2022 BUSINESS PLANS AND BUDGETS OF REGIONAL ENTITIES
AND FOR APPROVAL OF PROPOSED ASSESSMENTS TO FUND BUDGETS

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ATTACHMENTS

Attachment 1: Summary tables showing NERC’s proposed 2022 budget; the proposed 2022 budget for statutory activities of each Regional Entity; and the 2022 U.S. ERO statutory assessments of NERC and the Regional Entities

Attachment 2: NERC Proposed 2022 Business Plan and Budget

Attachment 3: Midwest Reliability Organization Proposed 2022 Business Plan and Budget

Attachment 4: Northeast Power Coordinating Council, Inc. Proposed 2022 Business Plan and Budget

Attachment 5: ReliabilityFirst Corporation Proposed 2022 Business Plan and Budget

Attachment 6: SERC Reliability Corporation Proposed 2022 Business Plan and Budget

Attachment 7: Texas Reliability Entity Proposed 2022 Business Plan and Budget

Attachment 8: Western Electricity Coordinating Council Proposed 2022 Business Plan and Budget

Attachment 9: Western Interconnection Regional Advisory Body Proposed 2022 Business Plan and Budget

Attachment 10: NERC Management’s Responses to Stakeholder Comments Submitted on Draft #1 of NERC’s 2022 Business Plan and Budget

Attachment 11: Calculation of Adjustments to the 2022 AESO NERC Assessment, IESO NERC Assessment, New Brunswick NERC Assessment and Québec NERC Assessment

Attachment 12: Memorandum for NERC Board of Trustees Describing NERC’s Participation in Preparation of and Review of Regional Entity 2022 Business Plans and Budgets

Attachment 13: Donation Holdback Agreement between Peak Reliability and the Western Electricity Coordinating Council

Attachment 14: Metrics Comparing Regional Entity Operations Based on the 2022 Budgets

Attachment 15: Metrics on NERC and Regional Entity Administrative (Indirect) Costs Based on the 2021 and 2022 Budgets

I. INTRODUCTION

In accordance with 18 C.F.R. §39.4, the North American Electric Reliability Corporation (NERC) submits for the Commission's acceptance and approval: (1) NERC's proposed Business Plan and Budget as the electric reliability organization (ERO), for the year ending December 31, 2022; (2) the proposed Business Plans and Budgets for the year ending December 31, 2022, for the six Regional Entities,¹ and for the Western Interconnection Regional Advisory Body (WIRAB) for its activities under §215(j) of the Federal Power Act (FPA) for the year ending December 31, 2022; and (3) NERC's proposed allocation of the proposed ERO statutory assessments of NERC, the Regional Entities, and WIRAB by country and among the Regional footprints, and the proposed assessments to load-serving entities (LSEs) within each Region to collect the statutory funding requirements. This filing includes the following attachments:

Attachment 1 is a set of summary tables showing (i) NERC's proposed 2022 budget by program, (ii) the proposed 2022 budget for statutory activities of each Regional Entity, and (iii) the aggregate ERO statutory assessment of NERC and the Regional Entities allocated to the U.S., for which approval is requested.

Attachment 2 contains NERC's detailed 2022 Business Plan and Budget and the allocation of assessments by Region and LSE to recover the resulting statutory funding requirements for 2022 (as well as the assessments to recover the statutory funding requirements of the Regional Entities and WIRAB).

Attachments 3 through 9 are the detailed 2022 Business Plans and Budgets of, respectively, MRO, NPCC, ReliabilityFirst, SERC, Texas RE, WECC, and WIRAB.

Attachment 10 contains copies of NERC management's responses to stakeholder comments submitted on the posted Draft #1 of NERC's 2022 Business Plan and Budget during the budget development process.

Attachment 11 contains calculation of the adjustments to the NERC 2022 assessments to the Alberta Electric System Operator (AESO), Ontario Independent Electric System Operator (IESO), New Brunswick, and Québec, for credits for certain NERC Compliance Monitoring and Enforcement Program and Situation Awareness costs.

¹Midwest Reliability Organization (MRO), Northeast Power Coordinating Council, Inc. (NPCC), ReliabilityFirst Corporation (ReliabilityFirst), SERC Reliability Corporation (SERC), Texas Reliability Entity (Texas RE), and Western Electricity Coordinating Council (WECC).

Attachment 12 is a memorandum prepared for the NERC Board of Trustees describing NERC's participation in the preparation of and review of the Regional Entities' 2022 Business Plans and Budgets.

Attachment 13 is a Donation Holdback Agreement between Peak Reliability and WECC relating to a donation to WECC by Peak Reliability of Peak's remaining funds upon its dissolution in December 2020.

Attachment 14 provides metrics, based on the 2022 budgets, for Regional Entity operations.

Attachment 15 contains metrics, based on the 2021 and 2022 budgets, on NERC and Regional Entity administrative (indirect) costs.

The Commission's regulations (18 C.F.R. §39.4(b)) require the ERO to file its proposed entire annual budget for statutory and non-statutory activities at least 130 days prior to the start of its fiscal year. NERC's 2022 fiscal year begins January 1, 2022. The filing must contain the entire annual budget of each Regional Entity for statutory and non-statutory activities and the ERO's and each Regional Entity's complete business plan and organization chart, explanations of the proposed collection of all dues, fees and charges, and the proposed expenditure of funds collected. This information is included in this filing. In accordance with 18 C.F.R. §39.4(c), NERC requests issuance of an order by November 2, 2021, accepting the proposed Business Plans and Budgets and approving the assessments submitted in this filing, which will enable billings to be issued to LSEs or their designees for assessments, with initial payment dates on or about January 1, 2022, to support the activities of NERC, the Regional Entities, and WIRAB.

II. NOTICES AND COMMUNICATIONS

Notices and communications concerning this filing may be addressed to:

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III. OVERVIEW OF PROPOSED BUDGETS AND FUNDING REQUIREMENTS

A. Development of the 2022 Business Plans and Budgets

NERC prepared its 2022 Business Plan and Budget, and worked with the Regional Entities in the development of their business plans and budgets, through a rigorous process that provided ample opportunity for review and input by the Finance and Audit Committee (FAC) of the NERC Board and stakeholders. Development of the 2022 business plans and budgets built off of the revised *ERO Enterprise Long-Term Strategy*, approved by the NERC Board in December 2019, which identifies strategic focus areas for the ERO Enterprise.² As part of the business planning and budgeting process, NERC and the Regional Entities identify goals and activities to ensure alignment with the long-term strategy, and may develop annual work plan priorities that summarize the critical goals and objectives for the year. These goals, activities and work plans are described in the NERC and Regional Entity business plans and budgets.

During the business plan and budget development process, successive versions of the 2022 NERC and Regional Entity business plans and budgets were discussed in public meetings and conference calls of the FAC and of the full NERC Board, with opportunities for stakeholders

² NERC uses the term “ERO Enterprise” to refer to NERC and the Regional Entities.

to provide comments. NERC management also held meetings and conference calls with the NERC Member Representatives Committee (MRC) Business Plan and Budget Input Group.³

The following chronology highlights important steps in preparation of the NERC and Regional Entity 2022 Business Plans and Budgets.

- On October 8, 2020, a conference call with the MRC Business Plan and Budget Input Group initiated discussions relating to development of the 2022 business plan and budget.
- On November 4-5, 2020, a meeting of the NERC FAC included a review of the proposed schedule for development of the 2022 business plans and budgets.
- On November 9-10, 2020, the ERO Finance Group, comprised of Finance representatives from NERC and each Regional Entity, met by conference call to review strategic goals and objectives for 2022 and discuss how they would be translated into the 2022 business plans and budgets.
- On January 19, 2021, February 24, 2021, March 25, 2021, and April 14, 2021, the ERO Finance Group met by conference call to discuss progress and status in the development of the 2022 business plans and budgets.
- On January 28, 2021, March 11, 2021 and April 15, 2021, conference calls were held with the MRC Business Plan and Budget Input Group.
- On April 21, 2021, NERC's quarterly meeting with trade associations and forum groups, to which the MRC Business Plan and Budget Input Group was also invited, included a high-level overview of the NERC 2022 Business Plan and Budget.
- On April 22, 2021, the NERC FAC met in closed session to review assumptions for the 2022 NERC Business Plan and Budget.
- In late April and early May 2021, the Regional Entities provided drafts of their 2022 business plans and budgets to NERC. NERC reviewed these drafts and provided feedback to the Regional Entities as needed prior to the submission of each Regional Entity's final business plan and budget to its Board or other governing body.
- Beginning in April, 2021, and continuing into May, 2021, the Regional Entities posted drafts of their 2022 Business Plans and Budgets on their respective websites for various time periods for review and comment by their stakeholders, in accordance with each Regional Entity's review process. (*See §V.A below for further information on the stakeholder review opportunities provided by each Regional Entity for its 2022 Business Plan and Budget.*)
- On April 29, 2021, a meeting of the Member Executive Committee (MEC) of the Electricity Subsector Coordinating Council (ESCC) included a high-level overview of Draft # 1 of the E-ISAC 2022 budget.

³ The MRC Business Plan and Budget Input Group is a subgroup of MRC members who are tasked with providing input specifically on the business plans and budgets.

- On May 12-13, 2021, during meetings of the MRC, NERC Board committees, and the NERC Board, the NERC FAC meeting included a preview of Draft #1 of NERC's 2022 Business Plan and Budget and the preliminary ERO Enterprise combined 2022 budgets and assessments.
- On May 24, 2021, drafts of the NERC, Regional Entity, and WIRAB 2022 Business Plans and Budgets, and information on the ERO Enterprise combined 2022 budgets and assessments, were posted on the NERC website. Notice of the posting (and of all subsequent postings) was sent by e-mail to a broad distribution list of interested persons and entities. Comments were requested on Draft #1 of NERC's 2022 Business Plan and Budget by June 18, 2021. Six sets of written stakeholder comments were received and were posted on the NERC website.⁴
- On May 25, 2021, and June 17, 2021, the ERO Finance Group held additional meetings by conference call.
- On May 26, 2021, representatives of NERC, each Regional Entity, and WIRAB met with Commission Staff to discuss the 2022 business plans and budgets and the ERO Enterprise combined 2022 budgets and assessments.
- On June 3, 2021, the NERC FAC held a conference call and webinar to review Draft #1 of NERC's 2022 Business Plan and Budget, the current drafts of the Regional Entity and WIRAB 2022 business plans and budgets, and the ERO Enterprise combined 2022 budgets and assessments.
- At various dates from mid-May to late June 2021, the Boards or other governing bodies of the Regional Entities and of WIRAB approved their respective proposed 2022 business plans and budgets.
- On June 30, 2021, another conference call was held with the MRC Business Plan and Budget Input Group.
- On July 6, 2021, NERC's quarterly meeting with trade associations and forums, to which the MRC Business Plan and Budget Input Group was also invited, included discussion of the stakeholder comments received on Draft #1 of NERC's 2022 Business Plan and Budget, and a preview of Draft #2.
- On July 7, 2021, a closed meeting was held with the NERC FAC to review assumptions for Draft #2 of NERC's 2022 Business Plan and Budget.
- On July 15, 2021, NERC posted on its website management's responses to the comments that were submitted on Draft #1 of the 2022 Business Plan and Budget. **Attachment 10** to this filing provides the text of the responses.

⁴ Comments were submitted by (i) the American Public Power Association, Edison Electric Institute, and Large Public Power Council, (ii) the Canadian Electricity Association, (iii) the IESO, (iv) the ISO-RTO Council Standards Review Committee, (v) the Midcontinent Independent System Operator, Inc., and (vi) the National Rural Electric Cooperative Association (Cooperative Sector). The comments are posted at: <https://www.nerc.com/gov/bot/FINANCE/Pages/2022NERCBusinessPlanandBudget.aspx>. NERC management's responses to these comments are included in **Attachment 10**.

- Also on July 15, 2021, Draft #2 of NERC’s 2022 Business Plan and Budget was posted on the NERC website. Any additional stakeholder comments on Draft #2 were requested by July 28, 2021. No additional stakeholder comments were submitted.
- Also on July 15, 2021, the final versions of the Regional Entity and WIRAB 2022 Business Plans and Budgets were posted on the NERC website, along with the ERO Enterprise combined 2022 budgets and assessments.
- On July 16, 2021, the ERO Finance Group held a meeting by conference call.
- On July 22, 2021, the FAC held a conference call and webinar to review Draft #2 of NERC’s 2022 Business Plan and Budget, the final Regional Entity and WIRAB 2022 business plans and budgets, and the ERO Enterprise combined 2022 business plans and budgets.
- On July 29, 2021, a conference call meeting of the ESCC MEC included a review of the final projected E-ISAC budget as shown in Draft #2 of NERC’s 2022 Business Plan and Budget, which was endorsed by the MEC.
- On August 5, 2021, the final NERC, Regional Entity, and WIRAB 2022 Business Plans and Budgets and assessments, as proposed for NERC Board consideration, were posted on the NERC website for the upcoming MRC, FAC and NERC Board meetings.
- At the August 11, 2021 open meeting of the FAC, NERC management presented the final version of the NERC 2022 Business Plan and Budget. The FAC recommended NERC Board approval of the 2022 business plans and budgets and associated statutory assessments for NERC, the Regional Entities and WIRAB.
- At its August 12, 2021 meeting, the NERC Board approved the 2022 business plans and budgets and statutory assessments for NERC, the Regional Entities and WIRAB.

The processes followed by NERC and the Regional Entities to develop the proposed 2022 business plans and budgets were thorough, comprehensive, open and inclusive, involved significant input from NERC and Regional Entity management and staffs, as well as iterative review and comment by the FAC, and provided multiple opportunities for stakeholder input and comment, including by the MRC Business Plan and Budget Input Group, the full MRC, and trade associations and industry forums.

B. NERC’s 2022 Business Plan and Budget

1. Organization of NERC’s Business Plan and Budget

NERC’s Business Plan and Budget is organized based on its statutory program areas:

- Reliability Standards and Power Risk Issue Strategic Management (PRISM)

- Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement
- Reliability Assessments and Performance Analysis (RAPA)
- Situation Awareness
- Event Analysis
- E-ISAC, including the Cyber Risk Information Sharing Program (CRISP)
- Personnel Certification and Continuing Education
- Training and Education

Each program area carries out or supports implementation of one or more of the ERO's statutory activities as specified in §215 of the FPA and the Commission's regulations and orders. NERC's statutory, or "direct," programs are supported by its Administrative Services, or "indirect," programs: General & Administrative (G&A), Legal and Regulatory, Information Technology (IT), Human Resources (HR) & Administration, and Finance and Accounting. The functions and activities of each statutory program and Administrative Services program are described in the sections on each program in Section A and in Exhibit A of **Attachment 2**.

The initial sections of the 2022 Business Plan and Budget, Preface and About NERC, provide an overview of NERC's organization, governance, scope, responsibilities, and funding, including the ERO Enterprise model and strategic and operational planning. The Introduction and Executive Summary provides an overview of NERC's 2022 budget, funding, and staffing requirements, with comparisons to the 2021 budget, by the principal categories of funding and expenses and by statutory program area. It describes NERC's key business planning assumptions used to develop the 2022 budget. The Introduction and Executive Summary also describes NERC's 2022 fixed assets budget and capital financing plans and the budgeted amounts for each category of NERC's reserves. The table on page 7 shows the change in the 2022 budget from the 2021 budget for each statutory program area. The table on page 8 shows budgeted 2022 staffing and the change from the 2021 budget for each statutory program and Administrative

programs. The table on page 10 is NERC's overall Statement of Activities and Fixed Asset Additions (Statement of Activities), showing information from the 2021 budget, the projection of 2021 year-end results, and the 2022 budget, and the variances between the 2021 projection and 2021 budget and the 2022 budget and 2021 budget, for major line item categories for Funding, Expenses, Fixed Asset Additions, and Financing Activity. Finally, the Introduction and Executive Summary presents NERC's budget and assessment projections for 2023 and 2024.

Section A of **Attachment 2** is NERC's detailed 2022 Business Plan and Budget, which addresses the requirements of 18 C.F.R. §39.4(b), the Commission's Order certifying NERC as the ERO,⁵ and applicable directives in subsequent Commission orders. Section A provides, for each statutory program and the Administrative Services functions, program background and scope, descriptions of key efforts under way in 2021, 2022 goals and deliverables, explanations of changes in budgeted Personnel Expenses and Consultants & Contracts expense, and, where applicable, significant changes in other budget categories, for 2022 over the 2021 budget. A Statement of Activities is provided for each statutory program and for the Administrative Services functions, showing funding and expenditure information from the 2021 budget, 2021 projection,⁵ and 2022 budget.

In the Statements of Activities for each program, Funding is shown from NERC Assessments and, if applicable, from other sources.⁶ Expenses are shown by major categories of, and sub-categories within, Personnel Expenses, Meeting & Travel Expense, Operating Expenses, and Other Non-Operating Expenses. The Statements of Activities for the statutory programs

⁵ *Order Certifying North American Electric Reliability Corporation as the Electric Reliability Corporation and Ordering Compliance Filing*, 116 FERC ¶ 61,062 (2006) (*ERO Certification Order*).

⁶ Other sources include fees from Services & Software; Interest & Investment income; Third-Party Funding; System Operator Certification Testing, Certification Renewal, and Continuing Education Fees; and Miscellaneous Funding.

show the Indirect Expenses allocated from the Administrative Services departments. The Statements of Activities show Fixed Asset Additions, Net Financing Activity,⁷ and Total Budget (Total Expenses plus Fixed Asset Additions plus Net Financing Activity) for each program.

Section B of **Attachment 2** provides Supplemental Financial Information comprised of tables detailing the components of the Funding and Expense categories and explanations of significant changes from the 2021 budget, including information on the Reserves balances and increase or decrease to assessments to meet Reserves targets.⁸

Section C, Non-Statutory Activity, of **Attachment 2** is empty for NERC, which has no non-statutory activities. In the business plans and budgets of the Regional Entities that have non-statutory activities, Section C provides information on their non-statutory activities and budgets.

Section D, Consolidated Statement of Activities by Program, shows 2022 budgeted line-item Funding sources, Expenses, Fixed Asset Additions, and Net Financing Activity, in total and for each statutory program and Administrative Services function, as well as the direct and indirect expenses for each statutory program.

NERC's Business Plan and Budget includes the following Exhibits and Appendices:

Exhibit A – Application of NERC Section 215 Criteria, describes how the major activities included in the 2022 Business Plan and Budget for NERC's direct function programs and Administrative Services functions meet the Commission-approved NERC written criteria for eligibility for FPA §215 funding.⁹

Exhibit B – Consultants and Contracts Costs, contains a detailed list of NERC's budgeted

⁷ Net Financing Activity shows the impacts of capital financing activity (debt borrowing, lease-financed asset purchases, and principal payments) on the total budget and funding requirements (*see* discussion on page 6 of **Attachment 2**).

⁸ Table B-6 in the ERO Business Plan and Budget template is reserved for Consultants & Contracts expenses, but NERC's Business Plan and Budget provides a more detailed breakdown of these expenses in Exhibit B. Additionally, Table B-13 in the template is reserved for 2023-2024 Budget Projections, but NERC has provided its 2023-2024 budget projections in the Introduction and Executive Summary.

⁹ The Commission approved the FPA §215 criteria in *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013).

2022 Consultants & Contracts expenses, by program area and by major activity or project, and shows the 2021 budget amounts for Consultants & Contracts expense and the change in the 2022 budget from the 2021 budget for each line item, where applicable.

Exhibit C – Capital Financing, describes proposed borrowing and repayment activity under NERC’s capital financing program for certain capital expenditures. Exhibit C shows (i) projected 2021, budgeted 2022, and projected 2023 and 2024 year-end outstanding debt balances and (ii) annual payments for debt service, broken out by principal repayments and interest expense. (*See* §IV.C below for further discussion.)

Appendix 1 contains NERC’s organization chart, as required by 18 C.F.R. §39.4(b).

Appendix 2 contains the calculation of the net energy for load (NEL)-based allocation factors for each LSE or designee and the allocation of the NERC, Regional Entity and WIRAB statutory assessments, by allocation method, to each LSE or designee for 2022. Development of the assessments presented in Appendix 2 is discussed in §III.D below.

The information in the 2022 Business Plan and Budget demonstrates that the programs in it are necessary and appropriate to carry out NERC’s responsibilities as ERO and that the budgeted resources meet the Commission’s objectives for affordability, sustainability, and efficiency and effectiveness of the ERO’s expenditures. (*ERO Certification Order*, P 202 (budget principle (5).) The 2022 Business Plan and Budget demonstrates how the activities and expenditures it includes lend themselves to accomplishing NERC's statutory responsibilities and objectives as the ERO. (*Id.* (budget principle (2).)

2. Summary of NERC’s 2022 Budget and Funding Requirement

NERC is proposing an overall 2022 budget of \$88,028,284, an increase of 6.2% (\$5,145,045) over the 2021 budget. NERC’s proposed 2022 total Funding requirement is \$88,257,888, encompassing U.S., Canadian and Mexican activities, an increase of 8.8% from the 2021 budget. The budgeted non-assessment sources of Funding for 2022 total \$9,870,608, comprised of the following sources and amounts:¹⁰

- \$7,917,385 of Third-Party Funding for CRISP;

¹⁰ NERC did not collect any Penalties in the 12 months ended June 30, 2021, and does not propose to release any funds from its ASR as a 2022 funding source. *See* §IV.B below.

- \$1,756,723 of Testing, Renewal, & Continuing Education Fees charged to participants in the NERC System Operator Certification Program;
- \$60,000 of revenue from Services & Software;
- \$60,000 of Miscellaneous revenue; and
- \$76,500 in Interest & Investment Income.

Application of the non-assessment funding sources to the statutory Funding requirement results in a net Funding requirement of \$78,387,280 to be funded by assessments, which is an 8.9% increase from the 2021 assessment.

NERC's 2022 budget includes overall staffing of 223.72 full-time equivalent employees (FTEs), an increase of 10.34 FTEs from the 2021 budget. A net of 6.35 FTEs is being added in statutory programs (to 142.65 FTEs) and 4.00 FTEs in administrative programs (to 81.08 FTEs). Increases or decreases in budgeted FTEs for individual programs reflect, in some cases, reallocation of staffing among program areas to match current workloads and resource requirements. The budgeted FTEs for each program reflect an assumed 6.0% vacancy rate, *i.e.*, an adjustment for factors such as personnel attrition, delays in hiring or start date delays.

The 2022 budget reflects increases of 7.8% in Personnel Expenses, 18.5% in Meeting & Travel Expenses, and 5.3% in Operating Expenses, from the 2021 budget. With respect to Meetings & Travel, the budget assumes a partial return to in-person meetings (after an assumption of primarily virtual meetings in the 2021 budget due to the COVID-19 pandemic), including for the Board, MRC, and certain other committees or groups, while continuing to leverage the efficiencies of virtual meetings for other groups. Under Operating Expenses, budgeted 2022 Consultants & Contracts expense is increased by \$982,987 from the 2021 budget; budgeted Office Rent is decreased by \$360,165; and budgeted Office Costs are \$563,433 higher. Budgeted Fixed Asset Additions are \$4,118,750, an increase of \$1,367,250 from the 2021

budget. The \$4,118,750 of budgeted Fixed Asset Additions includes \$2,100,000 for IT equipment leases, which is directly offset by corresponding lease proceeds reflected in Net Financing Activity.

Budgeted CRISP expenditures for 2022 are increased by 9.4% from the 2021 budget. The budgeted CRISP expenditures will be funded 88.3% by participating utilities; the remaining funding will come from assessments and an allocation of NERC’s Interest & Investment Income.

The following table shows NERC’s 2021 and 2022 budgets for its statutory programs:

<u>Program</u>	<u>2021 Budget</u>	<u>2022 Budget</u>
Reliability Standards and Power Risk Issues Strategic Management	\$ 7,856,641	\$ 9,430,925
Compliance Assurance and Organization Registration and Certification	\$13,686,302	\$12,563,971
Compliance Enforcement	\$ 7,327,875	\$ 6,945,963
Reliability Assessments and Performance Analysis	\$12,631,436	\$14,775,082
Situation Awareness	\$ 4,450,989	\$ 5,076,614
Event Analysis	\$ 4,287,213	\$ 3,782,150
E-ISAC (including CRISP)	\$29,821,738	\$32,600,947
Personnel Certification and Continuing Education	\$ 1,736,522	\$ 1,827,619
Training and Education	<u>\$ 1,084,523</u>	<u>\$ 1,025,014</u>
	<u><u>\$82,883,239</u></u>	<u><u>\$88,028,284</u></u>

The 2022 budgeted amounts for statutory programs incorporate budgeted Administrative Services costs of \$36,925,018 (9.6% increase from the 2021 budget). Administrative Services expenses, Fixed Asset Additions, and Net Financing Activity are allocated to statutory programs based on the ratio of FTEs budgeted for each statutory program to total statutory program FTEs.

C. Regional Entity Proposed 2022 Business Plans and Budgets - Overview

18 C.F.R. §39.4(b) requires that the ERO’s annual budget submission include:

the entire annual budget for statutory and non-statutory activities for each Regional Entity, with supporting materials, including . . . each Regional Entity’s complete

business plan and organization chart, explaining . . . the proposed expenditure of funds collected in sufficient detail to justify the requested funding collection and budget expenditures

Section 39.4(b) further states that the ERO’s annual budget submission “shall include the line item budgets for the activities of each Regional Entity that are delegated or assigned to each Regional Entity pursuant to §39.8.” This information is provided in the Regional Entities’ 2022 Business Plans and Budgets in **Attachments 3 through 8**. In *Order No. 672*, the Commission stated that “The ERO must determine, at a minimum, whether each Regional Entity’s proposed budget is adequate to carry out the functions delegated to it.”¹¹ NERC staff worked collaboratively with the Regional Entities in developing their 2022 business plans and budget. Drafts and final proposed versions of the Regional Entities’ proposed business plans and budgets were also reviewed by the NERC FAC.¹²

The table below shows the proposed 2022 budgets for statutory and (if applicable) non-statutory functions for each Regional Entity, and its total (for all jurisdictions) proposed assessment after taking into account other Funding sources.

Regional Entity	Total Budget for Statutory Functions	Budget for Non-Statutory Functions	Statutory Funding Assessment
MRO	\$20,034,361	-----	\$17,832,414 ¹³
NPCC	\$17,465,133	\$ 947,611	\$15,912,313 ¹⁴
ReliabilityFirst	\$26,219,927	-----	\$23,447,945
SERC	\$26,708,260	-----	\$24,798,934
Texas RE	\$17,160,613	-----	\$15,003,365
WECC	\$29,746,899	\$ 2,736,535	\$25,000,000 ¹⁵

¹¹*Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204 (2006) (*Order No. 672*), at P 229.

¹²**Attachment 12** is a memorandum prepared for the NERC Board describing NERC’s participation in preparation of and review of the Regional Entity Business Plans and Budgets.

¹³ MRO’s assessment is allocated \$15,937,255 to the U.S. and \$1,895,159 to Canadian provinces.

¹⁴ NPCC’s assessment is allocated \$9,624,476 to the U.S. and \$6,287,836 to Canadian provinces.

¹⁵ WECC’s assessment is allocated \$21,207,153 to the U.S., \$3,251,269 to Canadian provinces, and \$541,578 to Mexico. The \$25,000,000 amount does not include the WIRAB assessment.

D. Allocation of Statutory Assessments

The total ERO statutory funding requirement for 2022 net of other NERC and Regional Entity income sources, to be funded by assessments, is \$201,080,951, consisting of \$78,387,280 for funding of NERC’s programs and \$122,693,671 for funding of Regional Entity statutory activities and the WIRAB. NERC’s proposed 2022 assessment is allocated \$70,691,258 to the U.S., \$7,432,831 to Canadian provinces, and \$263,191 to Mexico. Based on the aggregate NEL of the United States for 2020 on which the allocation of assessments is based, the U.S. assessment for NERC represents approximately \$0.000018 per end-user kilowatt-hour.¹⁶

NERC proposes allocation of its 2022 assessment to the Regional footprints as follows:

- | | | | |
|--------------------|----------------------------|------------|----------------------------|
| • MRO | \$ 8,588,263 ¹⁷ | • SERC | \$23,127,549 |
| • NPCC | \$ 9,442,667 ¹⁸ | • Texas RE | \$ 6,844,590 |
| • ReliabilityFirst | \$15,353,456 | • WECC | \$15,030,754 ¹⁹ |

Appendix 2 to **Attachment 2** shows, for each LSE or designee within the footprint of each Regional Entity: (i) 2020 NEL data and development of the NEL-based factors used to allocate the NERC and Regional Entity assessments (Appendix 2-A), and (ii) allocation of the total ERO, NERC and Regional Entity statutory assessments (Appendices 2-B, 2-C and 2-D).

NERC has allocated its statutory assessment to the LSEs within each Regional footprint primarily based on NEL, with the following adjustments: In accordance with NERC’s *Expanded Policy on Allocation of Certain Compliance and Enforcement Costs*, the NEL-based assessments for AESO, IESO, New Brunswick and Québec have been adjusted for certain Compliance

¹⁶ The allocation and calculation of assessments for the 2022 budgets is based on NEL data for the second preceding calendar year, 2020, the most current annual NEL data available as of August 2021.

¹⁷ For MRO, \$7,698,403 is allocated to the U.S. and \$889,860 is allocated to Canadian provinces.

¹⁸ For NPCC, \$4,786,540 is allocated to the U.S. and \$4,656,127 is allocated to Canadian provinces.

¹⁹ For WECC, \$12,880,718 is allocated to the U.S., \$1,886,845 is allocated to Canadian provinces, and \$263,191 is allocated to Mexico.

Monitoring and Enforcement Program (CMEP) and Situation Awareness costs, as shown on **Attachment 11**. These adjustments recognize that entities in Ontario, Alberta and New Brunswick expend resources to perform compliance and enforcement activities that otherwise would be performed by NERC or a Regional Entity, and that the compliance and enforcement resources NERC needs for Alberta and Québec are reduced due to the small number of entities subject to compliance and enforcement activities in those provinces. The adjustments also recognize that certain NERC Situation Awareness activities either overlap with Canadian regulatory programs or are not used by these Canadian provinces; therefore they are not allocated a share of the costs. The credits, totaling \$1,569,526, are reflected in Appendix 2-C of **Attachment 2**. The total credit amount is reallocated to all other LSEs (Balancing Authorities or designees) based on NEL. The resulting adjusted NEL-based allocations to the Regional footprints are shown in Appendix 2-C of **Attachment 2**.

NEL has also been used to allocate the Regional Entity assessments, with these exceptions: First, portions of NPCC's Compliance Monitoring and Enforcement and Organization Registration and Certification (CORC) Program costs have been allocated among the six U.S. and Canadian Balancing Authority Areas (BAAs) in NPCC using activity-based methodologies that reflect the nature and scope of the compliance functions and activities performed by NPCC in each Canadian province in its footprint.²⁰ As the Commission has directed,²¹ NPCC CORC costs allocated to the U.S. using these methodologies are then allocated between the New England and New York BAAs based on NEL. Second, WECC's allocation of its assessment to the AESO has been reduced by \$1,174,344 representing WECC CMEP costs

²⁰ The allocation of NPCC CORC Program costs is further described in §V.B.2 below and in greater detail at pages 59-61 of NPCC's 2022 Business Plan and Budget, **Attachment 4**.

²¹ *North American Electric Reliability Corp.*, 128 FERC ¶ 61,025 (2009) (*July 16, 2009 Budget Compliance Order*).

that are duplicative of programs of the AESO.²² The AESO credit amount was allocated to the remainder of the LSEs (Balancing Authorities or designees) in the WECC Region based on NEL.

After allocating the calculated portions of the NERC, Regional Entity and WIRAB funding requirements to Canadian provinces and Mexico (taking into account adjustments to the allocations to Canadian provinces described above), the total ERO statutory assessment for 2022 allocable to U.S. LSEs for which Commission approval is sought is \$181,297,158 (a 5.9% increase from 2021), comprised of the NERC assessment of \$70,691,258 and the aggregate Regional Entity and WIRAB assessments of \$110,605,900.

The funding requirement of each Regional Entity for statutory activities is allocated 100% to that region. The WIRAB funding requirement is allocated 100% to the WECC Region. The table below shows the allocation to the Regions of the 2022 ERO statutory assessment of \$181,297,158 for the U.S. statutory activities of NERC, the Regional Entities, and WIRAB.

Regional Entity	NERC U.S. Assessment	Regional Entity U.S. Assessment	Total U.S. Assessment	Assessment per kWh (2020 NEL)
MRO	\$ 7,698,403	\$ 15,937,255	\$ 23,635,658	\$0.0000550
NPCC	\$ 4,786,540	\$ 9,624,476	\$ 14,411,017	\$0.0000540
ReliabilityFirst	\$ 15,353,456	\$ 23,447,945	\$ 38,801,401	\$0.0000453
SERC	\$ 23,127,549	\$ 24,798,934	\$ 47,926,483	\$0.0000371
Texas RE	\$ 6,844,590	\$ 15,003,365	\$ 21,847,955	\$0.0000572
WECC	\$ 12,880,718	\$ 21,207,153	\$ 34,087,870	\$0.0000474
WIRAB	---	\$ 586,773	\$ 586,773	\$0.0000008
Total	\$ 70,691,258	\$ 110,605,900	\$ 181,297,158	\$0.0000460

NERC obtained from each Regional Entity a listing of LSEs or their designees in the Region and a breakdown of the Region’s 2020 NEL by LSE or designee, and used this data to allocate the total ERO assessment allocated to each Region among LSEs, their designees or other

²² See Appendix C of WECC’s 2022 Business Plan and Budget, **Attachment 8** to this filing.

entities to be billed the assessments within that Region.²³ The amounts of the NERC and Regional Entity assessments allocated to each LSE or designee or other entity to be billed in each Region is shown in Appendix 2-B of **Attachment 2**.²⁴ NERC requests that the Commission approve the statutory assessment amounts for NERC and the Regional Entities allocated to each LSE or designee, shown in Appendix 2-B of **Attachment 2**, so that the LSEs and their designees or other entities may be billed for these assessments in accordance with 18 C.F.R. §39.4(e).

As provided for in Exhibit E to the delegation agreement with each Regional Entity, NERC will directly invoice the approved assessments to LSEs or designees, or to the other entities to be billed, in all Regions except WECC. WECC will invoice LSEs or Balancing Authorities or their designees within the WECC footprint, collect the assessments, and remit the funds collected for the NERC, WECC and WIRAB assessments to NERC.²⁵

IV. NERC BUSINESS PLAN AND BUDGET

A. 2022 NERC Business Plan and Budget by Program

The proposed 2022 staffing and expenditure budgets for each NERC program and department are described in the subsections below. Key overall budget assumptions are

²³ For the NPCC Region, assessments are allocated on the basis of NEL in each BAA (New York, New England, Ontario, Québec, Nova Scotia and New Brunswick), and will be billed to ISO New England and the New York ISO (and similar entities in Ontario, Québec, New Brunswick and Nova Scotia), which will be responsible for billing and collecting assessments from LSEs in their respective footprints. For the Texas RE Region, assessments are allocated on the basis of NEL for the Electric Reliability Council of Texas (ERCOT), which acts as billing agent for the Region; the assessments will be billed to ERCOT, which will bill and collect assessments from LSEs in ERCOT.

²⁴ As a matter of administrative convenience and efficiency, NERC will calculate and bill the assessments to certain entities, referred to as “designees,” based on NEL values that include the NEL for other LSEs served by the designee, or for which the designee is otherwise responsible for assessments. The lists of LSEs and designees for which assessments will be calculated and billed have been provided to NERC by the Regional Entities. NERC is not involved in developing the lists of LSEs or in arrangements between LSEs and designees pursuant to which a designee agrees to accept responsibility for an assessment that would otherwise be billed to the LSE and the LSE agrees to reimburse the designee for the assessment.

²⁵ As approved by the Commission in the *ERO Certification Order* at P 218, for administrative convenience, billing and payment by LSEs of annual assessments less than \$100 will not be required.

discussed at pages 4-6 of **Attachment 2**. Budgeted staffing is increased for some statutory programs and decreased for others, compared to the 2021 budget, based on specific needs in certain programs and ongoing efforts to match staffing with current program needs. Budgeted expenses, Fixed Asset Additions and Net Financing Activity for Administrative Services are allocated to statutory programs based on the ratio of budgeted FTEs in each statutory program to total budgeted statutory program FTEs; therefore, changes in FTEs budgeted for each statutory program for 2022 compared to 2021 impact the allocation of Administrative Services costs among the statutory programs.

1. Reliability Standards and Power Risk Issues Strategic Management

The major activities of the Reliability Standards and PRISM Program are described at pages 13-16 of **Attachment 2**. The 2022 budget is increased 20.0% (\$1,574,284) from 2021 (after decreasing 5.4% in 2021 from 2020), due primarily to an increase in staffing of 2.82 FTEs (anticipating increased standards development activity), increased Meeting & Travel expenses, and increased Consultants & Contracts expense. The budgeted Consultants & Contracts expense of \$158,960 is for engineering support and support for standards and PRISM applications.

2. Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement

The major activities of Compliance Assurance and Organization Registration and Certification are described at pages 18-22 of **Attachment 2**. The 2022 budget is decreased 8.2% (\$1,122,331) from the 2021 budget, due primarily to a decrease of 1.88 FTEs (to 21.62 FTEs) and associated reductions in Personnel Expense and allocated Indirect costs. Continued maturation of and experience with the CMEP processes is enabling NERC to reduce staffing for this program and reallocate these FTEs to other strategic priorities. The 2022 budget is also decreasing from the 2021 budget due to reduced Fixed Asset Addition expenditures as a result of

the completion of the initial development of Align in 2021. Budgeted Consultants & Contracts expenses of \$345,000 includes support for CMEP audits of the Regional Entities and a post-implementation audit of the Align tool, which are split evenly between the Compliance Assurance and Compliance Enforcement budgets. Additionally, budgeted Consultants & Contracts expense, Office Costs, and Fixed Asset Additions related to enhancements, support, and maintenance of Align and the ERO Secure Evidence Locker (SEL), are split evenly between the Compliance Assurance and Compliance Enforcement budgets. Net Financing Activity reflects loan principal payments for the ERO SEL capital investment borrowing in 2020, which are also split evenly between the Compliance Assurance and Compliance Enforcement budgets.

The major activities of Compliance Enforcement are described at pages 25-26 of **Attachment 2**. The 2022 budget is decreased 5.2% (\$381,912) from 2021, due primarily to reductions in Fixed Asset Additions as a result of the completion of the initial development of Align in 2021 mentioned above. Budgeted staffing remains at 12.22 FTEs. Budgeted Consultants & Contracts expense of \$249,000 (\$180,000 increase) is primarily for support for CMEP audits of the Regional Entity and a post-implementation audit of the Align tool. As noted above, these budgeted expenses for audit support and budgeted Align and ERO SEL-related expenditures are shared evenly with Compliance Assurance.

3. Reliability Assessments and Performance Analysis (RAPA)

The major activities of RAPA are described at pages 29-35 of **Attachment 2**. The 2022 budget is increased \$17.0% (\$2,143,646) from 2021 (after decreasing 3.7% from 2020 to 2021), due primarily to a net increase of 0.94 FTE (to 26.32 FTEs), increased Consultants & Contracts expense, and increased Fixed Asset Additions. The increased Consultants & Contracts expense reflects a return to or resumption of projects deferred in 2021 due to cost saving efforts that were implemented to provide relief to industry during the uncertainty of the pandemic. The increased

budget for Fixed Asset Additions includes funds for enhancements to RAPA data systems including the Generating Availability and Transmission Availability Data Systems.

4. Situation Awareness

The major activities of Situation Awareness are described at pages 37-39 of **Attachment 2**. The 2022 budget is increased 14.1% (\$625,625) from 2021, due primarily to increased Personnel Expense, Office Costs, and Fixed Asset Additions. Budgeted staffing is increased by 0.94 FTE from the 2021 budget, to 7.52 FTEs. The increased Office Costs are for software hosting and support costs for the situation awareness tool disaster recovery site and increased license and support costs for situation awareness tools. The increase in Fixed Asset Additions includes situation awareness tool enhancement costs.

5. Event Analysis

The major activities of Event Analysis are described at pages 41-42 of **Attachment 2**. The 2022 budget is decreased 11.8% (\$505,063) from 2021 (after being decreased 9.4% from 2020 to 2021), due primarily to reduced staffing of 0.94 FTE (to 6.58 FTEs) and resulting decreases in Personnel Expenses and allocated Indirect Expenses. Budgeted Consultants & Contracts expense of \$118,158 includes support for applications used by Event Analysis.

6. Electricity Information Sharing and Analysis Center (E-ISAC)

The major activities of the E-ISAC are described at pages 45-49 of **Attachment 2**. In addition to operating the E-ISAC, this program performs the management role for CRISP, a public-private initiative that delivers cybersecurity risk information to E-ISAC member electricity asset owners and operators in the U.S., Canada and Mexico.

The 2022 budget for the E-ISAC, including CRISP, is increased by 9.3% (\$2,779,209) (after decreasing by 4.8% in 2021 from 2020). The CRISP budget comprises 27.5% of the total

E-ISAC budget. Budgeted staffing for the E-ISAC is increased by 4.47 FTEs from the 2021 budget to 43.95 FTEs (after decreasing by 4.70 FTEs in the 2021 budget from 2020), with four new positions being added to the E-ISAC and one new position added to CRISP, offset by the repurposing of one position to other strategic priorities in the company. Budgeted Consultants & Contracts expense of \$8,325,861 is decreased by \$399,780 from 2021, due in part to replacement of two contractor positions with NERC employees. Of the budgeted Consultants & Contracts expense, \$6,154,820 (74.0%) is for CRISP. NERC will continue to subcontract to Pacific Northwest National Laboratory for resources to operate and maintain CRISP, which represents the majority of CRISP Consultants & Contracts expense. Budgeted Office Costs for E-ISAC (including CRISP) are increased by \$384,657, with much of the increase for software licenses, support, and maintenance costs for CRISP analytics and tools.

Under the CRISP master services agreement, the E-ISAC budget for 2022 is supported by \$7,917,385 of Third-Party Funding (88.3% of the CRISP budget) provided by participating utilities. The budgeted Third-Party Funding includes proposed funding to increase the CRISP reserve by \$300,000. Any underrun in the CRISP budget funded by CRISP participants is credited against future participant funding requirements.

7. Personnel Certification and Continuing Education

The Personnel Certification and Continuing Education department manages the System Operator Certification and Continuing Education Programs under oversight of the NERC Personnel Certification and Governance Committee. The major activities of the Personnel Certification and Continuing Education program are described at pages 54-56 of **Attachment 2**. The 2022 budget is increased 5.2% (\$91,097) from the 2021 budget. Budgeted 2022 staffing is 2.82 FTEs, the same as the 2021 budget. Budgeted Consultants & Contracts expense of

\$463,188 will provide support for System Operator testing and examination development, Continuing Education audit and review, maintenance of the System Operator Certification and Continuing Education Database, and a credential maintenance research project.

The Personnel Certification and Continuing Education program receives no funding from assessments. The System Operator Certification Program receives fees, intended to recover the costs (including allocated indirect expenses) of the program, for system operator certification exams and certification renewals. Further, fees charged to continuing education providers offset costs associated with review of courses taken by certified operators to maintain certification.

8. Training and Education

The major activities of the Training and Education Program are described at pages 58-59 of **Attachment 2**. The 2022 budget is decreased 5.5% (\$59,510) from the 2021 budget, due primarily to reduced Consultants & Contracts expense. Budgeted 2022 staffing of 1.88 FTEs is unchanged from the 2021, 2020 and 2019 budgets.

9. Administrative Services

The Administrative Services departments, which support NERC's statutory programs, are: (i) G&A (the Chief Executive Officer, Chief Engineer, Chief Administrative Officer, their staffs, External Affairs, and Board functions); (ii) Legal and Regulatory; (iii) IT; (iv) HR and Administration; and (v) Finance and Accounting. Responsibilities and functions of Administrative Services are described at pages 62-69 of **Attachment 2**.

The total amount budgeted for Administrative Services for 2022 (before provision for Working Capital and Operating Reserves) is increased by 9.6% (\$3,223,972) from 2021 (after decreasing 1.3% from 2020 to 2021). Budgeted staffing is increased by 4.00 FTEs, including 0.94 FTE in G&A, 1.18 FTE in IT, and 1.88 FTE in HR and Administration. Principal areas of budget increase are in Personnel Expenses (reflecting, among other factors, increased FTEs);

increased Meetings & Travel Expense (reflecting partial return to in-person meetings, as noted earlier in this filing); increased Consultants & Contracts expense, including increases for internal audit and corporate risk management support (Legal and Regulatory), applications and infrastructure security support (IT), training and development, compensation and benefits consulting, and documentation and system support (HR), and finance and accounting support; and increased Professional Services costs including Board costs (see next paragraph below). Budgeted Office Rent is decreased by \$360,165 from 2021, based on revised cost estimates for the Washington, D.C. office and reduced maintenance costs for both offices.

The budgeted amount for Independent Trustee expenses for 2022 (included in G&A) is increased by 17.5% (\$294,436) from 2021 (after decreasing by 6.9% from the 2020 to the 2021 budget), due primarily to addition of one trustee,²⁶ a return to in-person Board meetings necessitating related travel, and a planned increase in trustee compensation; partially offset by elimination of trustee search fees.²⁷ Budgeted Independent Trustee Fees are increased by \$187,500 from the 2021 budget, reflecting the additional trustee and estimated increases to trustee compensation, which will be subject to the next independent study on trustee compensation, scheduled for the end of 2021, which will be reviewed by the CGHRC and approved by the Board in accordance with Paragraph 12(a) of the Settlement Agreement for the Commission's 2011 financial performance audit of NERC that requires the NERC Board to review trustee compensation annually.²⁸

²⁶ An additional Board member was added pursuant to Article III, §1.a of the NERC Bylaws.

²⁷ The table on page 64 of **Attachment 2** details budgeted Board of Trustees expenses for 2022 and 2021.

²⁸ Annual review of trustee compensation is also required by the CGHRC's mandate and by NERC's Governance Guidelines.

B. Working Capital and Reserves

NERC's WCOR Policy provides for the categories of Working Capital and Reserves maintained by NERC: Working Capital, Future Obligations Reserve, Operating Contingency Reserve (OCR), System Operator Certification Reserve, CRISP Reserve, and Assessment Stabilization Reserve (ASR). The discussion at page 9, as well as Table B-1, in **Attachment 2** show and explain the amounts proposed to be budgeted in each reserve account for 2022 (target balances at December 31, 2022), as follows:

Working Capital: \$0

NERC maintains a \$4,000,000 line of credit with a major financial institution. Based on cash flow projections and the timing by which assessments are billed and paid, NERC does not project a need to access working capital in 2022 for monthly cash flow needs.

Future Obligation Reserve: \$1,135,565

The projected level for this reserve at December 31, 2021, is \$1,106,301; therefore, this reserve is being reduced by \$29,264 to reach the target balance at December 31, 2022.

Operating Contingency Reserve: \$6,268,207

The WCOR Policy specifies that except as otherwise approved by the NERC Board, the budgeted OCR is to be between 3.5% - 7.0% of NERC's total expenses and Fixed Asset budget excluding the budgets for the System Operator Certification Program and CRISP, which have their own reserves. The projected balance in this reserve at December 31, 2021, is \$6,268,207. NERC is proposing to maintain the OCR at this level during 2022. The projected reserve amount, at 8.1%, is slightly higher than the target range; however, NERC believes maintaining a slightly higher OCR is prudent to provide adequate reserves to accommodate potential one-time costs associated with changes to Atlanta office lease arrangements in 2022.

System Operator Certification Program Reserve: \$667,534

The projected December 31, 2021 reserve balance of the System Operator Certification Program is \$737,930; therefore, a decrease of \$70,396 is budgeted to reach the target balance for this reserve at December 31, 2022.

CRISP: \$800,000

The CRISP Reserve is used solely for certain contingencies in connection with CRISP. The reserve level of \$500,000 at December 31, 2021 is equal to the original CRISP reserve, established in 2015, funded by the participating utilities. Subject to approval of the CRISP participants, NERC proposes to increase the reserve by \$300,000 in 2022, funded by the participants, to provide additional operating reserve for CRISP.

Assessment Stabilization Reserve (ASR): \$2,521,000

NERC did not collect any Penalties during the 12 months ended June 30, 2021. The balance in the ASR at December 31, 2021 will be the current amount of \$2,521,000.

NERC is not proposing to release any funds from the ASR in 2022 to reduce the 2022 assessment, but rather to maintain the current balance in the ASR for use in reducing or stabilizing assessments in future years.

Total Budgeted Working Capital and Reserves at 12/31/2022: \$11,392,306.

Based on the beginning Working Capital and Reserves balances at January 1, 2021, the projected funding, expenditures, and net financing activity for 2021, the budgeted funding, expenditures, and net financing activity for 2022, and the target Working Capital and Reserves balances at December 31, 2022, Table B-1 (page 71) in **Attachment 2** shows the calculation of the resulting adjustment (increase) of \$229,604 to NERC's 2022 assessment. To the extent the actual year-end 2021 Working Capital and Reserves balances are higher than the projected amounts shown on Table B-1, the excess funds will be included in the OCR, System Operator Certification Program Reserve, or CRISP Reserve, as applicable, and subject to the limitations and authorities regarding their use as set forth in the WCOR Policy.

C. Capital Financing

As originally described in NERC's 2014 Business Plan and Budget (Docket No. RR13-9-000), NERC is financing certain capital expenditures over multi-year periods through a capital financing program. NERC secured an \$8.0 million non-revolving credit facility, approved by the Board in May 2020 and closed in July 2020, to fund capital expenditures from July 2020 to December 2021 for software application development projects and hardware equipment that benefit the ERO Enterprise. Authorized borrowings under the facility are limited to amounts authorized by the NERC Board and the Commission in each year's Business Plan and Budget. As described in NERC's June 8, 2020 Petition in Docket No. RR19-8-001, NERC financed \$2.0 million of ERO SEL costs in late 2020 and 2021. The credit facility provides for a floating interest rate; a 3.0% interest rate is projected in 2022 for the ERO SEL borrowing. The loan will be amortized over five years and can be prepaid without penalty.

NERC's projected outstanding debt balance at December 31, 2021 is \$1,625,000 and at December 31, 2022 is \$1,250,000. As shown in Table B-12 of **Attachment 2**, the 2022 Fixed Asset Additions budget, excluding \$2,100,000 of capital lease assets that are directly offset by corresponding lease financing proceeds, is \$2,018,750, a decrease of \$732,750 from the 2021 budget. However, NERC is not planning to use the credit facility to fund any 2022 capital projects. The tables in Exhibit C show projected year-end outstanding debt balances and the annual payments for debt service (principal repayment and interest) for 2021, 2022, 2023 and 2024; the budgeted debt service payments for each year are \$430,000. The actual interest expense will be reflected in the quarterly budget-to-actual variance reports that NERC posts on its website, reviews in open session with the NERC FAC, and files with the Commission. Any savings in actual interest expense compared to budgeted expense will be captured and reported as a contribution to the OCR, expenditures from which are subject to the terms of NERC's WCOR Policy.

V. REGIONAL ENTITY BUSINESS PLANS AND BUDGETS

A. Development of the Regional Entity Business Plans and Budgets

NERC management and staff worked collaboratively with the Regional Entities on development of their 2022 Business Plans and Budgets. Drafts of each Regional Entity's Business Plan and Budget were posted on the NERC website on May 24, 2021. NERC also reviewed and provided feedback on these drafts. The draft Business Plans and Budgets were also the subject of presentations and discussion at meetings of the NERC FAC.

Additionally, each Regional Entity posted one or more drafts of its 2022 Business Plan and Budget on its own website for comment by its stakeholders, and/or provided other opportunities for stakeholder input, as follows:

MRO: MRO posted its draft 2022 Business Plan and Budget for comments on May 12,

2021. MRO's 2022 Business Plan and Budget was presented in multiple meetings of the MRO Board and its stakeholders. There were no written or oral challenges to the 2022 Business Plan and Budget. On June 24, 2021, MRO's Board of Directors approved a resolution that approved the 2022 reserves and 2022 budget, and affirmed that the budget is sufficient to complete MRO's delegated responsibilities.

NPCC: NPCC's draft 2022 Business Plan and Budget was presented to the NPCC FAC on April 20, 2021, and to its Board of Directors on May 5, 2021. NPCC's draft 2022 Business Plan and Budget was posted on its website for stakeholder review and comment on May 5, 2021, with a request for comments by May 27, 2021. NPCC received one stakeholder comment letter. The NPCC Board of Directors approved NPCC's 2022 Business Plan and Budget on June 23, 2021.

ReliabilityFirst: On April 16, 2021, the ReliabilityFirst Board of Directors approved the first draft of its 2022 Business Plan and Budget, after which it was posted to the ReliabilityFirst website for a 30-day industry review and comment period. ReliabilityFirst did not receive any comments. The final 2022 Business Plan and Budget was approved by the ReliabilityFirst Board on June 18, 2021.

SERC: On March 31, 2021, the draft 2022 Business Plan and Budget was presented to, and approved by, SERC's Board of Directors. The draft budget was then posted on the SERC public website for a 30-day comment period beginning April 13, 2021. No comments were received. The final 2021 Business Plan and Budget was approved for submittal to NERC by the Board Executive Committee at its June 24, 2021 meeting.

Texas RE: Texas RE's 2022 Business Plan and Budget was presented in multiple meetings of the Texas RE Board and Member Representatives Committee. The draft 2022 Business Plan and Budget was posted for a 7-day comment period before being presented to the Texas RE Board of Directors for final approval. There were no written or oral challenges to the 2022 Business Plan and Budget. The Board of Directors approved Texas RE's 2021 Business Plan and Budget on May 19, 2021.

WECC: WECC's draft 2022 Business Plan and Budget was posted on its website on April 26, 2021, for a fifteen business day comment period. The WECC Board of Directors and WECC stakeholders were notified of the posting. One set of comments was received from stakeholders during the comment period. Additionally, one set of comments was received from the WECC Member Advisory Committee Budget Subcommittee. WECC's Board approved WECC's 2022 Business Plan and Budget on June 16, 2021.

NERC's review of the draft Regional Entity business plans and budgets focused on:

1. Adequacy of the resources and activities to perform delegated functions;
2. Alignment of the Regional Entity's goals, objectives and major activities to the *ERO Enterprise Long-Term Strategy* and related focus areas;
3. Efforts to improve efficiency and control costs;
4. Quality and completeness of the financial information presented, including:
 - a. Conformance with Commission budget reporting requirements and with the ERO

- Enterprise common presentation format,
- b. Separation of statutory and non-statutory activities,
 - c. Supporting detail, including explanations for significant changes from the entity's 2021 budget,
 - d. Working capital and operating reserve budgets, policies and controls, and
 - e. Compliance with any budget or audit related orders from the Commission.

Through the processes described above and in §III.A, NERC determined that each Regional Entity 2022 Business Plan and Budget provides necessary and adequate resources to carry out the Regional Entity's delegated functions in 2022.²⁹

The Regional Entities submitted their final 2022 Business Plans and Budgets, as approved by their respective governing bodies, to NERC in June and July 2021. These Business Plans and Budgets were submitted to the NERC FAC and Board, were reviewed at the FAC's meetings held on July 22 and August 11, 2021, and were approved by the Board at its August 12, 2021 meeting for submission to the Commission.

In developing their 2022 Business Plans and Budgets and proposed assessments, the Regional Entities took into account the need to maintain appropriate working capital and operating reserves. Table B-1 in each Regional Entity's 2022 Business Plan and Budget shows the calculation of the increase or decrease to its 2022 assessment to achieve the Regional Entity's target Reserves balance at December 31, 2022. The basis for each Regional Entity's target Reserves balance is stated on its Table B-1 or elsewhere in its Business Plan and Budget.

B. Summaries of Regional Entity Business Plans and Budgets

1. MRO – Attachment 3

MRO's 2022 statutory budget is \$20,034,361, an increase of \$1,622,159 (8.8%) from its

²⁹ In reviewing the Regional Entity Business Plans and Budgets, in accordance with the directive in the *ERO Certification Order*, P 203, NERC afforded the Regional Entity Business Plans and Budgets no presumption of reasonableness due to having been approved by the Regional Entities' governing bodies.

2021 budget. MRO's proposed assessment for 2022 is \$17,832,414, an increase of \$849,162 (5.0%) from its 2021 and 2020 assessments. The increased assessment reflects the net of (i) the increased budget, (ii) a \$97,746 increase in Penalty collections compared to the 2021 budget, and (iii) use of \$1,743,698 of Assessment Stabilization Reserves (ASR), an increased use of ASR by \$675,251 from the 2021 budget.

MRO is budgeting increased staffing for 2022 of 5.00 FTEs, reflecting net increases of 0.98 in statutory programs (including an increase of 1.51 FTEs in its Compliance and Situation Awareness and Infrastructure Security programs, which are areas of particular focus for MRO in 2022) and 4.02 FTEs in administrative programs (including increased staffing of 1.98 FTEs in IT). Total budgeted 2022 staffing is 71.00 FTEs, including 36.56 FTEs in MRO's Compliance programs. The 2022 budget for Administrative Services is \$7,942,270, an increase of \$782,583.

As described in its 2020 Business Plan and Budget, MRO established an ASR into which Penalty collections received in the 12 months ending the previous June 30 would be deposited, and from which funds would be released to reduce year-to-year fluctuations in the amount of assessments needed to fund operations. For 2022, to reduce assessments, MRO proposes to use the \$458,250 of Penalties collected between July 1, 2020 and June 30, 2021 and, additionally, to release \$1,743,698 from the ASR. Pursuant to §1107.4 of the NERC ROP, NERC and MRO request that the Commission approve an exception to the requirement of §1107.2 that all Penalties collected during the 12 months ended the previous June 30 be used to reduce assessments in the following year, in order to allow MRO to utilize Penalties collected prior to July 1, 2020, and held in the ASR, to reduce its 2022 assessment. MRO's projected reserves balance at December 31, 2021 is \$7,541,460 (Working Capital - \$2,962,394; 30-day cash reserve - \$1,513,332; ASR - \$3,065,734); with the proposed use of Penalties and ASR to reduce the 2022

assessment, MRO projects a reserves balance at December 31, 2022 of \$5,339,512 (Working Capital - \$2,806,196; 30-day cash reserve - \$1,669,530; ASR - \$863,786).

2. NPCC – Attachment 4

NPCC's statutory budget for 2022 is \$17,465,133, an increase of \$1,024,485 (6.2%) from its 2021 budget. NPCC's 2022 assessment is \$15,912,313, an increase of \$757,729 (5.0%) from 2021. The increase in assessments is the net result of (i) the increased budget; (ii) application of \$201,132 of Penalty collections from the NPCC ASR (discussed further below) to reduce assessments, the same amount of Penalty collections used to reduce the assessment in the 2021 budget; (iii) a decrease in budgeted Workshops & Miscellaneous Revenue of \$33,750 from the 2021 budget; (iv) a decrease in budgeted Interest & Investment Income of \$27,799 from the 2021 budget; and (v) a reduction in reserves of \$1,289,473 versus a reduction of \$961,169 in the 2021 budget (*i.e.*, the adjustment for reserves reduces the 2022 assessment by \$328,304 more than in the 2021 budget).

NPCC's 2022 budget reflects increased staffing of 7.79 FTE from its 2021 budget, comprised of a 6.72 FTE increase in statutory programs (including increase of 5.50 FTEs in its CMEP) and a net 1.07 FTE increase in Administrative programs (including 1.30 FTE increase in IT). Budgeted staffing is 49.90 FTEs, comprised of 38.95 FTEs for statutory programs and 10.95 FTEs for Administrative programs. Budgeted 2022 Administrative Services expenditures are \$6,758,932, an increase of 5.4%.³⁰

NPCC has created an ASR for the purpose of receiving Penalty collections and releasing funds from the ASR as appropriate to stabilize year-to-year fluctuations in assessments. NPCC

³⁰ NPCC budgets all Office Rent, Office Costs, Professional Services, and Miscellaneous Operating Expense for the company as Indirect Expenses, rather than in the statutory program budgets, and allocates them to the statutory programs on the basis of the proportion of direct statutory FTEs in each program.

collected \$165,069 in Penalties during the 12 months ended June 30, 2021. NPCC proposes to place the \$165,069 in Penalty collections into the ASR (resulting in a balance of \$567,937 in the ASR at December 31, 2021); and to use \$201,132 of the funds in the ASR to reduce its 2022 assessment (resulting in a balance of \$366,805 in the ASR at December 31, 2022). This is the same amount of funds from the ASR as were used to reduce NPCC's assessment for 2021. Pursuant to §1107.4 of the NERC ROP, NERC and NPCC request that the Commission approve an exception to the requirement of ROP §1107.2 that Penalties collected during the 12 months ended the previous June 30 be used to reduce assessments in the following year, to allow NPCC to implement the proposed ASR transactions.

NPCC's target Reserves balance at December 31, 2022 is \$4,249,830 (\$1,455,370 for Operating Reserve, \$2,427,656 for Working Capital, and \$366,805 for the ASR).³¹ The Working Capital target is 13.90% of 2022 budgeted expenditures, within its Board-approved range of 8.33% to 25.00% of budgeted expenditures.³² The Operating Reserve target is 8.33% of budgeted expenditures. NPCC's projected aggregate Reserves balance at December 31, 2021 is \$5,740,435 (Operating Reserve - \$1,369,999; Working Capital - \$3,802,499; ASR - \$567,937); thus, NPCC's 2022 assessment is reduced by an aggregate \$1,490,605 (including \$201,132 released from the ASR) to reach its desired Reserves at December 31, 2022.³³

For purposes of determining the assessments to recover NPCC's statutory funding

³¹ The NPCC Board established a Business Continuity Reserve (BCR) in 2017 to be drawn upon, with Board approval, for succession-related activities associated with retirement and other suddenly changing staffing requirements which could result from coincident multiple staff retirements. The purposes for which the BCR was established have been accomplished in 2021 and the remaining \$411,361 in the BCR is being transferred to the Working Capital Reserve in 2021, resulting in a zero balance in the BCR at December 31, 2021.

³² 8.33% approximates 30 days, and 25% approximates 90 days, of budgeted expenditures.

³³ The adjustments for the other reserves categories are: (i) reduction to assessments of \$1,374,843 to achieve the target Working Capital Reserve; and (ii) increase to assessments of \$85,370 to achieve the target Operating Reserve.

requirement, compliance program costs are allocated among the Independent System Operators/BAAAs within NPCC in New York, New England, Ontario, Québec, New Brunswick and Nova Scotia. NPCC's allocation methodology for Regional Entity compliance program costs applies a rolling seven-year compliance cost average to total compliance program expenses for the current budget year to allocate compliance program costs among U.S. and Canadian BAAs. To develop this seven-year average, for each of the seven years, costs attributed to CORC Fundamentals are allocated between the BAAs in the U.S. and Canada on a NEL basis. Audits and Investigations-related costs are allocated between U.S. and Canadian BAAs, and among the Canadian provinces, using an audit-based methodology which incorporates relative costs based on categories of compliance audits which are reflective of their size and complexity as well as the different compliance models used in NPCC due to its international nature. Mitigation and Enforcement-related costs are allocated between U.S. and Canadian BAAs and among the Canadian provinces using an enforcement activity-based methodology that uses historical data on each BAA's percentage of violations, mitigation plans and settlement agreements. The resulting seven-year average allocation percentage of total combined compliance costs attributable to each BAA is then applied to total compliance program expenses for the current budget year to allocate current budget year costs among U.S. and Canadian BAAs. The portions of the costs allocated to the New York and New England BAAs are allocated between them based on NEL (as required by PP 40-41 of the *July 16, 2009 Budget Compliance Order*). Within the Canadian portion of NPCC, the costs attributable to compliance functions performed by NPCC on behalf of provincial governments or regulatory authorities are allocated consistent with the specific Memorandum of Understanding or Agreement with each province. Appropriate adjustments to the costs to be allocated are made for Penalty payments

received by NPCC from U.S. registered entities (used solely to offset costs charged to U.S. BAAs). In addition, any NPCC sub-regional reliability assessment costs that will be incurred in response to U.S.-only regulatory initiatives will be considered for allocation to U.S.-only BAAs, consistent with §1102 of the NERC ROP. The discussion and table on pages 59-61 of **Attachment 4** explains these assessment methodologies and shows the development of the 2022 assessments by BAA within NPCC to recover NPCC's statutory funding requirement.

3. ReliabilityFirst – Attachment 5

ReliabilityFirst has a statutory budget for 2022 of \$26,219,927, an increase of \$1,434,435 (5.8%) over its 2021 budget. ReliabilityFirst's proposed assessment for 2022 is \$23,447,945, an increase of \$682,950 (3.0%) over 2021, due to the net effect of (i) the increased budget; (ii) a reduction of \$1,051,319 in Penalties from the 2021 budget; and (iii) an increase for Working Capital Reserve of \$766,700, compared to an increase for Working Capital Reserve of \$2,569,502 in the 2021 budget (*i.e.*, the increase for Working Capital Reserve is \$1,802,804 less than in the 2021 budget). The largest department budget increase is \$1,283,635 for the CMEP.

ReliabilityFirst is budgeting an overall staffing increase of 4.25 FTEs, comprised of 3.00 additional FTEs in statutory programs (all in the CMEP) and 1.25 additional FTEs in administrative programs. Total budgeted staffing is 88.60 FTEs, including 53.00 FTEs in the Reliability and Risk Analysis and CMEP programs. ReliabilityFirst's total budgeted 2022 Administrative Services expenditures are \$7,762,147, an increase of \$671,581, due primarily to increases in Personnel expense, Consultants & Contracts (primarily IT-related costs), Office Costs (primarily Computer Supplies & Maintenance) and Professional Services (one independent director being added).

ReliabilityFirst's target Working Capital and Operating Reserve balance at December 31, 2022, approved by its Board, is \$7,743,577 (\$6,743,577 for Working Capital and Working

Capital Reserve (WCR) and \$1,000,000 for Operating Reserve). ReliabilityFirst's projected Working Capital, WCR and Operating Reserve balance at December 31, 2021 is \$7,134,952 (\$6,134,952 in Working Capital and WCR, and \$1,000,000 in Operating Reserve). As a result, the requested assessment for 2022 reflects an increase of \$608,625 (for Working Capital and WCR, to meet the Board-approved target), which, along with application of Penalties collected in the 12 months ended June 30, 2021 (\$3,488,861) and other funding sources (\$50,000), and an adjustment to reserves of \$158,074 due to transactions recorded on the Statement of Financial Position that do not impact the Statement of Activities, produces a 2022 assessment of \$23,447,945.

4. SERC – Attachment 6

SERC's 2022 statutory budget is \$26,708,260, an increase of \$879,181 (3.4%) from its 2021 budget. SERC's proposed 2022 assessment of \$24,798,934 is an increase of \$1,285,048 (5.5%) from 2021. The increased assessment is the net result of (i) the increased budget; (ii) an increase of \$20,000 compared to the 2021 budget in Penalty collections proposed to be released from SERC's Assessment Stabilization Reserve (ASR); (iii) a decrease in Funding from Workshops & Miscellaneous of \$9,000 from the 2021 budget, and (iv) a decrease in assessments of \$513,326 to achieve SERC's targeted Working Capital Reserve (WCR) amount, compared to a decrease in assessments of \$930,193 for this purpose in the 2021 budget (the WCR adjustment decreases SERC's 2022 assessment by \$416,867 less than in its 2021 budget).

SERC's budgeted 2022 staffing for statutory programs and administrative functions is 104 FTEs, an increase of 4.0 FTEs from 2021. Budgeted staffing for statutory programs is increased by 0.85 FTE from the 2021 budget, to 68.25 FTEs, including staffing for the CMEP of 50.45 FTEs. Budgeted staffing for corporate (administrative) services is being increased by a net of 3.15 FTEs from 2021, including an increase of 3.50 FTEs in the Analytics & IT department.

SERC's budgeted 2022 expenditures for corporate services functions are \$12,138,686, an increase of \$361,059, with increased Personnel expense for the additional FTEs substantially offset by corresponding decreases in reliance on and costs for Consultants & Contracts.

SERC proposes (i) to place \$765,000 of Penalties collected in the 12 months ended June 30, 2021 into the SERC ASR, and (ii) to release \$1,200,000 of Penalties from the ASR to offset SERC's 2022 assessment (leaving \$2,165,000 in the ASR at December 31, 2022 for future use to stabilize assessments). Pursuant to §1107.4 of the NERC ROP, NERC and SERC request Commission approval of the uses of Penalty collections described in the preceding sentence, as exceptions to the requirement in §1107.2 of the ROP that Penalties collected during the 12 months ended June 30 should be used to reduce assessments in the following budget year. SERC's target WCR at December 31, 2022 is \$1,600,377. SERC's projected WCR at December 31, 2021 is \$2,113,703; therefore, in addition to applying \$1,200,000 of Penalty collections as described above, and \$196,000 of other Funding sources, SERC proposes to decrease its 2022 assessment by \$513,326 to reach its target WCR at December 31, 2022.

5. Texas RE – Attachment 7

Texas RE's 2022 statutory budget is \$17,160,613, an increase of \$2,949,075 (20.8%) from its 2021 budget, with the principal area of increase being the CMEP (\$2,710,113 increase). Texas RE's proposed 2022 assessment amount is \$15,003,365, an increase of \$1,659,237 (12.4%) from its 2021 assessment. The increased assessment is the net result of (i) the increased budget, (ii) increased Penalty collections by \$389,555 from the 2021 budget, (iii) a decrease in budgeted Interest income of \$25,000, and (iv) a decrease in assessments for Reserves of \$1,583,498, as compared to a decrease for Reserves in the 2021 budget of \$618,943 (*i.e.*, the adjustment for Reserves decreases assessments by \$964,556 compared to 2021).

Texas RE's budgeted 2022 staffing is 66.00 FTEs, an increase of 3.00 FTEs from the

2021 budget. The 3.00 FTEs are being added in the CMEP (resulting in total CMEP staffing of 41.75 FTEs), with no staffing changes budgeted for other statutory or administrative programs. Texas RE's budgeted 2022 Administrative Services expenditures are \$7,190,937, an increase of \$1,156,462, due primarily to increased Personnel expense, increased Consultants & Contract expense for IT, a \$393,545 increase in Office Rent and Utilities due to moving to larger offices, and one-time office relocation costs of \$320,000 (budgeted as Other Non-Operating Expense).

Texas RE's target total reserve balance at December 31, 2022 is \$2,586,119, comprised of \$1,330,000 for Operating Reserve (a reduction for 2022 from its Board-approved policy of a \$2,000,000 Operating Reserve) and \$1,256,119 for Assessment Stabilization. Texas RE's projected reserve balance at December 31, 2021 is \$4,169,616 (Operating Reserve - \$2,040,000; Assessment Stabilization - \$2,129,616). In addition to using Penalty collections of \$558,750 and other funding of \$15,000 to reduce its 2022 assessments, Texas RE proposes to use \$1,583,497 of Operating Reserves and Assessment Stabilization funds to reduce the proposed 2022 assessment to \$15,003,365.

6. WECC – Attachment 8

WECC's 2022 statutory budget is \$29,746,899, an increase of \$1,141,870 (4.0%) from its 2021 budget, with the principal area of increase being the CMEP. WECC's proposed 2022 statutory assessment is \$25,000,000, the same amount as in 2021. The assessment is unchanged due to the net effect of (i) the increased budget, (ii) an increase of \$1,799,000 in Penalty collections used to reduce assessments, (iii) a decrease in budgeted Funding from Workshops & Miscellaneous of \$235,300, (iv) a decrease in budgeted Interest income of \$90,499 and (v) a net increase in assessments for reserves of \$855,302 as compared to an increase for reserves of \$523,971 in the 2021 budget (*i.e.*, the adjustment for reserves increases assessments by \$331,331 as compared to the 2021 budget).

WECC's budgeted staffing for 2022 is 152.5 FTEs, an increase of 4.0 FTEs from its 2021 budget. Budgeted 2022 staffing is comprised of 110.55 FTEs (net increase of 4.0 FTEs) in statutory programs (including an increase of 5.0 FTEs in the CMEP) and 41.95 FTEs (no change from 2021) in Corporate Services (administrative functions). WECC's budgeted 2022 Corporate Services expenditures are \$11,089,002, an increase of \$526,720 from its 2021 budget.

In December 2020, following review and approval by its Board, WECC entered into an agreement with Peak Reliability (Peak) in connection with Peak's termination of operations as Reliability Coordinator (RC) for the Western Interconnection and its corporate dissolution, to receive a donation from Peak's remaining funds. Peak ceased all RC operations in December 2019 and dissolved as a corporate entity in December 2020. As a tax-exempt mutual benefit corporation under Section 501(c)(4) of the Internal Revenue Code, Peak was required by Internal Revenue Service rules (and by its own non-profit governance documents) to donate any funds remaining after discharging liabilities to another non-profit organization. Peak proposed to donate its remaining funds to WECC to support WECC's reliability and security mission, subject to a hold-back agreement described below. After review and approval of this proposal by the Board, and opportunity for stakeholder comment, including in the development process during 2020 of the 2021 Business Plan and Budget³⁴ and at the September 2020 WECC Board meeting, WECC entered into a Donation Holdback Agreement with Peak. **Attachment 13** is a copy of the Donation Holdback Agreement. Per the agreement, Peak donated \$4,127,000 of its remaining funds to WECC. Of the total amount, \$3,827,000 will be used for projects that are focused on the reliability and security of the Western Interconnection. This portion was recorded as a donation to be used for statutory (§215) purposes in WECC's 2020 financial results, with the

³⁴ NERC notes that WIRAB submitted comments to WECC supporting use of the Peak Reliability Donation to support interconnection-wide reliability projects.

understanding that FERC approval of this treatment would ultimately be required. As provided in the Donation Holdback Agreement, Peak requested and WECC agreed to hold \$300,000 for a period of five years to pay any Peak bills that may be presented following Peak's formal dissolution on December 31, 2020. This amount was recorded as a non-statutory liability in WECC's 2020 financial results. The statutory amount is currently included in a Peak Reliability Donation Reserve.

NERC notes that in connection with Peak's separation from WECC and startup in 2014 as RC for the Western Interconnection (replacing WECC in that registered entity function), WECC transferred approximately \$5.8 million of its Working Capital Reserve to Peak. Therefore, Peak's donation of remaining funds to WECC represents a return of start-up capital from Peak to WECC. Additionally, on several previous occasions, WECC has received substantial funding from third-party sources which WECC has used to fund significant reliability-and security-related projects for the Western Interconnection that were included in WECC's §215 budgets. In 2010-2013, WECC received grants from the U.S. Department of Energy which, as included in WECCs 2010 (amended) through 2014 Business Plans and Budgets,³⁵ it used as funding for the Western Interconnection Synchrophasor Project and for transmission expansion planning in the Western Interconnection.

NERC also notes that WECC conducted an open and transparent process to engage the WECC Board and stakeholders to determine how the Peak Reliability Donation funds will be used. These included outreach activities during 2021 by the WECC RAPA staff to identify potential projects for which the funds could be used, including through presentations at meetings of WECC technical committees. The two projects being proposed in the WECC 2022 Business

³⁵ FERC Dockets RR09-9-0000 (2010), RR10-13-000 (2011), RR11-7-000 (2012), RR12-13-000 (2013), and RR13-9-000 (2014).

Plan and Budget for funding from the Peak Reliability Donation Reserve were described in drafts of the WECC 2022 Business Plan and Budget posted in April 2021 for stakeholder comment, and two overview webinars for stakeholders were held during the comment period. Additionally, the proposed projects were reviewed at two meetings of the WECC Member Advisory Committee Budget Subcommittee. Finally, in its comments on the WECC 2022 Business Plan and Budget, WIRAB commended WECC on its efforts to engage stakeholders in identifying the best use of the Peak Reliability Donation funds.

As noted, WECC has sufficiently developed two reliability- and security-related projects to warrant inclusion in WECC's 2022 Business Plan and Budget, as projects to be funded from the Peak Reliability Donation Reserve: (1) the creation of a system planning data management system (included in WECC's 2022 IT budget); and (2) improvements to the Multi-Area Variable Resource Integration Convolution resource adequacy assessment tool or procurement of an off-the-shelf probabilistic resource adequacy tool (included in WECC's 2022 RAPA budget). For 2022, WECC proposes to use \$400,000 from the Peak Reliability Donation reserve to fund the above-referenced projects. WECC reports that the stakeholder feedback received for these projects, and for the use of funds from the Peak Reliability Donation Reserve to fund them, was positive and supportive. WECC evaluated the proposed projects (and will evaluate projects proposed in the future) to ensure they support WECC's broad reliability and security mission in the Western Interconnection. As described above, the proposals were discussed (and future proposals will be discussed) with the executive team, relevant committees, and stakeholders generally via targeted outreach, technical committees, and as part of the Business Plan and Budget process.

To fund future reliability and security projects from the Peak Reliability Donation

Reserve, WECC will use a similar process, and will look first to include proposed projects and the corresponding use of funds in the applicable WECC Business Plan and Budget. If the timing of the project is such that inclusion in the upcoming Business Plan and Budget is not feasible (*e.g.*, would unduly delay the funding and initiation of the project), and the proposed expenditure from the Peak Reliability Donation Reserve exceeds \$500,000, WECC and NERC will file a petition with the Commission requesting approval to spend funds from the Peak Reliability Donation Reserve on the project and explaining the project is an appropriate expenditure of funds from the Reserve. NERC and WECC believe that \$500,000 is an appropriate threshold for the submission of a request for approval as it represents less than 2% of WECC's annual statutory budget (*e.g.*, is about 1.7% of the proposed 2022 statutory budget), so expenditures funded from the Reserve on projects of less than \$500,000 are not significant in the context of WECC's overall statutory budget. Funding for and expenditures on projects funded from the Peak Reliability Donation Reserve will also be reflected in WECC's annual comparison of actual to budgeted costs which WECC submits to NERC and NERC files with the Commission.

NERC and WECC request Commission approval for WECC to (1) record the \$3,827,000 Peak donation amount (*i.e.*, net of the \$300,000 holdback for payment of potential post-termination bills) as a donation to be used for statutory (§215) purposes, (2) segregate the funds in a separate Peak Reliability Donation Reserve account in WECC's accounting system, and (3) release funds from this reserve account for specific projects and uses that support WECC's reliability and security mission in the Western Interconnection, with the projects and uses and funding to be described in either a WECC annual Business Plan and Budget, or, if the proposed project or use to be funded from the Peak Reliability Donation Reserve exceeds \$500,000, in a separate petition to the Commission for approval to spend funds from the Reserve on the project.

WECC's projected Working Capital Reserve (WCR) balance at December 31, 2022 is \$9,665,724, based on a Board-approved WCR balance of one to three months of Personnel, Meeting, and Operating expenses. WECC projects a WCR balance of \$8,410,422 at December 31, 2021. Therefore, WECC's WCR is projected to increase by \$1,255,302 by December 31, 2022. The release of \$400,000 from the Peak Donation reserve in 2022, the use of \$5,298,000 of Penalties collected from July 1, 2020 to June 30, 2021, and the use of \$304,201 from other funding sources, to reduce assessments, enables WECC to maintain its 2022 assessment at \$25,000,000, the same assessment as 2021.

WECC's allocation of its 2022 assessment to the AESO for Alberta has been reduced by \$1,174,344, representing WECC compliance costs (including allocated Indirect Costs and Fixed Asset spending) considered duplicative of the AESO's compliance and enforcement programs. The AESO credit amount is allocated to the remainder of the LSEs (Balancing Authorities or designees) in the WECC region based on NEL. Appendix C to WECC's 2022 Business Plan and Budget (**Attachment 8**) shows calculation of the adjustment to the AESO assessment.³⁶

VI. WIRAB FUNDING REQUEST

In its Order issued July 20, 2006, in Docket No. RR06-02-000, the Commission concluded that reasonable costs incurred by WIRAB for activities under §215(j) of the FPA can be funded through the ERO funding process.³⁷ As specified in P 35 of the *WIRAB Order*, WIRAB submitted to NERC a proposed 2022 Business Plan and Budget for §215(j) activities (**Attachment 9**). NERC has reviewed WIRAB's submission and believes it complies with P 35 of the *WIRAB Order*.

³⁶ The adjustment to the WECC assessment to the AESO is provided for in a memorandum of understanding entered into effective July 15, 2010 among NERC, WECC and the AESO.

³⁷ *Order on Petition to Establish a Regional Advisory Body for the Western Interconnection*, Docket No. RR06-2-000, 116 FERC ¶61,061 (2006) (*WIRAB Order*), PP 33-37.

WIRAB's 2022 budget for expenses is \$918,900, a \$286,900 (23.8%) decrease from its 2021 budget. WIRAB's budgeted staffing for 2022 is 3.00 FTEs, a 1.75 FTE decrease from 2021; as a result its budgeted 2022 Personnel Expense is \$314,400, \$138,900 less than its 2021 budget. WIRAB's budget includes \$100,000 for Consultants & Contracts expense, the same amount as its 2019, 2020 and 2021 budgets, to provide technical expertise to WIRAB related to improved grid operating practices, Reliability Standards and compliance and support WIRAB in providing technically sound advice to WECC, NERC and the Commission under FPA §215(j).

WIRAB's proposed statutory assessment for 2022 is \$698,700, a \$287,600 (29.2%) decrease from its 2021 assessment, reflecting (i) the decreased budget, (ii) a decrease of \$2,000 in budgeted Interest income, and (iii) a \$219,200 decrease for Working Capital Reserve (WCR), compared to a \$216,200 reduction for WCR in the 2021 budget. The reduction for WCR is based on a WCR target of \$689,200 at December 31, 2022, as compared to a projected WCR at December 31, 2021 of \$908,400. WIRAB's assessment of \$698,700 is allocated \$586,773 (84.0%) to the U.S. portion, \$99,937 (14.3 %) to the Canadian portion, and \$11,990 (1.7%) to the Mexico portion, of the Western Interconnection.

VII. METRICS RELATED TO NERC AND REGIONAL ENTITY BUDGETS

Consistent with NERC's February 18, 2015 *Request to Revise Certain "Metrics" Filing Components for its Annual Business Plan and Budget Filings and its Annual Actual Cost-to-Budget True-Up Filings* in Docket No. RR15-6-000, and the Commission's June 15, 2015 letter order approving NERC's request, NERC is providing the metrics information listed below in **Attachment 14** and **Attachment 15** to this filing.

Attachment 14 provides the following information relating to the Regional Entities' operations based on their 2022 Business Plans and Budgets:

1. Numbers of registered entities

2. Numbers of registered functions
3. Total NEL (GWh)
4. NEL (GWh) per registered entity
5. Total ERO Funding (sum of assessments plus Penalty sanctions collections)
6. ERO Funding per registered entity
7. ERO Funding per registered function
8. Total Budget (sum of Total Expenses plus increase/decrease in Fixed Assets)
9. Total Budget per registered entity
10. Total Budget per registered function
11. Total Statutory FTEs (FTEs are based on working 2,080 hours per year)
12. Registered entities per Statutory FTE
13. Registered functions per Statutory FTE
14. Total Compliance Budget (sum of Direct Expenses, Indirect Expenses allocated to the Compliance Program, and Capital Expenditures)
15. Compliance budget per registered entity
16. Compliance budget per registered function
17. Total Compliance FTEs
18. Registered entities per Compliance FTE
19. Registered functions per Compliance FTE

In addition, **Attachment 14** provides the following metrics and graphics based on the Regional Entities' 2022 Business Plans and Budgets:

20. Compliance Budget per Number of Registered Functions and per Number of Registered Entities
21. Number of Registered Functions per Registered Entity
22. Compliance Program Budget as a Function of Number of Registered Entities and Number of Registered Functions
23. Number of Registered Entities per Compliance Program FTE and Number of Registered Functions per Compliance Program FTE
24. Comparisons of Number of Registered Entities per Compliance program FTE and Number of Registered Functions per Compliance Program FTE for the current year (2021) and the budget year (2022)

Attachment 15 provides the following metrics on the budgeted Administrative Services costs of NERC and each Regional Entity, based on their budgets for 2021 and 2022:

1. Statutory Indirect (Administrative) Budget as a Percentage of Total Statutory Budget, for 2021 and 2022
2. Ratio of Statutory Direct Budget to Statutory Indirect Budget, for 2021 and 2022
3. Statutory Indirect FTEs as a Percentage of Total Statutory FTEs, for 2021 and 2022
4. Number of Direct Statutory FTEs per Indirect FTE, for 2021 and 2022

VIII. CONCLUSION

Based on the information in this filing, NERC requests that the Commission issue an order pursuant to 18 C.F.R. §39.4, by November 2, 2021: (1) accepting NERC's proposed 2022 Business Plan and Budget in **Attachment 2**; (2) accepting the proposed 2022 Business Plans and Budgets of the six Regional Entities for statutory activities in **Attachments 3 through 8** (including, (i) pursuant to §1107.4 of the NERC ROP, the application of Penalty collections proposed by MRO, NPCC, and SERC for assessment stabilization purposes, as described in §V.B.1, V.B.2 and V.B.4 above, as exceptions to NERC ROP §1107.2; and (ii) WECC's proposed creation and use of the Peak Reliability Donation Reserve described in §V.B.8 above); (3) accepting the proposed budget and funding requirement of WIRAB for 2022 in **Attachment 9**; and (4) approving the proposed assessments to each load-serving entity or designee or other entities to be billed within each Region, as set forth in Appendix 2 to **Attachment 2**, to be billed to and paid by each such LSE or designee or other entity to fund the portion of NERC's 2022 Funding requirement allocated to the United States and the 2022 Funding requirement for statutory activities of each Regional Entity and WIRAB allocated to the United States.

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DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 1

SUMMARY TABLES FOR NERC AND REGIONAL ENTITY

PROPOSED 2022 BUDGETS AND ASSESSMENTS

NERC Proposed Budget by Program

NERC Program	2021 Budget for Statutory Functions	2022 Budget for Statutory Functions
Reliability Standards and Power Risk Issue Strategic Management	\$ 7,856,641	\$ 9,430,925
Compliance Assurance and Organization Registration and Certification	13,686,302	12,563,971
Compliance Enforcement	7,327,875	6,945,963
Reliability Assessment and Performance Analysis	12,631,436	14,775,082
Situation Awareness	4,450,989	5,076,614
Event Analysis	4,287,213	3,782,150
E-ISAC (including CRISP)	29,821,738	32,600,947
Personnel Certification and Continuing Education	1,736,522	1,827,619
Training and Education	1,084,523	1,025,014
Total Budget	\$ 82,883,239	\$ 88,028,284

Proposed Budget for Statutory Activities of NERC, Each Regional Entity, and WIRAB

	2021 Budget for Statutory Functions	2022 Budget for Statutory Functions
NERC	\$ 82,883,239	\$ 88,028,284
MRO	18,412,202	20,034,361
NPCC	16,440,648	17,465,133
ReliabilityFirst	24,785,492	26,219,927
SERC	25,829,079	26,708,260
Texas RE	14,211,538	17,160,613
WECC	28,605,029	29,746,899
WIRAB	1,205,500	918,900
Total Budget	\$ 212,372,727	\$ 226,282,377

Proposed Assessments for Statutory Activities of NERC, Each Regional Entity, and WIRAB

	Assessments for Statutory Functions 2021	Allocation to U.S. 2021	Assessments for Statutory Functions 2022	Allocation to U.S. 2022	Allocation to U.S. 2022 Budget v 2021 Budget Over (Under)	% Over (Under)
NERC	\$ 72,011,373	\$ 64,957,145	\$ 78,387,280	\$ 70,691,258	\$ 5,734,113	8.83%
Regional Entities	\$ 116,760,116	\$ 105,340,184	\$ 121,994,971	\$ 110,019,127	\$ 4,678,943	4.44%
MRO	16,983,251	15,188,786	17,832,414	15,937,255		
NPCC	15,154,584	9,145,744	15,912,313	9,624,477		
ReliabilityFirst	22,764,995	22,764,995	23,447,945	23,447,945		
SERC	23,513,886	23,513,886	24,798,934	24,798,934		
Texas RE	13,343,400	13,343,400	15,003,365	15,003,365		
WECC	25,000,000	21,383,372	25,000,000	21,207,151		
WIRAB	\$ 986,300	\$ 826,979	\$ 698,700	\$ 586,773	\$ (240,206)	-29.05%
Total Budget	\$ 189,757,789	\$ 171,124,308	\$ 201,080,951	\$ 181,297,158	\$ 10,172,849	5.94%

DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 2

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

PROPOSED 2022 BUSINESS PLAN AND BUDGET

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

2022 Business Plan and Budget

Final

August 5, 2021

RELIABILITY | RESILIENCE | SECURITY



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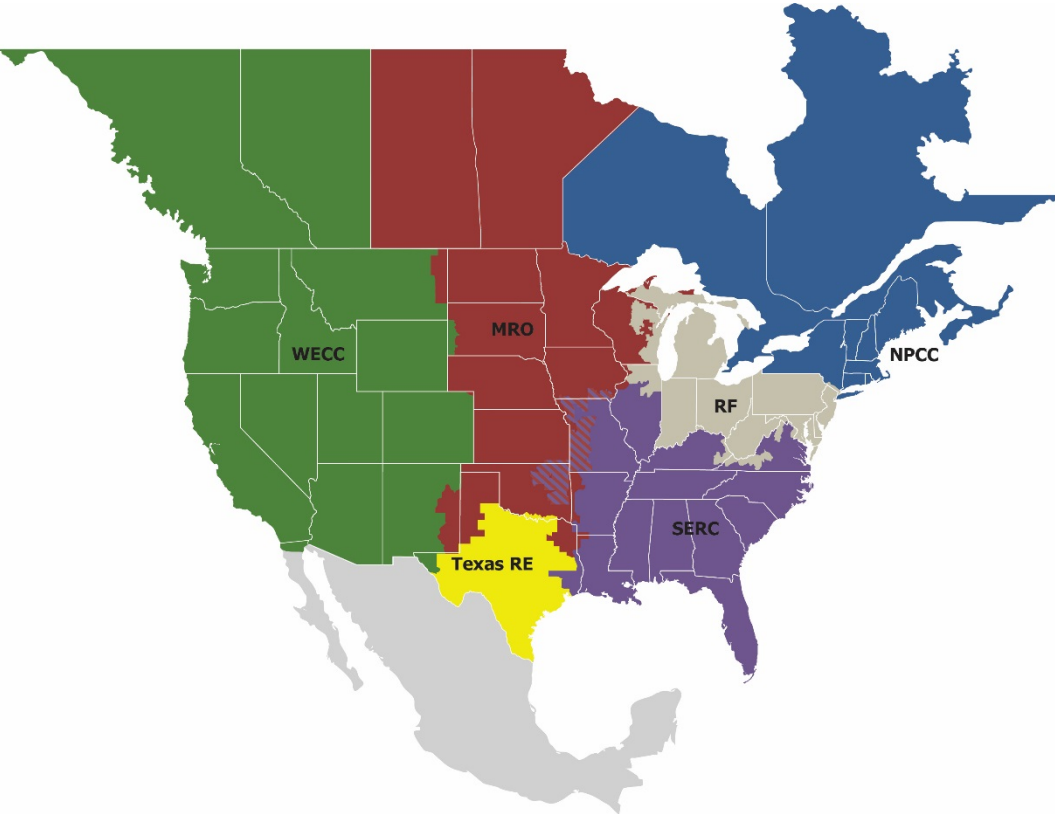
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Preface

Electricity is a key component of the fabric of modern society and the Electric Reliability Organization (ERO) Enterprise serves to strengthen that fabric. The vision for the ERO Enterprise, which is comprised of the North American Electric Reliability Corporation (NERC) and the six Regional Entities (REs), is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

Reliability | Resilience | Security
Because nearly 400 million citizens in North America are counting on us

The North American BPS is divided into six RE boundaries as shown in the map and corresponding table below. The multicolored area denotes overlap as some load-serving entities participate in one Region while associated Transmission Owners/Operators participate in another.



MRO	Midwest Reliability Organization
NPCC	Northeast Power Coordinating Council
RF	ReliabilityFirst
SERC	SERC Reliability Corporation
Texas RE	Texas Reliability Entity
WECC	Western Electricity Coordinating Council

About NERC

Overview

The North American Electric Reliability Corporation (NERC) is a not-for-profit entity organized under the New Jersey Nonprofit Corporation Act. NERC's area of responsibility spans the continental U.S. and portions of Canada and Mexico. Entities under NERC's jurisdiction are the users, owners, and operators of the bulk power system (BPS)¹—a system that serves the needs of nearly 400 million people.

Electric Reliability Organization

The Federal Energy Regulatory Commission (FERC) certified and has oversight of NERC as the Electric Reliability Organization (ERO) within the United States to establish and enforce NERC Reliability Standards for the U.S. portion of the BPS, pursuant to Section 215 of the Federal Power Act (FPA). As of June 18, 2007, FERC granted NERC the legal authority to enforce Reliability Standards with all U.S. users, owners, and operators of the BPS and made compliance with those standards mandatory and enforceable. Section 215 also requires that the organization certified by FERC as the ERO seek recognition with relevant authorities in Canada and Mexico. In 2005, the U.S. Department of Energy (DOE) and Canadian federal and provincial governments agreed to bilateral principles for a consistent, continent-wide reliability regulatory framework under a non-governmental institution (the ERO) designed to function on an international basis. To date, NERC has memoranda of understandings (MOUs) with eight Canadian provinces² and the Canada Energy Regulator in furtherance of this framework. Mexico is taking steps to implement such a framework pursuant to restructuring of Mexico's electricity industry and reforms of the country's regulatory framework enacted in 2013 and 2014. NERC works with the Mexican regulator, *Comisión Reguladora de Energía* (CRE), and the Mexican system and market operator, *CENACE*, under a MOU signed in 2017 to ensure consistency with the framework in Canada and the United States.

Membership and Governance

A 12-member Board of Trustees (Board), comprised of 11 independent trustees and NERC's president and chief executive officer serving as the management trustee, governs NERC. The Board has formed several committees to facilitate oversight of the organization in the areas of finance and audit, corporate governance and human resources, compliance, technology and security, nominations, and enterprise-wide risk.

Membership in NERC is open to any person or entity that has an interest in the reliability of the North American BPS. Membership is voluntary and affords participants the opportunity to engage in the governance of the organization, including through election to the Member Representatives Committee (MRC).³ More than 500 entities and individuals are members of NERC. NERC, its members, and each applicable BPS owner, operator, and user must comply with the NERC [Rules of Procedure](#) (ROP).

¹ Standards, compliance, and enforcement activities focus on the [Bulk Electric System \(BES\)](#), comprised of certain BPS facilities.

² British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia

³ The [MRC](#) comprises voting representatives elected from the 12 membership sectors. The MRC elects the independent trustees and, along with the Board, votes on amendments to the bylaws. The MRC also provides policy advice and recommendations to the Board on behalf of stakeholders with respect to annual budgets, business plans, and other matters pertinent to the purpose and operation of the organization.

Scope of Oversight

As the international, multijurisdictional ERO in North America, NERC:

- Proposes, supports the development of, monitors compliance with, and enforces mandatory Reliability Standards for the North American BES, subject to regulatory oversight and approvals from FERC in the United States and applicable authorities in Canada;
- Conducts near-term and long-term reliability assessments of the North American BPS;
- Certifies BPS operators as having the knowledge and skills to perform reliability responsibilities;
- Maintains situational awareness of events and conditions that may threaten BPS reliability;
- Coordinates efforts to improve physical and cyber security for the BPS of North America;
- Conducts detailed analyses and investigations of system disturbances and events as well as measures ongoing trends to determine root causes, uncover lessons learned, and issue findings as recommendations, guidelines, and actions to mitigate and control risks to reliability; and
- Identifies and prioritizes risks to reliability and uses a broad toolkit to mitigate and control risks to reliability, including the potential need for new or modified Reliability Standards, improved compliance monitoring and enforcement methods, or other initiatives.

Delegated Authorities

In executing its responsibility, NERC delegates certain authorities to the REs to perform aspects of the ERO functions described through delegation agreements. FERC has approved delegation agreements between NERC and the six REs. These agreements describe the authorities delegated and responsibilities assigned to the REs in the United States to address, among other things: (1) developing regional Reliability Standards; (2) monitoring compliance with and enforcement of Reliability Standards (both North American-wide and regional); (3) registering owners, operators, and users of the BES and certifying reliability entities (Reliability Coordinators [RCs], Balancing Authorities [BAs], and Transmission Operators [TOPs]); (4) assessing reliability and analyzing performance; (5) training and education; (6) event analysis and reliability improvement; and (7) situation awareness and infrastructure security. NERC expects REs whose territories and geographic footprints extend into Canadian provinces and Mexico to perform equivalent functions in those jurisdictions.

Statutory and Regulatory Background

NERC's authority as the ERO in the United States is based on FPA Section 215, as added by the Energy Policy Act of 2005,⁴ and FERC's regulations and orders pursuant to Section 215. In Canada, NERC's authorities are established by MOUs and regulations previously mentioned. In this Business Plan and Budget (BP&B), *Exhibit A – Application of NERC Section 215 Criteria* summarizes the major activities NERC proposes to undertake in 2022 and the approved FPA Section 215 criteria applicable to such activities.⁵

Funding

FPA Section 215 and FERC's regulations specify procedures for NERC's funding in the United States. NERC's annual BP&B is subject to FERC approval and, once approved, NERC's annual funding is provided primarily through assessments to load-serving entities. These assessments are allocated on a net-energy-for-load (NEL) basis. Equivalent funding mechanisms are provided in Canada, subject to the specific laws and regulations of each province. RE funding requirements are addressed separately in their respective BP&Bs, which must be reviewed and approved by NERC and FERC. The U.S. assessments for the REs are included in the overall NERC assessments to load-serving entities.

⁴ Section 215 of the FPA, 16 United States C. 824o.

⁵ North American Electric Reliability Corporation, Order on Compliance, 143 FERC ¶ 61,052 (2013).

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six REs, is a highly reliable and secure North American BPS. Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the REs. The ERO Enterprise strives for consistency where necessary, but recognizes that each RE addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness, and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding RE programs. The REs have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions are completed. Both NERC and the REs have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.

Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.



ERO Enterprise Strategic and Operational Planning

NERC and the REs are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the [ERO Enterprise Long-Term Strategy](#) as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified BPS risks. This strategy, which was approved by the Board on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial [ERO Reliability Risk Priorities Report](#);
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the REs identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each BP&B may reference how activities support each of the strategic focus areas.

Since risks to reliability and security are fluid and can be impacted by recent events, NERC and each RE may also create annual work plan priorities that summarize the most critical goals and objectives for the year. In many cases, these work plan priorities are also used for individual, departmental, and company performance measurement.⁶

⁶ The [2021 ERO Work Plan Priorities](#) were approved by the Board in November 2020. NERC management and the Board evaluate annual work plan priorities throughout the year.

Introduction and Executive Summary

TOTAL RESOURCES (in whole dollars)				
	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs	223.72			
Non-statutory FTEs	-			
Total FTEs	223.72			
Statutory Expenses	\$ 85,009,534			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 85,009,534			
Statutory Fixed Asset Additions	\$ 4,118,750			
Non-Statutory Fixed Asset Additions	\$ -			
Total Fixed Asset Additions	\$ 4,118,750			
Statutory Funding of Reserves	\$ 229,604			
Non-Statutory Funding of Reserves	\$ -			
Total Working Capital Requirement	\$ 229,604			
Net Financing Activity	\$ (1,100,000)			
Total Statutory Funding Requirement	\$ 88,257,888			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 88,257,888			
	TOTAL	US	CANADA	MEXICO
Statutory Funding Assessments	\$ 78,387,280	\$ 70,691,258	\$ 7,432,831	\$ 263,191
Non-Statutory Fees	\$ -	\$ -	\$ -	\$ -
NEL	4,469,657,994	3,944,336,587	510,636,231	14,685,176
NEL%	100.00%	88.25%	11.42%	0.33%

2022 Business Plan and Budget Summary

Budget Reporting Format and Presentation

The North American Electric Reliability Corporation (NERC) and the Regional Entities' (REs') budgets are comprised of both operating and fixed asset (capital) costs as well as net financing activity (if applicable). Operating costs generally include personnel, contractor support, consulting, meetings, travel, office space, software licensing, communications, and other customary services to support office operations. Fixed asset costs primarily reflect investments in equipment and software to support operations, including investments in the development of software applications and infrastructure to facilitate improved business processes and efficiency. These operating and fixed asset costs, as well as corresponding funding and financing activity, are shown on a Statement of Activities and Fixed Asset Expenditures report (SOA report) in this business plan and budget (BP&B) document, which is provided at both the total entity and departmental levels. These reports include funding, expenses, and financing activity for the current budget year and prior budget year to show year-over-year changes.

Overview of 2022 Budget and Funding Requirements

NERC's 2022 expense and fixed asset budget, including financing activity, is approximately \$88.0M, which is an increase of approximately \$5.1M (6.2%) from the 2021 budget. Total expenses are increasing approximately \$5.7M (7.2%) over 2021. The total fixed asset budget is approximately \$4.1M, an increase of \$1.4M (49.7%) from 2021, which includes the acquisition of \$2.1M in capital lease assets (primarily for the replacement of existing leased audio visual equipment), offset by corresponding lease proceeds reflected in financing activity. Future annual lease payments are anticipated to remain near current levels, with a minimal net impact on the annual budget. Approximately \$9.0M (10.2%) of NERC's 2022 budget is related to the Cybersecurity Risk Information Sharing Program (CRISP), with the majority of the CRISP budget funded by participating utilities, and a small portion funded through assessments.

NERC's proposed 2022 assessment is approximately \$78.4M, which is an increase of approximately \$6.4M (8.9%) from the 2021 assessment. Factors contributing to the difference between the proposed 2022 budget and assessment include assumptions regarding other funding sources, such as third-party funding for CRISP and fees collected to fund the System Operator Certification program. Additionally, the allocation of the assessment among U.S. and Canadian entities will reflect the final determination of credits for certain costs for Canadian entities pursuant to *NERC's Expanded Policy on Allocation of Certain Compliance and Enforcement Costs*, which was included in NERC's filing to the Federal Energy Regulatory Commission (FERC) requesting acceptance of the NERC 2009 BP&B.⁷

NERC Rules of Procedure (ROP) Section 1107.2 specifies that penalties received from July 1 through the following June 30 will offset U.S. assessments in the subsequent budget period. In 2015, the Board of Trustees (Board) and FERC approved the creation of the Assessment Stabilization Reserve (ASR), which was established to narrow the gap between annual budget and assessment percentage changes that result from year-to-year variations in penalty collections. This reserve may be funded with penalty funds and surplus operating reserves. The actual amount of the contribution, as well as releases from the fund to reduce assessments, are determined as part of NERC's BP&B process. The 2021 assessment did not reflect a release of funds from the ASR due to cost savings efforts to maintain a relatively flat budget, as well as the use of Operating Contingency Reserves (OCR) to fund final year costs associated with the development of the Compliance Monitoring and Enforcement Program (CMEP) Align tool. NERC did not collect any penalties during the 12 months ended June 30, 2021, and is not proposing to deposit any funds into the ASR. Further, NERC management is not recommending a release of funds from the ASR to offset 2022 assessments in order to preserve these funds to stabilize assessments in future years.

⁷ North American Electric Reliability Corp., Docket No. RR08-6-000, Attachment 16, (filed August 22, 2008)

Key 2022 Budget Considerations

NERC was able to hold the 2021 budget and assessment artificially flat to provide relief to industry during the uncertainty of the pandemic. This was accomplished by (1) not adding any full-time equivalents (FTEs); (2) reducing meetings and travel expenses (assuming continued pandemic conditions); (3) narrowing the scope of or deferring, but not eliminating, consulting, contract, and professional services resources and certain system enhancements; and (4) using OCR to fund the final year development costs for Align of \$1.8M. Additionally, cost savings efforts in 2020 allowed NERC to increase its OCR and cash fund Align development costs originally budgeted to be financed and cash fund a portion (\$1.8M) of the initial \$3.8M investment for the CMEP ERO Secure Evidence Locker (SEL) tool in 2020, which reduced future year debt service requirements.

From supply chain compromises to several cyber breaches and cold and record heat weather-related events, there has been an alarming increase in reliability and security risks to the bulk power system (BPS). While NERC remains sensitive to the economic uncertainties facing the industry as we navigate and eventually emerge from the COVID-19 pandemic, there is the need to thoughtfully balance current fiscal concerns with the extraordinary costs to nearly 400 million North American citizens if adequate and preventive measures are not taken in response to these risks. In support of the ERO Enterprise's mission to assure the effective and efficient reduction of risks to the reliability and security of the grid, NERC's 2022 BP&B reflects immediate needs to continue to reliably and securely support the BPS as well as a measured return to items deferred in 2021.

Priority Risks to Reliability and Security

The 2022 budget ensures NERC has adequate resources to focus on priority risks, including BPS and cyber security, increased distributed generation, fuel and energy assurance, and weatherization. This includes personnel and contract support in the Reliability Standards, Reliability Assessment and Performance Analysis (RAPA), Electricity Information Sharing and Analysis Center (E-ISAC), and CRISP areas, as well as data management tool enhancements. The budget also ensures NERC is properly resourced with respect to its own internal cyber security and system administration needs.

Support for Certain Audits

The 2022 budget reflects necessary support to complete FERC-mandated CMEP audits of the REs, as well as audits related to ERO Enterprise IT security and post-implementation of Align.

Meetings and Travel

After a decrease of \$1.1M in this expense category for the 2021 budget due to the assumption of continued pandemic conditions, NERC is planning for a partial return to in-person meetings and related travel in 2022. This includes certain in-person meetings for larger-scale groups, including but not limited to the Board, Member Representatives Committee (MRC), Reliability and Security Technical Committee (RSTC), and ERO Enterprise leadership. Smaller stakeholder and ERO Enterprise meetings will primarily continue to realize the efficiencies of virtual meeting formats.

Office Leases

The successful demonstration of remote work capabilities during the pandemic and upcoming office lease expirations or early termination options provide NERC an opportunity to transition to a shared in-office workplace model with the goal of retaining the efficiencies of a more flexible remote work policy and reducing annual lease costs without impacting the effectiveness of operations, including stakeholder collaboration. In collaboration with NERC team members and the MRC, NERC has been working on long-term lease strategies for its two office locations. The 2022 budget reflects savings over 2021 based on new lease assumptions for the Washington, D.C. office while assuming the existing rent schedule for the Atlanta office as options continue to be explored for that facility.

Strategic Workforce Management

NERC is a knowledge-based organization. As the challenges to the reliability and security of the BPS evolve at the same time as the competition for talent increases, NERC's need to improve its ability to retain, engage, and attract top talent is critical. Moving to a more remote workforce, reducing the office footprint, and managing employee wellbeing through the pandemic accelerated the urgency to shift from a tactically focused people management model to a more sustainable people-centered organization. NERC is implementing a "People Strategy" designed to create an employee experience that meets the needs of an evolving workforce. This three-year plan brings core Human Resources (HR) functions in-house and leverages external support for specific expertise. New FTEs included in the 2022 budget in support of this plan are being offset by the repurposing of open positions within the company.

The return of investments related to 2021 deferrals as well as the need for adequate resources to meet work plan priorities and important strategic objectives are contributing to an increased demand on the NERC 2022 budget. In support of the proposed 2022 budget, assessment, and FTEs, NERC notes the following key historical information and considerations:

- Average annual total budgeted FTE growth since 2013, including proposed 2022 FTEs, is 2.1%.
- The total number of staff, excluding E-ISAC and CRISP, IT, and RAPA, is less in 2022 than in 2013.
- Total budget, assessment, and FTEs are lower than pre-pandemic projections for 2022 in the 2020 BP&B. Notably, these numbers are lower while including approximately \$1.4M in annual costs for the ERO SEL that were not part of the 2022 projection in the 2020 BP&B.⁸
- NERC's two-year (2021 and 2022) average budget and assessment increases are 3.2% and 4.5%, respectively.

Key 2022 Budget Assumptions

Personnel

Personnel costs are increasing \$3.8M (7.8%) from 2021. This includes a total of 223.7 FTEs, which incorporates a 6.0% reduction (vacancy rate) for attrition and hiring delays, which is the same rate applied in previous years. NERC is proposing to add 14 new positions, offset by a reallocation of 3 open positions, resulting in a net increase to headcount of 11 (10.3 FTEs). These positions support the following focus areas and strategies (FTEs by department are discussed later in this section):

- Reliability Standards – 2 positions
 - Critical Infrastructure Protection (CIP) standards revision considerations necessitated by the escalating threat environment and recent supply chain compromises
 - RSTC-identified changes to operations and planning standards
 - Increased activity related to the overall rapid transformation of the grid, especially in the areas of renewable resources and extreme events
- Analytics – 2 positions
 - BPS security, including cyber awareness and supply chain compromise, and incorporation of cyber security into system models
 - Risks related to transformation of the grid, including energy and fuel assurance and weatherization

⁸ Annual costs include debt service, software licenses and maintenance, certification, and an incremental FTE.

- E-ISAC and CRISP – 5 positions
 - Strengthening analytical capabilities and leveraging of threat intelligence
 - Key support areas for industry priorities, such as operational technology (OT), Department of Energy (DOE) 100-Day Plan, and natural gas partnerships
 - Overall organization and succession planning to support execution of the long-term strategy and related initiatives
- Internal cyber security and system administration – 2 positions
 - Managing cyber threats increasing in sophistication and frequency
 - Supporting ERO Enterprise applications and infrastructure
- Strategic workforce management (People Strategy) – 3 positions
 - Retaining, engaging, and attracting top talent
 - Shifting to a more remote workforce and managing employee wellbeing
 - Bringing core functions in-house to create a more sustainable organization

The 2022 personnel budget reflects market-based compensation for personnel and medical and dental benefit plan costs. This includes (1) a 2.5% increase over actual 2021 base salaries for merit adjustments and up to 0.5% for equity and market adjustments,⁹ which is the same assumption as in the 2021 budget, and (2) anticipated increases for medical and dental benefit plan costs, which are lower than previous year estimates due to an improved loss ratio trend. Executive and staff compensation and benefits are established based on guidelines established by the Board’s Corporate Governance and Human Resources Committee (CGHRC) and the results of market compensation and benefit studies, most recently completed in late 2019. Medical and dental premium cost estimates are based on market data provided by the company’s benefits consultant. No other changes to retirement or other benefit plans have been assumed for 2022. A breakdown of Personnel expenses is provided in Table B4 – Personnel.

Meetings and Travel

Meetings and travel expenses are increasing \$406k (18.5%) from 2021. NERC is planning for a partial return to in-person meetings and related travel in 2022, particularly for the Board, MRC, RSTC, and ERO Enterprise leadership, while continuing to leverage efficiencies of virtual meeting formats for smaller groups. The 2022 budget for meetings and travel expenses is 22% lower than the pre-pandemic 2020 budget for these expenses. A breakdown of Meeting and Travel expenses is provided in Table B5 – Meetings & Travel.

Consulting, Contractors, and Professional Services

Consultants and contracts costs are increasing \$983k (7.7%) and Professional Services expenses are increasing \$303k (13.9%) from 2021. As mentioned above, in 2021 NERC narrowed the scope of or deferred these resources during the economic uncertainties of the pandemic. This included consulting and contract work in the RAPA area, as well as reduced consulting, contractor, and professional services support for Administrative Programs. The 2022 budget reflects a measured return to this work, as well as funding for current needs, including support for Internal Audit and the People Strategy discussed above. An overview of budgeted expenses for professional services and consultants and contracts are shown on Table B-9 – Professional Services and in *Exhibit B – Consultants and Contracts Costs*, respectively.

⁹ This is a placeholder amount; actual increases will be evaluated by the Board at year-end.

Office Costs

Office costs are increasing \$563k (5.5%) from 2021. The majority of this increase is for software licenses and support for CRISP OT and analytics (much of which is participant-funded) and annual escalation cost estimates for software used by the program areas and IT, with an increased focus on enhancing NERC's cybersecurity posture. Office Costs by category are shown on Table B8 – Office Costs.

Office Rent

As discussed above, NERC has been evaluating lease options for both its Atlanta and Washington, D.C. offices. The 2022 budget reflects savings over 2021 based on new lease assumptions for the Washington, D.C. office while assuming the existing rent schedule for the Atlanta office as options continue to be explored for that facility. See Table B-7 – Rent for current assumptions.

Fixed Asset (Capital) Budget and Capital Financing

NERC's fixed asset budget includes IT equipment and servers, including leased equipment (capital lease assets), and capital software. The 2022 fixed asset budget is approximately \$4.1M, an increase of \$1.4M (49.7%) from 2021. This includes \$2.0M for a new audio visual equipment lease and \$100k for laptop leases, which are offset by corresponding lease proceeds reflected in financing activity. Excluding these capital lease assets, NERC's fixed asset budget is \$2.0M, which represents a decrease of \$823k (23.9%) from 2021. This decrease is primarily due to the planned completion of development for Align in 2021, for which \$1.8M was budgeted.¹⁰ This decrease is offset by funding for ongoing enhancements and maintenance for Align and the ERO SEL, and a return to investment in NERC's suite of data management tools after the 2021 deferrals discussed above, which include (1) data management systems supporting the technical analysis areas, such as generating availability data (including solar and wind), transmission availability data, and data to inform reliability assessments and event analysis; and (2) situation awareness tools. These systems are discussed within the applicable program areas of Section A. A breakdown by fixed asset category is provided in Table B-12 – Fixed Assets.

NERC's capital financing program was established to fund certain ERO Enterprise software projects to help spread these investment costs over multiple years and reduce the volatility of annual assessments. The 2022 budget currently assumes no loan borrowing through the capital financing program, and \$375k of loan principal payments and \$55k of interest payments for the borrowing for the ERO SEL. Further information regarding capital financing can be found in *Exhibit C – Capital Financing*. As noted above, the 2022 budget also assumes \$2.1M for financing lease proceeds for audio visual equipment and laptops, as well as approximately \$625k of financing lease payments. These loan and financing lease borrowings and payments can be seen in the financing activity section of the applicable SOA reports in this document.

Program Budget and FTE Comparisons

The following table shows a 2022 versus 2021 total budget comparison by program area. The amounts reflect all direct and indirect departmental costs, including fixed asset expenditures. Costs incurred for Administrative Programs (overhead) are considered indirect and are allocated to the statutory departments based on the ratio of that department's budgeted FTEs to total budgeted statutory FTEs. The Administrative Programs encompass a number of necessary support functions, including IT, Legal, Internal Audit, Corporate Risk Management (CRM), Finance and Accounting, and HR. It also includes General and Administrative (G&A) functions, which include the Chief Executive Officer (CEO), the Chief Engineer, the Chief Administrative Officer (CAO), and their support staff, as well as External Affairs staff.

¹⁰ The \$1.8M was part of the 2021 budget but funded fully by OCR and therefore did not affect 2021 assessments.

2022 versus 2021 Total Budget by Program

Total Budget	2021 Budget	2022 Budget	Increase (Decrease)	
Reliability Standards	\$ 7,856,641	\$ 9,430,925	\$ 1,574,284	20.0%
CMEP	21,014,178	19,509,934	(1,504,243)	-7.2%
RAPA	12,631,436	14,775,082	2,143,646	17.0%
Event Analysis	4,287,213	3,782,150	(505,063)	-11.8%
Situation Awareness	4,450,989	5,076,614	625,625	14.1%
Personnel Certification	1,736,522	1,827,619	91,097	5.2%
Training and Education	1,084,523	1,025,014	(59,510)	-5.5%
NERC Budget, excluding E-ISAC	\$ 53,061,501	\$ 55,427,337	\$ 2,365,837	4.5%
E-ISAC (non-CRISP)	\$ 21,625,531	\$ 23,637,696	\$ 2,012,165	9.3%
E-ISAC (CRISP)	8,196,207	8,963,250	767,044	9.4%
Total E-ISAC Budget	\$ 29,821,738	\$ 32,600,947	\$ 2,779,209	9.3%
Total Budget	\$ 82,883,239	\$ 88,028,284	\$ 5,145,045	6.2%

The primary areas of increase are in Reliability Standards, RAPA, Situation Awareness, E-ISAC, and CRISP. These increases are mainly due to the addition of incremental or reallocated FTEs (see the FTEs by department section below) which also results in higher allocations of indirect costs and fixed assets from the Administrative Programs. The increase in RAPA is also due to the resumption of reliability and technical analysis consulting work and data management system enhancements, and the increases in Situation Awareness and CRISP are also related to additional software costs, all of which are discussed above.

The primary areas of decrease are in Event Analysis and the CMEP, which includes the Compliance Assurance, Compliance Enforcement, and Organization Certification and Registration departments. These decreases are predominately due to a reallocation of FTEs to other program areas, which also results in lower allocations of indirect costs and fixed assets from the Administrative Programs.

The following table presents a 2022 versus 2021 comparison of budgeted FTEs by department, reflecting 2022 additions, reallocations, and attrition assumptions. The number of FTEs represents the number of employees employed full time during the year, plus the number of employees employed part time or during a portion of the year, converted to a full-time basis. See Appendix 1 for a 2022 organization chart.

2022 versus 2021 FTEs by Department

FTEs*	2021 Budget	2022 Budget	Increase (Decrease)
Reliability Standards	16.92	19.74	2.82
CMEP	35.72	33.84	(1.88)
RAPA	25.38	26.32	0.94
Event Analysis	7.52	6.58	(0.94)
Situation Awareness	6.58	7.52	0.94
Personnel Certification	2.82	2.82	-
Training and Education	1.88	1.88	-
Administrative Programs	77.08	81.08	4.00
NERC FTEs, excluding E-ISAC	173.90	179.78	5.88
E-ISAC (non-CRISP)	36.66	40.01	3.35
E-ISAC (CRISP)	2.82	3.94	1.12
Total E-ISAC FTEs	39.48	43.95	4.47
Total FTEs	213.38	223.72	10.34

**Reflects 2022 additions and transfers between departments, anticipated timing of 2022 hires, and assumes 6% attrition in all programs*

To support key focus areas and strategies, in 2022 NERC is adding 14 new positions (see related discussion on pages 9 and 10) offset by a repurposing of 3 open positions, resulting in a net headcount increase of 11 (10.3 FTEs). The table above reflects these positions as well as other reallocations as follows:

- Reliability Standards – The increase of 2.82 FTEs reflects the addition of one reallocated open position from RAPA and the addition of two positions for increased Reliability Standards activity.
- CMEP – Reflecting continued program maturation, the decrease of 1.88 FTEs is due to the reallocation of two open positions to Administrative Programs in support of the People Strategy.
- RAPA – The increase of 0.94 FTEs reflects the addition of two positions for reliability and security analytics and modeling, offset by a reallocation of one open position to Reliability Standards.
- Event Analysis and Situation Awareness – The decrease of one FTE from Event Analysis and the corresponding increase in Situation Awareness is related to a repurposing of a position that was previously budgeted in the Event Analysis department for organizational structure purposes; the core resources for and investments in the Event Analysis program remain the same as 2021.
- E-ISAC and CRISP – The increase of 4.47 FTEs reflects the addition of four positions in E-ISAC for analytics and overall strategy execution, and one in CRISP for OT program support. This is offset by the reallocation of one open position from E-ISAC to Administrative Programs in support of the People Strategy. The net FTE number also reflects a partial direct allocation of a project manager in IT in lieu of a contract resource.
- Administrative Programs – The increase of 4.00 FTEs reflects the addition of five positions. This includes two in IT for cybersecurity and system administration, offset by the partial direct allocation of a project manager to E-ISAC and CRISP, as well as two additional positions in HR and one in External Affairs in support of the People Strategy. The new FTE resources in support of the People Strategy are being offset by the repurposing of open positions within the company.

Reserves

NERC is proposing an overall reserve budget of \$11.5M across all categories of reserves. This represents an increase of \$636k (5.9%) from the total reserve amounts included in NERC’s 2021 budget. The reserve categories are as follows:

- **Future Obligation Reserve** – Includes funding that has been received to satisfy future obligations under lease, credit, loan, or other agreements to which the company is a party. This reserve is budgeted to be \$1.1M at December 31, 2022.
- **System Operator Certification Reserve** – Includes surplus funding from operator certification fees that are above incurred expenses and shall be used solely to support operator certification needs. The 2022 System Operator Certification Reserve is budgeted at \$710k at December 31, 2022, and is comprised primarily of existing funds.
- **CRISP Reserve** – Represents funds dedicated to support CRISP. These reserves are established pursuant to a CRISP budget agreed to and funded entirely by utilities participating in CRISP. These reserves have no impact on assessments and are segregated from other reserves pursuant to the terms of the CRISP agreements. The CRISP reserves are projected to be \$800k in the 2022 budget.
- **OCR** – Includes both general working capital funds¹¹ resulting from day-to-day operations and additional funds for contingencies that were not anticipated. NERC’s current policy on OCR requires a reserve target of 3.5–7.0% of the company’s total expense and fixed asset budget (less CRISP and System Operator Certification budgets), except as otherwise approved by the Board after review and recommendation by the Board’s Finance and Audit Committee (FAC). This percentage is calculated against NERC’s total budget for operating and capital expenditures, less those costs related to CRISP and System Operator Certification, each of which has a separate reserve category. NERC is projecting an OCR of approximately \$6.3M at December 31, 2022, which is 8.1% of budgeted operating and fixed asset costs, and is slightly higher than the target maximum range of the current policy. NERC believes that maintaining a slightly higher OCR than policy target range is prudent to maintain adequate reserve levels to accommodate potential one-time costs associated with any Atlanta office lease change decisions. The current policy target range will be evaluated further with the FAC and Board in 2021.
- **ASR** – To date, this reserve has been funded entirely by previously received penalties and is projected to have a balance of \$2.5M as of December 31, 2022. NERC did not collect any penalties during the 12 months ended June 30, 2021, and is not proposing to deposit any funds into the ASR. Further, NERC management is not recommending a release of funds from the ASR to offset 2022 assessments, in order to preserve these funds to stabilize assessments in future years.

The following table is a statement of activities and fixed asset expenditures comparing the 2021 budget, 2021 projection, and 2022 budget.

¹¹ NERC maintains a \$4,000,000 line of credit with a major financial institution. Based on cash flow projections and the timing by which assessments are billed and paid, NERC does not project a need to access working capital in 2022 for monthly cash flow needs. The “Working Capital Requirement” shown in the table on page 1 reflects the projected net change for both the System Operator and CRISP reserves.” See Table B-1 for details.

Introduction and Executive Summary

Statement of Activities and Fixed Asset Additions						
2021 Budget & Projection, and 2022 Budget						
STATUTORY						
	2021	2021	Variance		Variance	% Inc
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	2022 Budget	2022 Budget v 2021 Budget Over(Under)	2022 Over 2021
Funding						
NERC Funding						
NERC Assessments	\$ 72,011,373	\$ 72,011,374	\$ -	\$ 78,387,280	\$ 6,375,906	
Penalties Released*	-	-	-	-	-	
Total NERC Funding	\$ 72,011,373	\$ 72,011,374	\$ -	\$ 78,387,280	\$ 6,375,906	8.9%
Third-Party Funding (CRISP)	\$ 7,064,343	\$ 7,095,260	\$ 30,917	\$ 7,917,385	\$ 853,042	
Testing, Renewal, & Continuing Ed Fees	1,801,634	1,654,822	(146,812)	1,756,723	(44,911)	
Services & Software	60,000	60,000	-	60,000	-	
Miscellaneous	-	60,500	60,500	60,000	60,000	
Interest & Investment Income	218,200	7,000	(211,200)	76,500	(141,700)	
Total Funding (A)	\$ 81,155,551	\$ 80,888,956	\$ (266,594)	\$ 88,257,888	\$ 7,102,337	8.8%
Expenses						
Personnel Expenses						
Salaries	\$ 36,636,628	\$ 37,229,211	\$ 592,583	\$ 39,557,528	\$ 2,920,900	
Payroll Taxes	2,122,568	2,176,206	53,638	2,310,836	188,267	
Benefits	5,703,799	5,360,249	(343,550)	6,038,487	334,688	
Retirement Costs	3,726,439	3,769,288	42,849	4,059,585	333,146	
Total Personnel Expenses	\$ 48,189,435	\$ 48,534,954	\$ 345,519	\$ 51,966,435	\$ 3,777,000	7.8%
Meeting & Travel Expenses						
Meetings & Conference Calls	\$ 890,751	\$ 379,978	\$ (510,773)	\$ 1,132,550	\$ 241,799	
Travel	1,310,997	381,990	(929,007)	1,475,500	164,503	
Total Meeting & Travel Expenses	\$ 2,201,748	\$ 761,968	\$ (1,439,780)	\$ 2,608,050	\$ 406,302	18.5%
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 12,691,813	\$ 14,639,818	\$ 1,948,005	\$ 13,674,800	\$ 982,987	
Office Rent	3,603,442	3,603,442	-	3,243,277	(360,165)	
Office Costs	10,185,789	10,483,815	298,026	10,749,222	563,433	
Professional Services	2,185,100	2,398,563	213,463	2,488,100	303,000	
Miscellaneous	100,150	105,086	4,936	144,650	44,500	
Total Operating Expenses, excluding Depreciation	\$ 28,766,294	\$ 31,230,724	\$ 2,464,430	\$ 30,300,049	\$ 1,533,755	5.3%
Total Direct Expenses	\$ 79,157,477	\$ 80,527,646	\$ 1,370,169	\$ 84,874,534	\$ 5,717,057	7.2%
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Other Non-Operating Expenses	\$ 129,661	\$ 181,048	\$ 51,387	\$ 135,000	\$ 5,339	4.1%
Total Expenses (B)	\$ 79,287,138	\$ 80,708,694	\$ 1,421,557	\$ 85,009,534	\$ 5,722,396	7.2%
Change in Net Assets (=A-B)	\$ 1,868,413	\$ 180,262	\$ (1,688,151)	\$ 3,248,354	\$ 1,379,941	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 2,751,500	\$ 3,286,328	\$ 534,828	\$ 4,118,750	\$ 1,367,250	49.7%
Financing Activity						
Loan or Financing Lease - Borrowing (-)	(100,000)	(887,476)	(787,476)	(2,100,000)	(2,000,000)	
Loan or Financing Lease - Principal Payments (+)	944,601	803,957	(140,644)	1,000,000	55,399	
Net Financing Activity (D)	\$ 844,601	\$ (83,519)	\$ (928,120)	\$ (1,100,000)	\$ (1,944,601)	-230.2%
Total Budget (=B+C+D)	\$ 82,883,239	\$ 83,911,503	\$ 1,028,265	\$ 88,028,284	\$ 5,145,045	6.2%
Change in Working Capital (=A-B-C-D)	\$ (1,727,688)	\$ (3,022,547)	\$ (1,294,859)	\$ 229,604	\$ 1,957,292	
FTEs	213.38	208.95	(4.43)	223.72	10.34	4.8%

*Penalties Released in the current year reflects the designated amount of funds released from the Assessment Stabilization Reserve to offset U.S. assessments as approved by the NERC Board and FERC. Actual penalties invoiced in the current reporting year are shown as an increase to the Assessment Stabilization Reserve on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

Projections for 2023 and 2024

NERC is currently developing preliminary operating and fixed asset projections for 2023 and 2024. Significant assumptions considered in preparing these projections include:

- Salary and benefit increases consistent with historical precedent (prospective inflation pressures not reflected);
- Gradual increase in meetings and travel expenses that are still below pre-pandemic levels;
- Continued Washington, D.C. office lease savings while assuming the existing rent schedule for the Atlanta office as options continue to be explored for that facility;
- Debt service repayment obligations in connection with the company's Capital Financing Program, including financing for the ERO SEL; and
- Continued resource additions and enhancements to data management systems as a result of 2020 and 2021 deferrals and to adequately address priority BPS reliability and security risks.

While NERC was able to reduce certain human resource and technology investments in the 2020 and 2021 periods, this was a deferral of short-term cost impacts and not an elimination of these strategies. Since the bulk of NERC's budget consists of people and technology, continued investments in human resources and software tools are necessary to support of NERC's strategic goals and mission. NERC's preliminary 2023 budget projection is \$92.5M (5.1% increase over 2022) and its assessment projection is \$82.7M (5.5% increase over 2022). In 2024, the budget projection is \$97.2M (5.1% increase over 2023) and the assessment projection is \$86.9M (5.1% increase over 2023). As with all future year projections, these numbers only reflect calculations based on management's preliminary planning (i.e., the projections are not Board-endorsed or approved) and the assessment projections do not consider the use of reserve funds to help mitigate assessment increases, a decision that would be made during the 2023 and 2024 BP&B processes. Resource needs are also under continuous strategic review, and technology projects are subject to scoping, requirements building, and business case development as applicable.

As mentioned earlier, NERC continues to be sensitive to the economic uncertainties facing the electricity sector resulting from the COVID-19 pandemic. NERC commits to thoughtfully balancing fiscal concerns with the evolution of BPS risk into different arenas, judicious use of reserves to manage assessment increases, ongoing assessment of the effectiveness and efficiency of its program areas, and ensuring that its budgets for 2023 and 2024 reflect activities that focus on the highest risks to reliability and security.

Introduction and Executive Summary

Statement of Activities and Fixed Asset Additions 2021 Budget & Projected 2022 and 2023 Budgets

	2022 Budget	2023 Projection	\$ Change 23 vs 22	% Change 23 vs 22	2024 Projection	\$ Change 24 vs 23	% Change 24 vs 23
Funding							
ERO Funding							
NERC Assessments	\$ 78,387,280	\$ 82,676,270	\$ 4,288,990	5.5%	\$ 86,910,239	\$ 4,233,969	5.1%
Penalties Released	-	-	-	-	-	-	-
Total NERC Funding	\$ 78,387,280	\$ 82,676,270	\$ 4,288,990	5.5%	\$ 86,910,239	\$ 4,233,969	5.1%
Third-Party Funding							
Testing Fees	\$ 7,917,385	\$ 7,979,206	\$ 61,821	0.8%	\$ 8,381,748	\$ 402,542	5.0%
Services & Software	1,756,723	1,671,250	(85,473)	-4.9%	1,783,325	112,075	6.7%
Miscellaneous	60,000	60,000	-	0.0%	60,000	-	0.0%
Interest & Investment Income	60,000	60,000	-	0.0%	60,000	-	0.0%
	76,500	111,500	35,000	45.8%	111,500	-	0.0%
Total Funding (A)	\$ 88,257,888	\$ 92,558,226	\$ 4,300,338	4.9%	\$ 97,306,812	\$ 4,748,587	5.1%
Expenses							
Personnel Expenses							
Salaries	\$ 39,557,528	\$ 42,150,150	\$ 2,592,622	6.6%	\$ 44,668,504	\$ 2,518,354	6.0%
Payroll Taxes	2,310,836	2,428,007	117,171	5.1%	2,535,613	107,606	4.4%
Benefits	6,038,487	6,616,473	577,986	9.6%	7,157,732	541,259	8.2%
Retirement Costs	4,059,585	4,330,250	270,665	6.7%	4,592,939	262,689	6.1%
Total Personnel Expenses	\$ 51,966,435	\$ 55,524,880	\$ 3,558,445	6.8%	\$ 58,954,788	\$ 3,429,908	6.2%
Meetings & Travel Expenses							
Meetings & Conference Calls	\$ 1,132,550	\$ 1,155,550	\$ 23,000	2.0%	\$ 1,170,000	\$ 14,450	1.3%
Travel	1,475,500	1,631,500	156,000	10.6%	1,730,500	99,000	6.1%
Total Meetings and Travel Expenses	\$ 2,608,050	\$ 2,787,050	\$ 179,000	6.9%	\$ 2,900,500	\$ 113,450	4.1%
Operating Expenses, excluding Depreciation							
Consultants & Contracts	\$ 13,674,800	\$ 13,396,803	\$ (277,997)	-2.0%	\$ 13,798,229	\$ 401,426	3.0%
Office Rent	3,243,277	3,331,170	87,893	2.7%	3,497,840	166,670	5.0%
Office Costs	10,749,222	11,135,179	385,957	3.6%	11,571,569	436,390	3.9%
Professional Services	2,488,100	2,580,100	92,000	3.7%	2,762,100	182,000	7.1%
Miscellaneous	144,650	144,850	200	0.1%	144,750	(100)	-0.1%
Total Operating Expenses, excluding Depreciation	\$ 30,300,049	\$ 30,588,102	\$ 288,053	1.0%	\$ 31,774,488	\$ 1,186,386	3.9%
Total Direct Expenses	\$ 84,874,534	\$ 88,900,032	\$ 4,025,498	4.7%	\$ 93,629,776	\$ 4,729,744	5.3%
Indirect Expenses	\$ -	\$ -	\$ -	0.0%	\$ -	\$ -	0.0%
Other Non-Operating Expenses	\$ 135,000	\$ 135,000	\$ -	0.0%	\$ 135,000	\$ -	0.0%
Total Expenses (B)	\$ 85,009,534	\$ 89,035,032	\$ 4,025,498	4.7%	\$ 93,764,776	\$ 4,729,744	5.3%
Change in Net Assets (=A-B)	\$ 3,248,354	\$ 3,523,194	\$ 274,840	8.5%	\$ 3,542,037	\$ 18,843	0.5%
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 4,118,750	\$ 2,569,000	\$ (1,549,750)	-37.6%	\$ 2,559,000	\$ (10,000)	-0.4%
Financing Activity							
Loan or Financing Lease - Borrowing (-)	(2,100,000)	(100,000)	2,000,000	-95.2%	(100,000)	-	0.0%
Loan or Financing Lease - Principal Payments (+)	1,000,000	1,000,000	-	0.0%	1,000,000	-	0.0%
Net Financing Activity (D)	\$ (1,100,000)	\$ 900,000	\$ 2,000,000	-181.8%	\$ 900,000	\$ -	0.0%
Total Budget (=B+C+D)	\$ 88,028,284	\$ 92,504,032	\$ 4,475,748	5.1%	\$ 97,223,776	\$ 4,719,744	5.1%
Change in Working Capital (=A-B-C-D)	\$ 229,604	\$ 54,194	\$ (175,410)	-76.4%	\$ 83,037	\$ 28,843	53.2%
FTEs	223.72	233.12	9.40	4.2%	241.58	8.46	3.6%

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Reliability Standards and Power Risk Issue Strategic Management

NERC has an Engineering and Standards department that consolidates NERC’s technical resources together and provides engineering services to support the overall needs of the organization. The Reliability Standards group is focused specifically on the development and improvement of Reliability Standards. The Power Risk Issues and Strategic Management (PRISM) group supports Reliability Standards by providing technical support and develops, supports, and prioritizes the ERO Risk Registry.

Reliability Standards and Power Risk Issue Strategic Management (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	16.92	19.74	2.82
Personnel Expenses	3,312,011	3,926,928	614,917
Direct Expenses	\$ 3,627,620	\$ 4,321,038	\$ 693,418
Indirect Expenses	4,087,161	4,916,148	828,986
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	82,885	397,858	314,973
Financing Activity	58,974	(204,119)	(263,093)
Total Budget	\$ 7,856,641	\$ 9,430,925	\$ 1,574,284

Background and Scope

The Reliability Standards program carries out the ERO’s statutory responsibility to develop, adopt, obtain approval of, and modify (as and when appropriate) mandatory NERC Reliability Standards (both continent-wide standards and regional reliability standards) to assure the Bulk Electric System (BES) is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of the bulk power system (BPS). The purpose of the Reliability Standards group is to deliver high-quality risk-based Reliability Standards, facilitate continent-wide industry engagement, and support regulatory filings. The group focuses on expanding a risk-based approach to its projects, including ensuring that Reliability Standards are clear, timely, consider costs, effective in mitigating material risks, and do not unnecessarily burden industry with administrative requirements and/or detract from reliability or security.

The overarching purpose of the PRISM group is to leverage in-house expertise on Reliability Standards and standards development to implement cross-cutting efforts among NERC functions and NERC standing and technical committees. Particular emphasis is placed on developing NERC’s positions on emerging technologies and the over-arching effect of these technologies on Reliability Standards. Further, this group develops, supports, and prioritizes the ERO Risk Registry, and gauges the responses to address reliability risks and works toward monitoring risk mitigation. Additionally, this group provides in-house training on Reliability Standards to effectuate a consistent view of the meaning and purpose of the standards and their relationship with the various work products of the committees and subcommittees. The PRISM group also conducts statistical analysis around the results of standards to identify potential weaknesses, redundancies, and overall necessity.

Stakeholder Engagement and Benefit

NERC manages the work of over 200 industry contributors who serve on the Standards Committee, subgroups, and other project teams for the development of Reliability Standards. As part of the standard development process, industry technical experts scope, draft, and review new or revised Reliability Standards for approval by the industry ballot body, adoption by the Board, and filing with regulatory authorities in the United States and Canada. NERC standards staff provide project management and leadership to develop solutions necessary to address reliability risks identified through the Reliability Risk Management Process (RRMP). These solutions may include the development of or modifications to Reliability Standards, in which standards staff (1) conduct outreach activities; (2) facilitate drafting teams, including assisting teams in maintaining adherence to the development process in the [Standard Processes Manual](#); (3) provide drafting support; and (4) ensure that the quality of documents produced is appropriate for approval by industry and the Board.

Additionally, federal, state, and provincial regulatory authorities, the Board, Regional Entities (REs), and many industry stakeholders have expressed interest in the identification of costs incurred from implementing Reliability Standards compared to risks they address. These elements are considered by requesting industry feedback on costs throughout the standard development or revision process.

The PRISM group has significant interaction with stakeholder groups, including the NERC Reliability and Security Technical Committee (RSTC) and its subcommittees and the Reliability Issues Steering Committee (RISC). The purpose of this engagement is to be apprised of all activities within the committee meetings and work plans to drive a cross-cutting approach to addressing BPS risks and standards-related issues. As Standard Authorization Requests (SARs) and Requests for Interpretations (RFIs) are developed, this group ensures the process to address these items is coordinated and reviewed for technical accuracy.

Tools and Technology

The main tool used by the Reliability Standards program is a standards balloting and commenting system. This system provides a seamless user interface for balloting and submitting comments on Reliability Standards under development. NERC's annual budget accounts for ongoing maintenance and any necessary enhancements for this system. Additionally, the PRISM group is working to launch a cross cutting tool to serve as a repository to track RISC-identified issues and NERC and RE stakeholder committee work plan items. The tool's main objective is to ensure complete visibility to the efforts and results of these RISC and ERO Enterprise activities by providing a central tool to (1) track the various work products in response to emerging risks identified by the RISC, RSTC, and RE committees, providing a greater level of work product efficiency, and (2) cross-cut across the ERO Enterprise organizations so that work products and activities can be leveraged for optimal visibility and ultimate mitigation. This tool is being developed using in-house resources at NERC on existing internal platforms, and will include RE-facing reports or interfaces. The system will be used to keep the RSTC and other applicable stakeholders updated on project status. Additionally, as the Risk Registry is developed across the ERO Enterprise, PRISM may implement new tools to address risk identification, prioritization, and reporting.

Key Efforts Underway

NERC ensures that the Reliability Standards Development Plan (RSDP) is effectively executed and that standards are focused on and mitigate significant risks to BES reliability. In support of Focus Areas 1, 4, and 5 of the *ERO Enterprise Long-Term Strategy*, the Reliability Standards group's key activities include:

- **Focusing on the selection of projects undertaken.** Resources are expended on issues determined to be a reliability risk through the RRMP. The Reliability Standards group applies broad project management skills to implement a variety of solutions to a reliability concern. An effective solution to an identified risk may be a Reliability Standard, a guideline, information request, training, NERC Alert, technical conference, research, or a combination of these or other tools.

- **Addressing FERC directives and responding to FERC orders or special reports** through standard development projects, as necessary. Each project determines whether: (1) the directive will be complied with as issued; (2) there is another equally effective way to address the concern that fostered the directive; or (3) there is technical justification that resolution of the directive is no longer needed, including whether the directive has been overcome by other events, processes, or advances in technology.
- **Standards Efficiency Review.** In 2018, NERC and industry began a comprehensive review of the Reliability Standards to measure their effectiveness and ability to mitigate the risks to the reliability and security of the BPS as compared to the industry burden for their implementation. One outcome of this review was the need to retire or enhance requirements based on operational experience. This includes an analysis of reliability risk, particularly emerging risks, and cost effectiveness. In 2019, projects were initiated to address the results of this review to retire or modify Reliability Standards. The [Standards Efficiency Review Report and Transition Plan](#) outlines one additional recommendation to minimize the need for future standards efficiency review type projects solely dedicated to remove or reduce administrative inefficiencies in the NERC Reliability Standards. As a result, standards development processes will be assessed and recommended standards modifications will be considered by future standard drafting teams and periodic review teams from Phase 1 and Phase 2 recommendations. For more information, see the [Standards Efficiency Review](#) page on the NERC website.
- **Facilitating smooth transition to new standards.** This includes working with other NERC program areas and the REs to develop guidelines, webinars, and other activities to support auditor and industry training for new standards.

In support of Focus Areas 1, 2, and 4 of the *ERO Enterprise Long-Term Strategy*, key efforts underway for the PRISM group include:

- Completing NERC position documents for Distributed Energy Resources (DER), Interconnection Reliability Operating Limits (IROL) and System Operating Limits (SOL), and Energy Adequacy. These position documents will be compiled in collaboration with various NERC stakeholder groups, including but not limited to the RSTC, Inverter-Based Resource Performance Task force (IRPTF), and System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG);
- Reporting on statistical analysis around misoperations data to identify trends and discrete areas for improvement;
- Conducting Reliability Standards training for NERC and RE staff to enable consistent understandings. The PRISM group has extensive experience in standards development. As a result, the PRISM team provides additional standards training as needed for the ERO Enterprise;
- Refining the cross cutting tool discussed above while prioritizing risks in the Risk Registry;
- Measuring the effectiveness of the recently approved Electric Gas Working Group (EGWG) industry guideline on fuel assurance. Appropriate measurement and determination of the efficacy of this guideline will be a key driver in a potential fuel assurance standard;
- Supporting the FERC/NERC inquiry into the Texas Winter event of 2021; and
- Executing the work plan for the Energy Reliability Assessment Task Force (ERATF).

2022 Goals and Deliverables

In 2022, the Reliability Standards group will continue the key activities discussed above by addressing potential improvements to standards, any new directives issued by FERC, as well as any reliability risks identified through RRMP or by the RISC for which a Reliability Standard is part of the solution. Additionally, staff will work with industry to determine whether there is a need to make further improvements to the standards through periodic reviews that include: (1) a measured review of the content of standards, considering whether the requirements could more effectively mitigate risks to the BPS; (2) whether the standards are results-based and drafted with high quality; (3) whether the standards are concise or if the number of requirements could be reduced; and (4) whether compliance expectations are clear. The PRISM group will continue to support Reliability Standards by providing technical support throughout the development process.

Future Plans

In 2023 and beyond, as emerging technologies that are interconnected at scale continue to provide challenges and uncertainties to BPS reliability, standards alignment with the effects of these technologies is critical. This includes battery storage, DER, the proliferation of electric vehicles, cyber implications on system design, operations, restoration, energy management and systemic risks from interdependencies among gas, electric, and communications systems. This may also include seasonal preparation from utilities to ensure reliability during weather or other extreme events. NERC has access to increasing amounts of data for the purpose of identifying trends to BPS reliability risks, which can inform the efficacy of standards with respect to these emerging risks. NERC will continually evaluate approaches to ensure that standards are developed appropriately with respect to the commensurate cross-cutting influence and expertise available.

Resource Requirements

Personnel

The increase of 2.82 FTEs reflects the addition of one reallocated open position from Reliability Assessment and Performance Analysis (RAPA) and the addition of two positions for increased standards development activity related to (1) Critical Infrastructure Protection (CIP) standards revisions necessitated by the escalating threat environment and recent supply chain compromises, (2) RSTC-identified changes to operations and planning standards, and (3) the overall rapid transformation of the grid, especially in the areas of renewable resources and extreme events.

Consultants and Contracts

The \$159k for Consultants & Contracts expenses in 2022 is for technical and application support. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

The \$27k increase for Meetings and Conference Calls in 2022 reflects a return to some in-person meetings following pandemic conditions in 2021, particularly with respect to anticipated increased standards-related activity.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Reliability Standards and Power Risk Issue Strategic Management					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 7,833,694	\$ 7,833,694	\$ -	\$ 9,420,030	\$ 1,586,336
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 7,833,694	\$ 7,833,694	\$ -	\$ 9,420,030	\$ 1,586,336
Third-Party Funding					
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	22,947	421	(22,526)	10,895	(12,052)
Total Funding (A)	\$ 7,856,641	\$ 7,834,115	\$ (22,526)	\$ 9,430,925	\$ 1,574,284
Expenses					
Personnel Expenses					
Salaries	\$ 2,468,752	\$ 2,705,314	\$ 236,563	\$ 2,951,243	\$ 482,491
Payroll Taxes	155,276	161,678	6,402	183,584	28,308
Benefits	415,057	399,872	(15,185)	467,848	52,791
Retirement Costs	272,927	277,120	4,193	324,253	51,327
Total Personnel Expenses	\$ 3,312,011	\$ 3,543,984	\$ 231,973	\$ 3,926,928	\$ 614,917
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 37,860	\$ 10,000	\$ (27,860)	\$ 65,000	\$ 27,140
Travel	115,147	32,900	(82,247)	115,000	(147)
Total Meetings & Travel Expenses	\$ 153,007	\$ 42,900	\$ (110,107)	\$ 180,000	\$ 26,993
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 114,552	\$ 271,080	\$ 156,528	\$ 158,960	\$ 44,408
Office Rent	-	-	-	-	-
Office Costs	45,850	65,617	19,767	52,850	7,000
Professional Services	-	-	-	-	-
Miscellaneous	2,200	2,300	100	2,300	100
Total Operating Expenses, excluding Depreciation	\$ 162,602	\$ 338,997	\$ 176,395	\$ 214,110	\$ 51,508
Total Direct Expenses	\$ 3,627,620	\$ 3,925,881	\$ 298,261	\$ 4,321,038	\$ 693,418
Indirect Expenses	\$ 4,087,161	\$ 4,551,801	\$ 464,640	\$ 4,916,148	\$ 828,986
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 7,714,782	\$ 8,477,682	\$ 762,901	\$ 9,237,186	\$ 1,522,404
Change in Net Assets (=A-B)	\$ 141,859	\$ (643,568)	\$ (785,427)	\$ 193,740	\$ 51,880
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 82,885	\$ 59,717	\$ (23,168)	\$ 397,858	\$ 314,973
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (12,558)	\$ (25,098)	\$ (12,539)	\$ (290,610)	\$ (278,051)
Loan or Financing Lease - Principal Payments (+)	71,533	76,837	5,304	86,491	14,958
Net Financing Activity (D)	\$ 58,974	\$ 51,739	\$ (7,235)	\$ (204,119)	\$ (263,093)
Total Budget (=B+C+D)	\$ 7,856,641	\$ 8,589,138	\$ 732,497	\$ 9,430,925	\$ 1,574,284
Change in Working Capital (=A-B-C-D)	\$ -	\$ (755,024)	\$ (755,024)	\$ -	\$ -
FTEs	16.92	17.56	0.64	19.74	2.82

Compliance Assurance and Organization Registration and Certification

Compliance Assurance and Organization Registration and Certification (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	23.50	21.62	(1.88)
Direct Expenses	\$ 6,591,671	\$ 6,492,428	\$ (99,243)
Indirect Expenses	5,730,723	5,384,352	(346,371)
Other Non-Operating Expenses	27,500	27,500	-
Fixed Asset Additions	1,066,217	695,750	(370,468)
Financing Activity	270,191	(36,058)	(306,249)
Total Budget	\$ 13,686,302	\$ 12,563,971	\$ (1,122,331)

Background and Scope

Compliance Assurance

NERC's Compliance Assurance group works collaboratively with the Regional Entities (REs) to ensure effective implementation of risk-based compliance monitoring under the Compliance Monitoring and Enforcement Program (CMEP) across the entire ERO Enterprise. This program ensures that REs monitor registered entities for compliance according to their own specific facts and circumstances, including the entity's inherent risks, evaluation of controls in place to mitigate the inherent risks, and other factors, such as risk elements and entity performance. Additionally, the risk-based compliance monitoring approach allows for the appropriate allocation of resources to the issues that pose a higher level of risk to the reliability of the BPS.

As part of the ERO Enterprise's risk-based CMEP, REs develop Compliance Oversight Plans (COPs) for each registered entity. The COP process provides the risk assessment and planning foundation to inform how and when each RE uses its monitoring processes (tools), including compliance audits, self-certification, and spot checking.

Under the COP approach, each RE assesses, categorizes, and prioritizes the inherent and performance risk of registered entities for CMEP purposes within a RE's larger population of registered entities. The COP is a continuous cycle that, with other COPs, informs the RE's planning and scheduling of compliance monitoring activities. REs also share a summary of the COP with each registered entity.

The Compliance Assurance group's responsibilities include but are not limited to the following major activities and functions:

- Oversight of the REs' implementation of the risk-based compliance monitoring program and NERC Rules of Procedure (ROP) in North America;
- Development and execution of the annual CMEP Implementation Plan (IP);
- Oversight of the use of necessary compliance-related processes, procedures, IT platforms, tools, and templates;
- Development and delivery of education and training for ERO Enterprise staff;

- Training and outreach activities for the CIP Reliability Standards and subsequent enhancements to support industry compliance and security;
- Coordination with the Reliability Standards group to assist in the smooth transition of standards from development to enforceability, providing feedback on risks seen in the field that are not addressed by a standard, as well as information on where a standard is too broad; and
- Support for RE and industry committees, working groups, and task forces, such as the ERO Risk, Performance, and Monitoring group (NERC and RE collaboration group), NERC Compliance and Certification Committee (CCC), and NERC Reliability and Security Technical Committee (RSTC).

Organization Registration and Certification

Organization Registration (Registration) identifies and registers BPS users, owners, and operators that are responsible for performing specified reliability functions to which requirements of mandatory Reliability Standards are applicable. Organization Certification (Certification) ensures that an applicant to be a Reliability Coordinator (RC), Balancing Authority (BA), or Transmission Operator (TOP) has the tools, processes, training, and procedures to demonstrate its ability to meet the requirements of all the Reliability Standards applicable to the functions for which it is applying, thereby demonstrating the ability to become certified and then operational. The decision to certify changes to an already operating and certified RC, BA, or TOP is a collaborative decision between the affected REs and NERC. Together, the Registration and Certification groups manage the Organization Registration and Certification Program (ORCP).

The Registration and Certification group's responsibilities include but are not limited to the following major activities and functions:

- Oversight of the REs' implementation of Registration and Certification programs in North America;
- Leading NERC-led Review Panel proceedings;
- Oversight of the use of necessary processes, procedures, IT platforms, tools, and templates;
- Leading and supporting RE and industry committees, working groups, and task forces, such as the ERO Organization Registration and Certification Group (NERC and Regional Entity collaboration group), NERC CCC, and the CCC Organization Registration and Certification Subcommittee (ORCS);
- Maintaining the NERC Compliance Registry (NCR) and adhering to the Rules of Procedure, Sections 500, and Appendices 5A, 5B, and 5C; and
- Providing training on IT applications, mainly the Centralized Organization Registration ERO System (CORES) and the Coordinated Functional Registration (CFR) tool, to REs and registered entities to enhance use of these applications.

Stakeholder Engagement and Benefit

Compliance Assurance engages with stakeholders in two primary ways:

1. Through the CCC. The CCC is chartered to engage with, support, and advise the Board and NERC regarding all facets of the CMEP and Registration and Certification programs. Among other things, Compliance Assurance works with the CCC on activities related to the ERO Enterprise Effectiveness Survey, in seeking input and advice on the development of draft Reliability Standard Audit Worksheets (RSAWs) and the Compliance Guidance process, and coordinating ERO Enterprise Program Alignment Process issues.

2. Through stakeholder outreach. This is conducted through webinars related to specific processes throughout the year, such as to discuss development and evolution of the CMEP IP, and through RE and NERC workshops and conferences.

Registration and Certification engages with the CCC's ORCS, which oversees the ORCP. Registration and Certification staff also work with entities individually on specific questions pertaining to an entity's unique facts and circumstances. As appropriate, the Registration and Certification group conducts webinars and other outreach explaining various work products or high-profile activities, including CMEP Practice Guides, modifications to existing documents, IT application developments, etc. The Registration and Certification group also engages industry stakeholders by presenting at NERC and RE workshops and other forums.

Tools and Technology

Historically, NERC has used the Compliance Reporting and Tracking System (CRATS) as its compliance database. CRATS also included modules for Reliability Standards, Technical Feasibility Exceptions (TFEs), and Registration. NERC has been working closely with the REs to implement strategic investments in tools that will replace CRATS and the CMEP and Registration data applications used among the REs with single, common applications, known as Align and its associated ERO Secure Evidence Locker (SEL) for CMEP and CORES for Registration. CORES was initially released in 2019 and Align and the ERO SEL launched in 2021. Funding for support of the CRATS application at reduced levels continues to be required for historical record maintenance purposes.

The objectives and benefits of the Align tool include (1) a single common portal and experience for registered entities; (2) improved integration of and access to data, as well as increased analytics; and (3) standardized business processes and consistent application of the CMEP, resulting in increased productivity and reduced application costs across the ERO Enterprise. The ERO SEL complements the Align tool by supporting the secure transfer, management, retention, and destruction of sensitive registered entity files used in CMEP activities. Collectively, the Align tool and the ERO SEL provides a platform to enable harmonization of RE practices, driving to a common registered entity experience while facilitating the secure submission, review, and retention of evidence generated during CMEP activities. The first release of Align and the ERO SEL to support self-reporting, self-logging, enforcement, and mitigation occurred in a phased manner across the REs during the first and second quarters of 2021, with two more releases planned in 2021 to support Compliance Assurance activities. For more information, see the [Align Project](#) page on the NERC website.

CORES similarly creates consistent RE and registered entity processes and improves data maintenance, including capturing data elements to be integrated with the Align application. Additionally, registered entities are able to directly manage their registration needs. The initial release of CORES was implemented in 2019, with further enhancements ongoing. For more information, see the [CORES Technology Project](#) page on the NERC website.

A BES notification and exception system tool is also used in support of the Registration group's activities. The application allows registered entities to submit to their respective RE notifications of changes to BES assets that affect the registered entity's responsibilities for compliance with the Reliability Standards.

Key Efforts Underway

In support of Focus Areas 1, 4, and 5 of the *ERO Enterprise Long-Term Strategy*, current and ongoing efforts and activities for Compliance Assurance are as follows:

NERC Oversight of Risk-Based Compliance Monitoring

NERC continues to implement risk-based compliance monitoring as part of its stated objectives of ensuring BPS reliability, improving consistency, effectiveness, and efficiency of ERO Enterprise compliance operations, focusing on identified risks and reducing unnecessary burdens on registered entities. Ensuring the successful implementation of NERC's risk-based CMEP remains the priority of Compliance Assurance's oversight plan for the REs. As part of that oversight, and in addition to offering regular feedback to the REs, NERC continues to identify areas for improvement or promoting consistency through training, guidance, or adjustments. For 2022 and beyond, emphasis on oversight related to integrating Align into CMEP activities continues. NERC also produces an ERO Enterprise CMEP annual report, which includes an assessment of the risk-based CMEP implementation.

In addition, during the Coronavirus Pandemic of 2020 and 2021, the ERO Enterprise released guidance that provided regulatory relief related to registered entities' coronavirus response and temporarily expanded the Self-Logging Program. The ERO Enterprise also deferred on-site audits through December 31, 2021, and, during that time, it successfully coordinated remote virtual audits and other activities that were originally scheduled to be on-site. On-site activities will resume as it becomes safe to do so, and in a manner that prioritizes risk.

Program Alignment Process

The ERO Enterprise continues to align CMEP activities across North America. The ERO Enterprise Program Alignment Process provides a structure for collecting, reviewing, resolving, and communicating discrepancies in practices across the ERO Enterprise. Alignment issues come to the ERO Enterprise from a variety of sources, including industry submittals and NERC oversight.

Align and ERO SEL Projects

The development of the Align tool and ERO SEL discussed above have required NERC and the REs to coordinate extensively to harmonize several aspects of CMEP activities, improving overall program execution and alignment.

RE Training

Compliance Assurance provides training to RE staff on critical elements of risk-based compliance monitoring, including enhancements to registered entity Inherent Risk Assessments (IRAs), internal controls reviews, COP development, and Reliability Standards monitoring. NERC also provides training on documentation practices of CMEP work within Align and the ERO SEL. NERC develops this training based on observations from its oversight activities of the REs, as well as the process reviews described above.

Small Group Advisory Sessions

Compliance Assurance periodically hosts Small Group Advisory Sessions (SGAS) with industry that include in-depth discussions around the possible implementation of controls for newly approved, but not yet effective, Reliability Standards to address and mitigate cyber and physical security risks of the BPS. Historically, the focus of the SGAS activities was related to supporting implementation of the Cyber Security Supply Chain Risk Management Reliability Standard.

Recent, current, and ongoing activities for Registration and Certification include:

- Maintenance of CORES, discussed above, including continued focus on functionality for CFRs;
- Execution of Certification engagements and response to industry changes requiring Certification review, with particular emphasis on control center relocations, Energy Management System (EMS) replacements, and RC, BA, and TOP footprint changes; and
- Processing registration change requests, including NERC-led Review Panels and BES Exceptions.

2022 Goals and Deliverables

In 2022, Compliance Assurance resources will focus on improvements implemented as a result of previous risk-based compliance monitoring activities. In continued support of the *ERO Enterprise Long-Term Strategic Plan*, specific objectives for this group are:

- As on-site compliance monitoring activities resume, work closely with REs to ensure that 2022 activities are risk-informed and evaluate 2020 and 2021 experiences.
- Continue to mature the risk-based compliance monitoring program, providing ongoing oversight of the risk-based CMEP, including IRAs, consideration of internal controls, coordinated oversight of Multi-Region Registered Entities (MRREs), and ensuring COPs are addressing the relevant risks and inform RE CMEP planning.
- Work closely with NERC's Enforcement and IT departments, as well as staff in the REs, to maintain and enhance the Align and ERO SEL tools.
- Support the continued successful implementation of the Cyber Security Supply Chain Risk Management Reliability Standard.
- Support the continued successful implementation of the CIP Version 5 Reliability Standards and subsequent enhancements as they become effective.
- Monitor and support effective implementation of the physical security Reliability Standards.
- Enhance and implement training to support monitoring of Reliability Standards, integrating principles from the *Compliance Monitoring Competency Guide*.
- Continue feedback to the Reliability Standards group through coordination between the standards and compliance functions to allow for clear stakeholder implementation of standards, as well as feedback on risks seen in the field. This effort will be supported through a common set of RSAWs, guidance, and outreach.
- Continue to focus on how registered entities have mitigated reliability and security risks while achieving compliance with the Reliability Standards, including applicable internal controls.
- Support international CMEP activities, including reliability and security subject matter expertise and outreach.
- Provide support and leadership to the CCC as well as its subcommittees, working groups, and task forces. Support the CCC leadership and development and implementation of annual work plans.

The Registration and Certification group will continue the ongoing activities described above as applicable. With CORES fully deployed, there will be an opportunity to explore how the ERO IT platforms can further enhance work products, communication, and data tracking and reporting.

Future Plans

For 2023 and beyond, NERC anticipates continued implementation and enhancement of the Align and ERO SEL tools, providing significant impetus for continued harmonization of CMEP processes across the ERO Enterprise and enhanced CMEP workflow management. Additionally, the Align and ERO SEL implementation, along with continued coordination among NERC and the REs, should result in significant maturation and harmonization of risk-based CMEP processes, particularly in realizing opportunities to enhance the use of the risk-based CMEP processes to support CMEP planning activities.

Resource Requirements

Personnel

Reflecting continued program maturation, the decrease of 1.88 FTEs is due to the reallocation of two open positions in Compliance Assurance to Administrative Programs in support of the People Strategy discussed in the *Introduction and Executive Summary*.

Consultants and Contracts

The \$255k increase for Consultants & Contracts from the 2021 budget to the 2022 budget is primarily related to support for the FERC-mandated CMEP audits of the REs and a post-implementation audit of Align, for which the total budget is split evenly between the Compliance Assurance and Compliance Enforcement areas. The increase also accounts for funding for program process documentation support. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Meetings and Conference Calls

The \$30k increase for Meetings and Conference Calls in 2022 reflects a partial return to in-person meetings following pandemic conditions in 2021.

Office Costs

The \$647k for Office Costs in the 2022 budget primarily consists of expenses for software licensing and support for Align and the ERO SEL, for which the total annual cost is split evenly between Compliance Assurance and Compliance Enforcement.

Fixed Asset Additions

The 2022 Fixed Asset budget includes \$250k for ongoing enhancements and maintenance for Align and the ERO SEL, for which the total annual cost is split evenly between Compliance Assurance and Compliance Enforcement, and approximately \$10k for CORES enhancements.

Net Financing Activity

Net financing activity for 2022 includes approximately \$188k for loan principal payments for the ERO SEL capital investment borrowing in 2020, for which the total annual cost is split evenly between Compliance Assurance and Compliance Enforcement.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Compliance Assurance and Organization Registration and Certification					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 13,654,127	\$ 13,654,127	\$ -	\$ 12,552,038	\$ (1,102,089)
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 13,654,127	\$ 13,654,127	\$ -	\$ 12,552,038	\$ (1,102,089)
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	32,175	512	(31,664)	11,933	(20,243)
Total Funding (A)	\$ 13,686,302	\$ 13,654,639	\$ (31,664)	\$ 12,563,971	\$ (1,122,331)
Expenses					
Personnel Expenses					
Salaries	\$ 4,038,791	\$ 3,861,901	\$ (176,890)	\$ 3,759,888	\$ (278,902)
Payroll Taxes	244,418	230,307	(14,111)	224,943	(19,475)
Benefits	824,511	736,067	(88,444)	761,083	(63,428)
Retirement Costs	449,687	399,661	(50,027)	416,398	(33,290)
Total Personnel Expenses	\$ 5,557,407	\$ 5,227,935	\$ (329,471)	\$ 5,162,312	\$ (395,095)
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 51,742	\$ 16,000	\$ (35,742)	\$ 82,000	\$ 30,258
Travel	237,413	67,832	(169,581)	251,000	13,587
Total Meetings & Travel Expenses	\$ 289,155	\$ 83,832	\$ (205,323)	\$ 333,000	\$ 43,845
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 89,552	\$ 240,160	\$ 150,608	\$ 345,000	\$ 255,448
Office Rent	-	-	-	-	-
Office Costs	652,307	641,080	(11,227)	648,866	(3,441)
Professional Services	-	-	-	-	-
Miscellaneous	3,250	3,250	-	3,250	-
Total Operating Expenses, excluding Depreciation	\$ 745,109	\$ 884,490	\$ 139,381	\$ 997,116	\$ 252,007
Total Direct Expenses	\$ 6,591,671	\$ 6,196,257	\$ (395,413)	\$ 6,492,428	\$ (99,243)
Indirect Expenses	\$ 5,730,723	\$ 5,534,225	\$ (196,498)	\$ 5,384,352	\$ (346,371)
Other Non-Operating Expenses	\$ 27,500	\$ 27,500	\$ (0)	\$ 27,500	\$ -
Total Expenses (B)	\$ 12,349,894	\$ 11,757,982	\$ (591,912)	\$ 11,904,280	\$ (445,615)
Change in Net Assets (=A-B)	\$ 1,336,408	\$ 1,896,656	\$ 560,248	\$ 659,691	\$ (676,717)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 1,066,217	\$ 1,372,606	\$ 306,389	\$ 695,750	\$ (370,468)
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (17,609)	\$ (380,515)	\$ (362,906)	\$ (318,287)	\$ (300,678)
Loan or Financing Lease - Principal Payments (+)	287,799	208,421	(79,379)	282,228	(5,571)
Net Financing Activity (D)	\$ 270,191	\$ (172,094)	\$ (442,285)	\$ (36,058)	\$ (306,249)
Total Budget (=B+C+D)	\$ 13,686,302	\$ 12,958,495	\$ (727,808)	\$ 12,563,971	\$ (1,122,331)
Change in Working Capital (=A-B-C-D)	\$ -	\$ 696,144	\$ 696,144	\$ -	\$ -
FTEs	23.50	21.35	(2.15)	21.62	(1.88)

Compliance Enforcement

Compliance Enforcement (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	12.22	12.22	0.00
Direct Expenses	\$ 3,129,467	\$ 3,317,700	\$ 188,233
Indirect Expenses	2,979,976	3,043,329	63,353
Other Non-Operating Expenses	27,500	27,500	-
Fixed Asset Additions	960,433	496,293	(464,140)
Financing Activity	230,499	61,141	(169,358)
Total Budget	\$ 7,327,875	\$ 6,945,963	\$ (381,912)

Background and Scope

The Enforcement group is responsible for overseeing enforcement processes, the application of penalties or sanctions, and activities to mitigate and prevent recurrence of noncompliance with Reliability Standards. The group works collaboratively with the REs to ensure consistent and effective implementation of the risk-based CMEP. The group focuses on ensuring that the ERO Enterprise dedicates resources to the matters that pose the greatest risk to the reliability of the BPS. The scope of the Enforcement group's activities include the following:

- Monitoring REs' enforcement processes and providing oversight of their outcomes to ensure alignment across the ERO Enterprise;
- Collecting and analyzing enforcement data and trends to help identify emerging risks to the BPS and inform the development of enforcement policies and processes;
- Filing Notices of Penalty (NOPs) and other disposition documents associated with noncompliance discovered through RE or NERC-led CMEP activities;
- Collaborating with other NERC departments, including Compliance Assurance, Reliability Standards, and Event Analysis; and
- Training ERO Enterprise staff and registered entities, as well as supporting other outreach efforts.

Stakeholder Engagement and Benefit

Enforcement engages with stakeholders through interaction with and presentations to the CCC, NERC and RE workshops, and ERO Enterprise webinars to communicate with registered entities about the most significant risks to reliability and security. Enforcement uses those forums to share information about violations and their mitigation to reduce those significant risks.

Tools and Technology

Historically, NERC has used CRATS to track violations, mitigation plans, and reporting. As discussed in the *Compliance Assurance and Organization Registration and Certification* section above, NERC has been working closely with the REs to implement strategic investments in tools that will replace CRATS and the CMEP data applications used among the REs with single, common applications, known as Align and its associated ERO SEL. The first release of Align and the ERO SEL to support self-reporting, self-logging, enforcement, and mitigation occurred in a phased manner across the REs during the first and second quarters of 2021, with two more releases planned in 2021 to support Compliance Assurance activities.

Funding for support of the CRATS application at reduced levels continue to be needed for historical record maintenance purposes. For more information, see the [Align Project](#) page on the NERC website.

Key Efforts Underway

In support of Focus Areas 1, 4, and 5 of the *ERO Enterprise Long-Term Strategy*, current and ongoing efforts and activities for Compliance Enforcement are as follows:

Risk-based Enforcement

The ERO Enterprise’s responsibility to address risks to reliability and security includes resolving violations that posed significant risks. Enforcement is identifying those serious violations, ensuring appropriate resolution of those cases, and communicating results to industry.

Streamlining of Minimal Risk Noncompliance

Enforcement continues to enhance risk-based enforcement by identifying additional opportunities to streamline the resolution of minimal risk noncompliance. This effort includes examining the processes to review and assess the risk of noncompliance to resolve minimal risk noncompliances more efficiently.

Program Alignment Process

The ERO Enterprise continues to align CMEP activities across North America. The ERO Enterprise Program Alignment Process provides a structure for collecting, reviewing, resolving, and communicating discrepancies in practices across the ERO Enterprise. Alignment issues come to the ERO Enterprise from a variety of sources, including industry submittals and NERC oversight.

Align and ERO SEL Projects

The development of the Align tool and ERO SEL discussed above have required NERC and the REs to coordinate extensively to harmonize several aspects of CMEP activities, improving overall program execution and alignment.

Continued Outreach

NERC CMEP staff provides CMEP training to ERO Enterprise staff through workshops, instructor-led training events, eLearning opportunities, and oversight of RE training and education activities. These opportunities focus on identifying gaps in staff knowledge and capabilities related to the risk-based CMEP.

2022 Goals and Deliverables

Specific 2022 objectives for the Enforcement department include continuing to:

- Focus on identifying and mitigating the greatest risks to reliability and security.
- Support the enhancement of the Align and ERO SEL tools.
- Expand risk-based focus in Enforcement.
- Sustain and expand stakeholder outreach.
- With RE and stakeholder feedback, continue evaluation of compliance monitoring and enforcement processes for efficiency.

Future Plans

In 2023 and beyond, NERC and the REs will continue to conduct outreach focused on identification and mitigation of high risk noncompliance, risk assessment, and streamlined resolution of lower risk noncompliance. NERC plans to use existing industry events, such as RE and NERC conferences and industry webinars, to provide information on enforcement activities. Enforcement will continue to identify improvement areas and promotion of alignment through training, guidance, or other adjustments.

Resource Requirements

Personnel

There is no change in FTEs from the 2021 budget to the 2022 budget.

Consultants and Contracts

The increase of \$180k for Consultants & Contracts from the 2021 budget to the 2022 budget is primarily related to support for the FERC-mandated CMEP audits of the REs and a post-implementation audit of Align, for which the total budget is split evenly between the Compliance Assurance and Compliance Enforcement areas. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Office Costs

The \$640k for Office Costs in the 2022 budget primarily consists of expenses for software licensing and support for Align and the ERO SEL, for which the total annual cost is split evenly between Compliance Assurance and Compliance Enforcement. The Office Costs budget also includes funding for ongoing support for CRATS for historical records maintenance purposes.

Fixed Asset Additions

The 2022 Fixed Asset budget includes \$250k for ongoing enhancements and maintenance for Align and the ERO SEL, for which the total annual cost is split evenly between Compliance Enforcement and Compliance Assurance.

Net Financing Activity

Net financing activity for 2022 includes approximately \$188k for loan principal payments for the ERO SEL capital investment borrowing in 2020, for which the total annual cost is split evenly between Compliance Assurance and Compliance Enforcement.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Compliance Enforcement					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 7,311,144	\$ 7,311,144	\$ -	\$ 6,939,219	\$ (371,925)
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 7,311,144	\$ 7,311,144	\$ -	\$ 6,939,219	\$ (371,925)
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	16,731	294	(16,437)	6,744	(9,987)
Total Funding (A)	\$ 7,327,875	\$ 7,311,438	\$ (16,437)	\$ 6,945,963	\$ (381,912)
Expenses					
Personnel Expenses					
Salaries	\$ 1,839,039	\$ 1,790,568	\$ (48,471)	\$ 1,838,076	\$ (963)
Payroll Taxes	115,307	119,819	4,512	122,697	7,390
Benefits	220,988	187,872	(33,115)	210,112	(10,876)
Retirement Costs	196,667	196,549	(118)	204,099	7,432
Total Personnel Expenses	\$ 2,372,000	\$ 2,294,809	\$ (77,191)	\$ 2,374,984	\$ 2,984
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 6,310	\$ 2,000	\$ (4,310)	\$ 7,000	\$ 690
Travel	32,645	9,327	(23,318)	30,000	(2,645)
Total Meetings & Travel Expenses	\$ 38,955	\$ 11,327	\$ (27,628)	\$ 37,000	\$ (1,955)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 69,000	\$ 50,000	\$ (19,000)	\$ 249,000	\$ 180,000
Office Rent	-	-	-	-	-
Office Costs	632,612	623,953	(8,659)	639,816	7,204
Professional Services	15,000	10,000	(5,000)	15,000	-
Miscellaneous	1,900	1,900	-	1,900	-
Total Operating Expenses, excluding Depreciation	\$ 718,512	\$ 685,853	\$ (32,659)	\$ 905,716	\$ 187,204
Total Direct Expenses	\$ 3,129,467	\$ 2,991,989	\$ (137,478)	\$ 3,317,700	\$ 188,233
Indirect Expenses	\$ 2,979,976	\$ 3,185,744	\$ 205,768	\$ 3,043,329	\$ 63,353
Other Non-Operating Expenses	\$ 27,500	\$ 27,500	\$ -	\$ 27,500	\$ -
Total Expenses (B)	\$ 6,136,943	\$ 6,205,233	\$ 68,290	\$ 6,388,529	\$ 251,586
Change in Net Assets (=A-B)	\$ 1,190,932	\$ 1,106,206	\$ (84,727)	\$ 557,434	\$ (633,498)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 960,433	\$ 1,291,796	\$ 331,362	\$ 496,293	\$ (464,140)
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (9,157)	\$ (367,566)	\$ (358,409)	\$ (179,901)	\$ (170,745)
Loan or Financing Lease - Principal Payments (+)	239,656	168,777	(70,879)	241,042	1,386
Net Financing Activity (D)	\$ 230,499	\$ (198,789)	\$ (429,288)	\$ 61,141	\$ (169,358)
Total Budget (=B+C+D)	\$ 7,327,875	\$ 7,298,240	\$ (29,635)	\$ 6,945,963	\$ (381,912)
Change in Working Capital (=A-B-C-D)	\$ -	\$ 13,199	\$ 13,199	\$ -	\$ -
FTEs	12.22	12.29	0.07	12.22	0.00

Reliability Assessments and Performance Analysis

The Reliability Assessments and Performance Analysis (RAPA) program identifies, prioritizes, and enables activities to reduce known and emerging risks to the BPS. Four primary groups are focused on this program: (1) Reliability Assessments (RA) and Technical Committee; (2) Performance Analysis (PA); (3) Power System Analysis (PSA) and Advanced System Analytics and Modeling (ASAM); and (4) BPS Security and Grid Transformation (SGT).

Reliability Assessments and Performance Analysis (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	25.38	26.32	0.94
Direct Expenses	\$ 6,554,566	\$ 7,486,899	\$ 932,333
Indirect Expenses	5,873,428	6,554,863	681,435
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	118,866	1,005,478	886,611
Financing Activity	84,575	(272,158)	(356,733)
Total Budget	\$ 12,631,436	\$ 14,775,082	\$ 2,143,646

Background and Scope

Reliability Assessment and Technical Committee

The RA and Technical Committee group includes RA staff as well as the NERC staff secretaries of the RSTC. RA staff carry out the ERO's statutory responsibility to conduct assessments of the overall reliability and adequacy of the BPS and associated emerging reliability risks that could impact the short, mid, and long-term planning horizons, as well as other reliability issues requiring in-depth analysis. The RA program is governed by the requirements and procedures identified in Section 800 (801–805) of the NERC ROP. RA activities directly address the risk priorities established by the RISC, and the group relies on its own engineering and analysis expertise, as well as RE and stakeholder resources. Annual reports and assessments produced by RA staff include:

- Long-Term Reliability Assessment (LTRA) (supplemented by the Probabilistic Assessment)
- Summer and Winter Reliability Assessments
- Special Reliability Assessments (selected based on high-risk issues that require an independent assessment from the ERO)

The NERC RSTC and its subgroups provide the oversight, guidance, and leadership essential to enhancing BPS reliability by addressing areas of strategic focus efficiently and comprehensively, and ensuring technical accuracy. The NERC staff secretaries coordinate and administer these activities and efforts.

The RA and Technical Committee group works closely with stakeholders to create assessment development schedules with adequate stakeholder review at every level. NERC reliability assessments typically have a sponsoring technical committee, subcommittee, or other subgroup. The long-term and seasonal assessments are conducted by the Reliability Assessment Subcommittee (RAS), and ultimately endorsed by the RSTC. Special assessments often require a separate and specialized task force or advisory group to help construct, conduct, and produce special topic assessments.

Performance Analysis

The PA group monitors the performance of and identifies risks to BPS reliability through analyzing industry data and measuring historic trends. The PA program is governed by the requirements and procedures identified in Section 800 (801, 809, and 811) of the NERC ROP. PA is responsible for the collection, management, and analysis of data related to the performance of four areas of BPS operations: transmission, generation, protection system misoperations, and demand response. Analysis performed by PA includes identifying potential risks of concern related to system, equipment, entity, and organizational performance that may indicate a need to develop remediation strategies, improvements to reporting applications, new data collection or analysis tools, or data used to create, revise, or retire Reliability Standards or consider new Reliability Standards or reporting areas. Such analyses provide the foundation for the annual *State of Reliability* (SOR) report and other analytical reports and technical papers to the industry. PA staff leads the ERO, technical committee, and stakeholder process to publish the SOR report examining the year-over-year performance indicators of the grid. The PA program also develops the business requirements for all new reliability information data systems, specifically those required by NERC ROP Section 1600 Data Requests. PA program analysts work with internal and external software developers to support the creation, testing, and implementation of data systems.

Power System Analysis and Advanced System Analytics and Modeling

PSA staff provide technical leadership and support in the areas of resource and demand balancing and system analysis and modeling, including technical support for the NERC balancing (BAL) and modeling (MOD) Reliability Standards. This is particularly important as the system uses new technologies and significant changes in the resource mix occur, with even more projected. PSA staff responsibilities include:

- Assisting the RA and Technical Committee group in their independent reliability assessments;
- Interconnection-wide analysis of steady-state and dynamic conditions, including frequency, Essential Reliability Services (ERS), stability, short circuit ratio, and oscillatory behavior aspects, including support for the Resources Subcommittee and its subgroups and submission of the Frequency Response Annual Analysis (FRAA) report to FERC; and
- Assuring identification of BES electrical elements necessary for its reliable operation such that these are subject to the Reliability Standards.

ASAM staff provide support for the development and improvement of long-term, sustainable interconnection-based power flow, dynamic, and load models that exhibit the accuracy and fidelity necessary to reflect actual BES reliability performance and dynamic conditions. As new technology incorporation into the BPS accelerates, there is a need for new and improved models to support simulation of their contributions and impacts on reliability. This facilitates improved design and maximizes incorporation of new technology while maintaining reliable operation of the BPS. ASAM staff:

- Provide guidance on the appropriate development and use of new and existing models to study emerging risks, including ensuring that BPS planning can adequately assure system reliability and security as the transmission and distribution interface evolves and resource penetration on the distribution system increases;
- Advance understanding of power system characteristics and behaviors by gathering larger phasor measurement unit (PMU) datasets for advanced data analytics and modeling improvements;
- Promote and expand understanding of the growing need and available methods for probabilistic studies to augment deterministic studies in system planning, including support for the Probabilistic Assessment Working Group (PAWG) that reports to the RAS;

- Conduct advanced system studies of increasing penetrations of new resource technologies or new technologies facilitating these penetrations, such as Battery Energy Storage Systems (BESS), as well as piloting use of new resource models for system simulations;
- Publish Institute of Electrical and Electronics Engineers (IEEE) and other industry papers to promote continual advancement of BPS knowledge and understanding; and
- Support research projects, including work with the Carnegie Mellon Industry Center (CEIC), the Power Systems Energy Research Center (PSERC), the Department of Energy (DOE) North American Energy Resilience Model (NAERM), and the Electric Power Research Institute (EPRI) and NERC solar project to advance modeling and protection for solar inverter-based resources.

ASAM further provides advanced statistical analysis functions to support: (1) the SOR report and reliability assessments; (2) the FRAA report and other parameters; (3) analytical review of Reliability Standard effectiveness; and (4) various reports on an emergent basis. ASAM also enhances NERC’s credibility by publishing IEEE papers (frequently recognized as “Best Paper”) that advance and gain academic acceptance of new concepts in statistical methods relative to the BPS. ASAM forms strong relationships through its selection of co-authors and co-presenters from industry and academic stakeholders.

BPS Security and Grid Transformation

SGT staff provide technical leadership and coordination for internal and external stakeholder efforts related to “security integration” and “grid transformation” topics. The group develops and promotes strategies for cyber and physical security to be integrated with conventional grid planning, operations, design, and restoration activities. In addition, the group coordinates a number of technical stakeholder groups in the areas of security and emerging grid transformation issues. SGT staff are responsible for:

- Coordinating technical stakeholder groups under the RSTC, including the following:
 - Security Integration and Technology Enablement Subcommittee (SITES)
 - Inverter-Based Resource Performance Working Group (IRPWG)
 - System Planning Impacts from DERs Working Group (SPIDERWG)
 - Synchronized Measurement Working Group (SMWG)
 - Security Working Group (SWG)
 - Supply Chain Working Group (SCWG)
 - Electromagnetic Pulse Working Group (EMPWG)
- Integrating cyber security into all aspects of system planning, operations and restoration;
- Providing vision and strategic leadership for the ERO Enterprise on cyber security during the planning, operating, and recover horizons;
- Supporting efforts to advance the RISC’s security risk mitigation recommendations, helping identify security-related risks, and engaging efforts to mitigate those risks for registered entities;
- Engaging with industry stakeholders and industry forums to advance and enable new technologies in a secure manner;
- Supporting standards development process on engineering and security-related topics, particularly around security enablement and emerging grid technology issues; and
- Coordinating with the Electricity Information Sharing and Analysis Center (E-ISAC) on cross-departmental topics related to security risks.

Stakeholder Engagement and Benefit

The groups described above work collaboratively with NERC stakeholders, particularly through the RSTC and their technical subgroups, to create a reliability strategy that is relevant, timely, and effective to address the most important reliability risks. These efforts include:

- Synthesizing key information identified through analysis and assessment efforts;
- Extracting and prioritizing the associated reliability risks;
- Sharing and integrating risk analysis insights across the ERO Enterprise; and
- Translating knowledge into actionable guidance and recommendations for the Board and industry, along with state, federal, and provincial policymakers.

Further, these groups continue to work closely with other organizations, including but not limited to the DOE, EPRI, IEEE, the Institute of Nuclear Power Operations (INPO), North American Transmission Forum (NATF), North American Generator Forum (NAGF), Interstate Natural Gas Association of America (INGAA), Natural Gas Supply Association (NGSA), Canadian Electricity Association (CEA), and International Council on Large Electric Systems (CIGRÉ).

Tools and Technology

The following tools are used by RA, PA, PSA, and ASAM staff to support their activities:

- Advanced analytics and analysis software
- Engineering software
- Infrastructure and geographic-related vulnerabilities analysis software
- Data management systems, including data for:
 - Generating availability (conventional and wind)
 - Transmission availability
 - Misoperations information
 - Reliability assessments
 - BA submittals
 - Frequency response analysis
 - Inadvertent interchange

Key Efforts Underway

In addition to the development of the annual assessments and reports, and in support of Focus Areas 2 and 5 of the *ERO Enterprise Long-Term Strategy*, RA focus areas and ongoing activities include:

- Ensure effective ERS in future resource mix. These efforts are expected to lead to a broad set of recommendations that culminate with defined elements, an evaluation of initial metrics and data compilation of actual performance, and refinement of the ongoing assessment of ERS measures;
- Advancing the value of the seasonal reliability assessment by providing predictive evaluations of the operational risk in each assessment area, and assessing the energy management plans and sufficiency for the upcoming season. In addition to the Planning Reserve Margin analysis, seasonal reliability assessments use historical resource performance data to identify expected and potentially extreme operational risks;

- Advancing probabilistic assessments and evaluations of energy assurance and energy management plans (including plans for managing energy requirements during extreme weather); and
- Enhancing ERO Enterprise-wide effectiveness and efficiency of RA-related functions. This includes coordinating data and information systems across the ERO Enterprise and providing consistent oversight regarding data collection, checking, validation, and assessment.

Additionally, support for the newly created ERATF will require resources to support energy adequacy challenges. Decarbonization efforts are expected to continue to drive fundamental changes in electricity supply, with significantly higher levels of variable and energy limited resources and decreasing levels of dispatchable synchronous generation. With more of the energy economy dependent on the electricity sector, the reliability and resiliency of the supply of electricity may need to increase to meet societal expectations and requirements. A key capability to achieve this need is the ability to assess whether the expected resources are adequate for meeting electricity demand for the future scenarios that may be encountered. As recent supply deficiency events in 2020 and 2021 have shown, however, traditional resource adequacy processes, based on capacity, metrics, and tools do not provide the level of resiliency required in the context of changing climate, changing resource mix, and extreme weather scenarios. NERC will work with EPRI, DOE, Natural Resources Canada (NRCAN), and external research partners to support the development of resource adequacy processes and tools. These processes and tools are planned to be made available to be applied in various regulatory, market, and system characteristic contexts, with case studies demonstrating their effectiveness.

PA continues to oversee and evaluate reliability trends that identify reliability risks by analyzing generating and transmission availability data, along with reliability metrics and protection and controls system misoperations data. PA is currently expanding the generating data trend analysis and has begun reflecting post-seasonal reliability review, insights from analysis of generating and transmission availability data, and integration of event analysis and misoperations. Additionally, PA is developing reporting requirements for solar and associated energy storage data collection.

Also in support of Focus Areas 2 and 4 of the *ERO Enterprise Long-Term Strategy*, the PSA and ASAM group is focusing on:

- Developing technical analyses in key reliability areas, resulting in comprehensive reports addressing areas of concern (e.g., frequency response, short circuit strength, inter-area oscillation, DER integration, and systemic interdependencies, such as gas/electric and communications/electric). The purpose of these technical analyses is to understand and evaluate BPS characteristics, behavior, and performance due to the changing resource mix and integration of new technology, thereby providing guidance and technical expertise to address key planning-related issues and Interconnection-wide concerns;
- Continuing to explore the use of state-of-the-art software to conduct power system analysis by enhancing the use of real-time tools used by the industry to sharpen and fine-tune models as the system evolves with the integration of new technology;
- Conducting detailed forensic analyses of significant system disturbances;
- Providing technical expertise, research, and feedback to the industry, including those that support development of key reliability planning-related standards;
- Providing industry insight related to modeling improvements and interconnection-wide system analysis through a State of Modeling report, with recommendations for enhancement and industry engagement;

- In coordination with the IRPTF, performing event analyses, investigating abnormal performance of inverter-based resources, particularly solar photovoltaic, and developing industry recommendations and addressing potential reliability gaps;
- Supporting industry in the reliable integration of increased levels of DER, providing industry technical guidance on key reliability impacts and developing recommended practices and guidelines (modeling, planning, and operations) to ensure BPS reliability;
- Supporting industry adoption and advancement of synchrophasor technology through the Synchronized Measurement Subcommittee (SMS) and studying interconnection-wide oscillatory behavior (and other interconnection-wide phenomena) through PMU data collected from RCs;
- Supporting industry understanding and expertise in power plant modeling through the System Analysis and Modeling Subcommittee's (SAMS's) Power Plant Modeling and Verification Task Force (PPMVTF), advancing capabilities to perform a disturbance based model verification, working with software vendors, and supporting implementation of MOD-026-1 and MOD-027-1;
- Driving improvements of dynamic load modeling capabilities in support of industry stability studies for planning and real-time reliability assessments, advancing state-of-the-art modeling capability across North America, and supporting the SAMS's Load Modeling Task Force (LMTF);
- Supporting studies and technical positions on the changing nature of end use loads, advocating for grid-friendly load behavior, and engaging with industries collaboratively, working with utility members, to represent BPS needs;
- Performing annual assessments of case quality and fidelity on the interconnection-wide cases released by the MOD-032 designees and developing a feedback loop mechanism with the MOD-032 designees to instigate improvements to models;
- Proactively addressing deficiencies in interconnection-wide models and providing industry education on key modeling topics (e.g., generic model notifications for wind, solar, battery) as identified by NERC or industry;
- Providing a report of results from a Composite Reliability Study using probabilistic—or near probabilistic—methods for transmission as well as resources;
- Supporting a Battery Storage Assessment using the Joint WECC/NERC Battery Study of the Western Interconnection to determine the adequacy of battery energy injection to support frequency response and primary frequency reserve margin, etc.; and
- Conducting advanced statistical studies in support of the Standards Efficiency Review and the SOR report.

2022 Goals and Deliverables

In 2021, the groups discussed above will continue the efforts described above as applicable, with particular focus on risk issues identified in the latest RISC report. The groups will focus on various assessments and technical reports under the direction of the RSTC. High risk issues include:

- Unacceptable inverter performance
- Increased amounts of DER
- Energy sufficiency
- Extreme weather resilience
- Cyber security in planning and operations

As the grid evolves, the ability to collect and the quality and integration of data becomes increasingly important, requiring continued investment in enhancements to and maintenance of NERC’s suite of data management tools. Enhancements and modifications to the following software applications are expected:

- An enhanced system to manage reliability assessment data is envisioned to support the ERO’s RA process by streamlining data reporting, analysis, and storage. The system would benefit reliability by establishing a program of record to meet the needs of the ERO’s RA functions. Funding in 2022 provides for requirements building for improving this system.
- Funding in 2022 for the systems for conventional generating availability data and transmission availability data provides for continued enhancements, particularly to implement the proposed Section 1600 data request changes for conventional generating availability data. Changes to the data request are expected to be released for public comment in July 2021, with a portion focusing on gathering key data to support trending analysis of unit design.
- The Section 1600 data request for generating availability data that was released for public comment in June 2021 includes a new request for mandatory utility-scale solar reporting for solar plants that have an installed capacity of 20 MW or greater. The data request also includes major changes to current wind reporting, including event reporting, shared resources with solar reporting, a user interface, validations, and reports. The 2022 budget provides for the development of a system for generating availability data for solar and a rewrite of this system for wind. Some common features will exist, allowing for potential economies of scale.

Future Plans

In 2023 and beyond, NERC will continue to build and maintain the analytical capabilities needed to support the reliability and security of the changing grid. This will include implementing data collection applications to include solar reporting as well as integrating energy storage with the solar and wind facilities, security assessment and design basis, and developing a strategic plan to re-platform data collection applications to create better integration of collection efforts and analysis for the ERO Enterprise. These shared analytics, data warehouses, and tools advance the capabilities and credibility of the ERO as a trusted source for reliability and security assessment information and decision-making guidance. In addition, these capabilities provide industry and other stakeholders with important information to assist them in ensuring reliability in light of the unprecedented changes in the character and composition of the BPS.

Resource Requirements

Personnel

The increase of 0.94 FTEs reflects the addition of two positions, one for ASAM and one for SGT, to support increased analytics related to grid transformation, planning and cyber awareness, and incorporation of cyber security into system models. The increase is offset by a reallocation of one open position to Reliability Standards to realign staff with current needs.

Consultants and Contracts

The increase of \$278k for Consultants & Contracts from the 2021 budget to the 2022 budget is primarily a result of a measured return to consulting work reduced or deferred in 2021 due to cost savings efforts, as well as support for the studies and partnerships discussed above. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Fixed Asset Additions

The Fixed Asset budget for 2022 includes \$475k for the data system enhancements discussed above.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions 2021 Budget & Projection, and 2022 Budget Reliability Assessment and Performance Analysis					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 12,538,528	\$ 12,538,528	\$ -	\$ 14,700,555	\$ 2,162,027
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 12,538,528	\$ 12,538,528	\$ -	\$ 14,700,555	\$ 2,162,027
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	60,000	60,000	-	60,000	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	32,908	550	(32,358)	14,527	(18,381)
Total Funding (A)	\$ 12,631,436	\$ 12,599,078	\$ (32,358)	\$ 14,775,082	\$ 2,143,646
Expenses					
Personnel Expenses					
Salaries	\$ 3,830,459	\$ 3,732,279	\$ (98,180)	\$ 4,377,751	\$ 547,292
Payroll Taxes	244,412	228,850	(15,562)	272,752	28,340
Benefits	622,466	517,022	(105,444)	637,359	14,893
Retirement Costs	425,191	409,771	(15,420)	485,536	60,345
Total Personnel Expenses	\$ 5,122,528	\$ 4,887,922	\$ (234,606)	\$ 5,773,397	\$ 650,869
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 168,856	\$ 6,025	\$ (162,831)	\$ 180,000	\$ 11,144
Travel	199,429	56,979	(142,450)	207,000	7,571
Total Meetings & Travel Expenses	\$ 368,285	\$ 63,004	\$ (305,281)	\$ 387,000	\$ 18,715
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 403,203	\$ 548,260	\$ 145,057	\$ 681,227	\$ 278,024
Office Rent	-	-	-	-	-
Office Costs	655,950	661,725	5,775	640,675	(15,275)
Professional Services	-	-	-	-	-
Miscellaneous	4,600	5,400	800	4,600	-
Total Operating Expenses, excluding Depreciation	\$ 1,063,753	\$ 1,215,384	\$ 151,631	\$ 1,326,502	\$ 262,749
Total Direct Expenses	\$ 6,554,566	\$ 6,166,310	\$ (388,256)	\$ 7,486,899	\$ 932,333
Indirect Expenses	\$ 5,873,428	\$ 5,951,560	\$ 78,132	\$ 6,554,863	\$ 681,435
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 12,427,994	\$ 12,117,870	\$ (310,124)	\$ 14,041,762	\$ 1,613,768
Change in Net Assets (=A-B)	\$ 203,442	\$ 481,207	\$ 277,766	\$ 733,320	\$ 529,878
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 118,866	\$ 78,082	\$ (40,784)	\$ 1,005,478	\$ 886,611
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (18,010)	\$ (32,816)	\$ (14,806)	\$ (387,479)	\$ (369,469)
Loan or Financing Lease - Principal Payments (+)	102,585	100,467	(2,118)	115,321	12,736
Net Financing Activity (D)	\$ 84,575	\$ 67,651	\$ (16,924)	\$ (272,158)	\$ (356,733)
Total Budget (=B+C+D)	\$ 12,631,436	\$ 12,263,603	\$ (367,833)	\$ 14,775,082	\$ 2,143,646
Change in Working Capital (=A-B-C-D)	\$ -	\$ 335,474	\$ 335,474	\$ -	\$ -
FTEs	25.38	22.96	(2.42)	26.32	0.94

Situation Awareness

Situation Awareness (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	6.58	7.52	0.94
Direct Expenses	\$ 2,674,692	\$ 3,022,490	\$ 347,798
Indirect Expenses	1,604,603	1,872,818	268,216
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	148,541	259,065	110,524
Financing Activity	23,153	(77,759)	(100,913)
Total Budget	\$ 4,450,989	\$ 5,076,614	\$ 625,625

Background and Scope

NERC's Situation Awareness group and the REs monitor BPS conditions, significant occurrences and emerging risks, and threats across the 17 RC regions in North America to maintain an understanding of conditions and situations that could impact reliable operation. This group also supports the development and publication of NERC Alerts and awareness products and facilitates information sharing among industry, the REs, and the government during crisis situations and major system disturbances. The process for understanding the potential threats or vulnerabilities to BPS reliability starts with understanding occurrences and events in the context in which they occur.

Stakeholder Engagement and Benefit

BPS conditions continually change and provide recognizable signatures through automated tools, mandatory reports and voluntary information sharing, and third-party publicly available sources. The significant majority of these signatures represents conditions and occurrences that have little or no reliability impact, either positive or adverse, on the BPS. However, being cognizant of the short-term condition of the BPS and the signatures associated with the entire range of reliability performance helps the ERO identify significant occurrences more accurately and efficiently. Registered entities continue to robustly share information and collaborate with the ERO to maintain and improve overall reliability.

The Situation Awareness group assists the RSTC's Real-Time Operating Subcommittee (RTOS) in enhancing BPS reliability with their efforts to provide operational guidance to the industry by managing NERC-sponsored technology tools and services that support operational coordination, and by providing technical support and advice as requested.

Tools and Technology

The group uses and supports tools related to the following Situation Awareness activities:

- **Resource Adequacy (Area Control Error [ACE] Frequency)** – Continuously monitors key resource adequacy performance metrics, including pre-established thresholds and limits defined in standards, providing alerts to RCs and resource subcommittees to conditions that could result in critical inadequacies, such as major tie errors, inaccurate load forecasts, and inadequate frequency response.
- **Inadvertent Interchange** – Facilitates the entering of monthly scheduling data and submittal of monthly inadvertent performance standards reports to NERC and assists in the monitoring and resolution of reliability issues originated by inadvertent interchange imbalances.

- **Frequency Monitoring Network** – Global positioning system (GPS)-synchronized wide-area frequency measurement network that uses high dynamic accuracy frequency disturbance recorders to measure the frequency, phase angle, and voltage of the power system at ordinary 120V outlets.
- **Intelligent Alarms** – Detects short-term and long-term frequency deviations using data transmitted to NERC by the BAs. When coupled with the Frequency Monitoring Network, allows immediate differentiation of the cause of a frequency deviation—a generator trip or a scheduling error.
- **PowerIQ and Power RT** – Provides more detailed insight into current-day conditions impacting BPS conditions in both normal operations and stressed conditions.
- **Situation Awareness tool** – Provides near real-time information about the current operating conditions of the BPS and valuable information from a wide-area view about BPS impacts from hurricanes, hot and cold weather extremes, and varying system conditions.
- **RC Information System** – Allows RCs to post messages and share operating information in real time.
- **NERC Alerts** – Enables NERC to issue alerts to registered entities and the electricity sector when NERC discovers, identifies, or is provided with information that is critical to ensuring the reliability of the BPS.
- **Data collection and analysis tools** – Supports overall data collection and analysis related to Resource Adequacy and Intelligent Alarms and eventual receipt and consumption of streaming synchrophasor data in near real time.

Key Efforts Underway

In support of Focus Areas 2 and 4 of the *ERO Enterprise Long-Term Strategy*, Situation Awareness is focusing on the following priorities and ongoing activities:

- Ensuring that the ERO is aware of all BES events above a threshold of impact;
- Grid transformation (e.g., expansion of variable and distributed energy resources and integration of digital controls and new technologies);
- Extreme natural events;
- Security vulnerabilities (both cyber and physical);
- Enabling the sharing of information and data to facilitate wide-area situational awareness;
- Facilitating the exchange of information among industry, the Regional Entities, and the U.S. and Canadian governments during crisis situations;
- Keeping industry informed of emerging reliability threats and risks, including any expected actions;
- Administering the NERC Alerts process as specified in ROP Section 810 to issue Advisory (Level 1) Alerts on significant and emerging reliability and security-related topics as needed, and facilitate the tracking of actions specified in Recommendation (Level 2) and Essential Action (Level 3) Alerts;
- Continuing to set the conditions to bring in limited streaming synchrophasor data for wide-area situational awareness and event triage applications; and
- Looking at the importance of having visibility and understanding of the reliability or availability of natural gas and its interdependency with electrical generation.

The Situation Awareness group is continuing to focus on enhancements to its recently upgraded situation awareness application. The new platform allows users to have a more robust tool to increase situation awareness and the sharing of information with E-ISAC, FERC, and the REs and has more functionality and automatic model updates, weather overlays, fire data, and allows users to integrate gas data. The upgrade also allows for rapid and accurate situational awareness that appropriately protects the proprietary information in the tool while maximizing the value of understanding shared to the right audiences. Further, the enhanced tool incorporates functionality elements piloted during GridEx IV that will enable the Situation Awareness group to provide the E-ISAC and the ESCC with more timely and understandable common operating picture information. NERC is also implementing a disaster recovery site for this situation awareness tool, which will augment the redundancy inherent to the primary site's application architecture by hosting a second instance of the application in NERC's data center.

2022 Goals and Deliverables

In 2022, the Situation Awareness group will continue to execute the activities discussed above, including continued focus on the situation awareness tool enhancements and the implementation of the disaster recovery site. Additional 2022 plans include (1) examining the importance of having visibility to natural gas situational awareness through enhancing understanding of the tools and methods that are and will be available to monitor natural gas availability, transmission, and distribution across the BES and (2) working with the E-ISAC to increase situational awareness related to physical security.

Future Plans

In 2023 and beyond, efforts related to natural gas and physical security situational awareness will continue. The Situation Awareness group is also evaluating needed upgrades to or replacements of RCIS and the Resource Adequacy Tool.

Resource Requirements

Personnel

The increase of 0.94 FTEs from the 2021 budget to the 2022 budget is the result of a resource reallocation to Situation Awareness from Event Analysis to realign staff with current needs.

Consultants and Contracts

The \$15k for Consultants & Contracts in the 2022 budget is for data collection and analysis software enhancements. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Office Costs

The \$84k increase for Office Costs from the 2021 budget to the 2022 budget is primarily due to the addition of software hosting and support costs for the situation awareness tool disaster recovery site discussed above as well as annual software license and support escalation assumptions for the suite of Situation Awareness tools.

Fixed Asset Additions

The Fixed Asset budget includes approximately \$82k for two thirds of the situation awareness tool enhancement costs, with the remaining investment budgeted in the E-ISAC fixed asset budget.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Situation Awareness					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 4,441,980	\$ 4,441,980	\$ -	\$ 5,072,463	\$ 630,484
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 4,441,980	\$ 4,441,980	\$ -	\$ 5,072,463	\$ 630,484
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	9,009	164	(8,845)	4,150	(4,859)
Total Funding (A)	\$ 4,450,989	\$ 4,442,144	\$ (8,845)	\$ 5,076,614	\$ 625,625
Expenses					
Personnel Expenses					
Salaries	\$ 993,129	\$ 1,114,227	\$ 121,098	\$ 1,227,161	\$ 234,032
Payroll Taxes	65,048	66,946	1,898	76,087	11,039
Benefits	268,930	236,522	(32,407)	258,757	(10,173)
Retirement Costs	111,336	114,507	3,171	134,973	23,636
Total Personnel Expenses	\$ 1,438,443	\$ 1,532,203	\$ 93,760	\$ 1,696,978	\$ 258,535
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 66,310	\$ 36,500	\$ (29,810)	\$ 70,000	\$ 3,690
Travel	20,774	5,935	(14,839)	22,000	1,226
Total Meetings & Travel Expenses	\$ 87,084	\$ 42,435	\$ (44,649)	\$ 92,000	\$ 4,916
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 15,000	\$ 15,000	\$ -	\$ 15,000	\$ -
Office Rent	-	-	-	-	-
Office Costs	1,133,065	1,198,313	65,248	1,217,412	84,347
Professional Services	-	-	-	-	-
Miscellaneous	1,100	1,100	-	1,100	-
Total Operating Expenses, excluding Depreciation	\$ 1,149,165	\$ 1,214,413	\$ 65,248	\$ 1,233,512	\$ 84,347
Total Direct Expenses	\$ 2,674,692	\$ 2,789,051	\$ 114,359	\$ 3,022,490	\$ 347,798
Indirect Expenses	\$ 1,604,603	\$ 1,773,026	\$ 168,423	\$ 1,872,818	\$ 268,216
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 4,279,294	\$ 4,562,077	\$ 282,782	\$ 4,895,308	\$ 616,014
Change in Net Assets (=A-B)	\$ 171,694	\$ (119,933)	\$ (291,627)	\$ 181,306	\$ 9,611
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 148,541	\$ 155,761	\$ 7,220	\$ 259,065	\$ 110,524
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (4,930)	\$ (9,776)	\$ (4,846)	\$ (110,708)	\$ (105,778)
Loan or Financing Lease - Principal Payments (+)	28,084	29,930	1,846	32,949	4,865
Net Financing Activity (D)	\$ 23,153	\$ 20,153	\$ (3,000)	\$ (77,759)	\$ (100,913)
Total Budget (=B+C+D)	\$ 4,450,989	\$ 4,737,991	\$ 287,003	\$ 5,076,614	\$ 625,625
Change in Working Capital (=A-B-C-D)	\$ -	\$ (295,847)	\$ (295,847)	\$ -	\$ -
FTEs	6.58	6.84	0.26	7.52	0.94

Event Analysis

Event Analysis (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	7.52	6.58	(0.94)
Direct Expenses	\$ 2,389,731	\$ 2,018,854	\$ (370,877)
Indirect Expenses	1,833,832	1,638,716	(195,116)
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	37,190	192,619	155,430
Financing Activity	26,461	(68,040)	(94,501)
Total Budget	\$ 4,287,213	\$ 3,782,150	\$ (505,063)

Background and Scope

The Event Analysis group performs assessments of the reliability and adequacy of the BES. This includes identifying potential issues of concern related to system, equipment, entity, and human performance that may indicate a need to develop remediation strategies, action plans, or data used to revise, retire, or consider new Reliability Standards. The group analyzes and determines the cause of the events, promptly ensures tracking of corrective actions, and provides lessons learned for industry consumption. Event Analysis ensures that reporting and analysis are consistent to allow wide-area assessment of trends and risks. The group analyzes all voluntarily reportable events for sequence of events, root cause, risk to reliability, and mitigation, and keeps the industry well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions.

Resources within this group focus on identifying human-error risks and those precursor factors that allow human error to impact system reliability. The group educates industry regarding risks, precursors, and mitigation methods. Resources also support compliance and Reliability Standards training initiatives and trending and analysis to identify emerging reliability risks. These efforts are conducted in collaboration with industry human performance projects, including those of ERO Enterprise human performance groups, the RSTC's Event Analysis Subcommittee (EAS), and other partners.

Stakeholder Engagement and Benefit

The Event Analysis group coordinates the use of collective resources, consistency in analysis, and timely delivery of event analysis reports as per the [ERO Event Analysis Process](#). The ERO disseminates lessons learned and other useful information to the electric industry obtained from or as a result of event analysis. The Event Analysis team conducts in-depth analyses on the order of 150 events per year on average. The team also conducts calls facilitated by the REs with over 140 registered entities to discuss in detail and finalize root and contributing causes for the categorized events analyzed each year. Major analysis to date includes continuing assessment of EMS outages, continued collaboration with the RAPA groups on frequency response performance, analyses of substation equipment failure events, and protective relay trends, including ground overcurrent relay misoperations, relay communication system failures, and the importance of commissioning testing. Additionally, substantial work and analysis is being done in the area of inverters and inverter technologies.

Tools and Technology

Event Analysis uses an Event Analysis data management system to track and process records originating from the EOP-004 reporting, OE-417 reporting, Event Analysis, and the ERO Cause Code Assignment processes. Relevant reports are recorded, uploaded, and tied together into a single event. The data is used

to fuel event cause coding, general system performance analysis, and key performance indicators. Maintenance and incremental improvements to the existing database are the current priorities. Future upgrades are being informed by in-house prototyping efforts to improve data manipulation. The focus is on tools and methods to support more flexible and nimble analytics.

Key Efforts Underway

In support of Focus Areas 2 and 4 of the *ERO Enterprise Long-Term Strategic Plan*, Event Analysis focus areas and ongoing activities include:

- Work with the REs to obtain and review information from registered entities on qualifying events and disturbances to advance awareness of events above a threshold level; facilitate analysis of root and contributing causes, risks to reliability, wide-area assessments, and remediation efforts; and disseminate information regarding events in a timely manner.
- Ensure that all reportable events are analyzed for sequence of events, root cause, risk to reliability, and mitigation.
- Continue to refine risk-based methods to support better identification of reliability risks, including the use of more sophisticated cause codes for analysis.
- Conduct events (webinars, workshops, and conference support) to inform industry and the ERO of lessons learned, root cause analysis, trends, human performance, and extreme weather preparedness and recommendations, including events like the annual NERC Monitoring and Situational Awareness Conference and annual Electric Power Human Performance Improvement Symposium.
- Develop reliability recommendations and alerts as needed and track industry accountability for critical reliability recommendations.
- Ensure that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions.
- Conduct major event analysis and reporting of major findings and recommendations that will improve reliability.

The Event Analysis department also supports several of the top-priority reliability risk projects as identified and described in the *Reliability Assessment and Performance Analysis* section.

2022 Goals and Deliverables

In addition to continuing the activities described above, in 2022 the Event Analysis group will continue to update/upgrade data collection and storage capabilities and capacity for its data management system. Additionally, the Event Analysis and PA groups will work to improve the linkage between performance and event analysis data in an effort to enhance the ability to conduct event analyses, as well as to identify key areas for trend analyses across multiple databases. The Event Analysis group will also lead the planning and execution of human performance events like the annual ERO Enterprise and industry-wide Electric Power Human Performance Improvement Symposium and/or virtual sessions.

Future Plans

In 2023 and beyond, the Event Analysis group will continue to work to improve the depth of event analyses across the ERO Enterprise, including enhancing data collection abilities, data analysis tools, and capacity and integration with other database systems. The group will also work with industry leaders to provide education on human-error and performance topics to improve human-system interaction on the BES going forward.

Resource Requirements

Personnel

The decrease of 0.94 FTEs is related to a repurposing of a position that was previously budgeted in the Event Analysis department for organizational structure purposes and is being reallocated to the Situation Awareness group to realign staffing with current needs. The core resources for and investments in the Event Analysis program remain the same as 2021.

Consultants and Contracts

The \$118k for Consultants & Contracts in the 2022 budget includes support and maintenance for the Event Analysis data management system and Event Analysis review augmentation. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Fixed Asset Additions

The 2022 Fixed Asset budget includes \$60k for Event Analysis data management system enhancements as well as data integration efforts with other ERO data management systems.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Event Analysis					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 4,276,917	\$ 4,276,917	\$ -	\$ 3,778,518	\$ (498,398)
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 4,276,917	\$ 4,276,917	\$ -	\$ 3,778,518	\$ (498,398)
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	10,296	162	(10,134)	3,632	(6,664)
Total Funding (A)	\$ 4,287,213	\$ 4,277,079	\$ (10,134)	\$ 3,782,150	\$ (505,063)
Expenses					
Personnel Expenses					
Salaries	\$ 1,630,745	\$ 1,305,549	\$ (325,197)	\$ 1,297,758	\$ (332,987)
Payroll Taxes	85,892	78,933	(6,960)	73,630	(12,263)
Benefits	218,265	198,069	(20,196)	205,684	(12,581)
Retirement Costs	179,177	148,204	(30,973)	145,524	(33,653)
Total Personnel Expenses	\$ 2,114,080	\$ 1,730,754	\$ (383,325)	\$ 1,722,596	\$ (391,484)
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 18,930	\$ 10,000	\$ (8,930)	\$ 35,000	\$ 16,070
Travel	89,031	25,437	(63,594)	91,000	1,969
Total Meetings & Travel Expenses	\$ 107,961	\$ 35,437	\$ (72,524)	\$ 126,000	\$ 18,039
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 115,590	\$ 117,680	\$ 2,090	\$ 118,158	\$ 2,568
Office Rent	-	-	-	-	-
Office Costs	50,500	48,239	(2,261)	50,500	-
Professional Services	-	-	-	-	-
Miscellaneous	1,600	1,600	-	1,600	-
Total Operating Expenses, excluding Depreciation	\$ 167,690	\$ 167,519	\$ (171)	\$ 170,258	\$ 2,568
Total Direct Expenses	\$ 2,389,731	\$ 1,933,710	\$ (456,020)	\$ 2,018,854	\$ (370,877)
Indirect Expenses	\$ 1,833,832	\$ 1,754,881	\$ (78,951)	\$ 1,638,716	\$ (195,116)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 4,223,562	\$ 3,688,591	\$ (534,971)	\$ 3,657,570	\$ (565,992)
Change in Net Assets (=A-B)	\$ 63,651	\$ 588,488	\$ 524,837	\$ 124,580	\$ 60,929
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 37,190	\$ 23,023	\$ (14,166)	\$ 192,619	\$ 155,430
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (5,635)	\$ (9,676)	\$ (4,041)	\$ (96,870)	\$ (91,235)
Loan or Financing Lease - Principal Payments (+)	32,096	29,623	(2,472)	28,830	(3,265)
Net Financing Activity (D)	\$ 26,461	\$ 19,947	\$ (6,514)	\$ (68,040)	\$ (94,501)
Total Budget (=B+C+D)	\$ 4,287,213	\$ 3,731,562	\$ (555,651)	\$ 3,782,150	\$ (505,063)
Change in Working Capital (=A-B-C-D)	\$ -	\$ 545,517	\$ 545,517	\$ -	\$ -
FTEs	7.52	6.77	(0.75)	6.58	(0.94)

Electricity Information Sharing and Analysis Center

E-ISAC (including CRISP) (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	39.48	43.95	4.47
Direct Expenses	\$ 20,100,328	\$ 21,134,114	\$ 1,033,786
Indirect Expenses	9,315,576	10,944,281	1,628,704
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	271,624	976,958	705,334
Financing Activity	134,209	(454,407)	(588,616)
Total Budget	\$ 29,821,738	\$ 32,600,947	\$ 2,779,209

Background and Scope

In 2017 the E-ISAC, with guidance from the Electricity Subsector Coordinating Council (ESCC) Member Executive Committee (MEC), the NERC Board, and various trade associations and stakeholder groups, developed a long-term strategic plan to better define its mission and focus its resources in helping the electric sector protect itself from escalating cyber and physical security risks. The E-ISAC strategic plan has three primary areas of focus—engagement, information sharing, and analysis. The strategic plan embraces the ongoing need to review priorities under each focus area, ensure alignment between priorities, optimize resource allocation, and establish metrics to measure progress. The central underpinning of the strategic plan is for the E-ISAC to focus on providing timely and actionable information and analysis to industry regarding cyber and physical security threats and mitigation strategies. To advance this important objective, the strategic plan also recognizes the critical interdependencies between the E-ISAC, industry, U.S. and Canadian government agencies, and other stakeholders. In 2020, the strategic plan was reviewed and validated in terms of the primary focus areas. Additionally, the opportunity was taken to identify priority initiatives in the areas of operational technology risk, automated information sharing, and improved operational effectiveness.

The E-ISAC also oversees the Cybersecurity Risk Information Sharing Program (CRISP), a unique public-private initiative among the E-ISAC, the North American electric utility industry, DOE, and the U.S. Intelligence Community that delivers real-time, relevant, and actionable cyber security risk information to all E-ISAC member electricity asset owners and operators, including those from Canada and Mexico. The program leverages subject matter expertise and resources from the E-ISAC, DOE, Pacific Northwest National Laboratory (PNNL), and the Argonne National Laboratory. Using passive information sharing devices (ISD) on participant networks outside boundary firewalls, participant data is collected and then matched against known threat signatures—classified and unclassified—to identify potential threats and provide participants with recommended mitigation steps. Aggregated indicators of compromise and other relevant security information are shared with all E-ISAC members, regardless of participation in CRISP.

PNNL is the primary subcontractor to NERC in connection with the provision of CRISP services to participating utilities. PNNL is a U.S. DOE National Laboratory, operated by Battelle with oversight by the DOE. PNNL is responsible for the deployment of the required technology, supporting infrastructure, analysis, and technical capabilities for CRISP.

The CRISP budget includes two major categories of expense: (1) costs funded fully by CRISP participants (i.e., participant-paid-only costs), which include the contract with PNNL, the annual security review, and

any additional programs agreed to be funded exclusively by CRISP participants; and (2) operational and administrative program costs, which are funded 50% by participants and 50% by NERC assessments. These operational and administrative expenses include dedicated personnel for CRISP program management and administration, as well as time allocated from E-ISAC staff for data analysis. For the 2022 CRISP budget this equates to 3.94 FTEs, as shown on the “CRISP Only” Statement of Activities (SOA) report on page 58. The remaining operational and administrative expenses include hardware and software, other office costs, insurance, professional services, meetings and travel, and indirect cost allocations.

The participant-paid-only costs make up the majority of the CRISP budget, particularly the PNNL contract. For 2022, the total participant-paid-only costs for the CRISP budget is approximately \$7.6M, of which \$5.7M is for the contract with PNNL. These participant-paid-only costs as well as 50% of the CRISP operational and administrative expenses that are paid by CRISP participants are shown on the “Third-Party Funding” line of the “CRISP Only” SOA report on page 53. Also for 2022, CRISP is anticipating to collect an additional \$300k of revenue from participants to increase funds in the CRISP operating reserve (subject to final approval of CRISP members), bringing the total “Third-Party Funding” line to \$7.9M. Funding for the remaining 50% of CRISP operational and administrative costs (less additional funding from interest and investment income) is shown on the “NERC Assessments” line of the “CRISP Only” SOA report.

Stakeholder Engagement and Benefit

Active engagement of members (electricity industry asset owners and operators) and partners (government and other security organizations) expands the breadth of information sources, leverages cross-sector security expertise, and increases the use of shared information. Electric power industry members are the defenders of critical electricity infrastructure and the collection and dissemination of timely and actionable security-related information is a key component of that defense. Therefore, successful engagement with electric industry members and other stakeholders is vital to cyber and physical security risk identification, sharing, analysis, and mitigation.

To this end, in 2020 the E-ISAC increased organizational membership by 31% across both member and partner organizations with a 57% increase in E-ISAC Portal users. Improved process efficiency enabled by customer relationship management (CRM) technology, leveraging industry trade organizations, establishment of a Designated Approving Official (DAO) role for each member organization, and a tighter tie with participation in the upcoming GridEx VI contributed to this increase.

Tools and Technology

The primary technologies and tools used in support of the E-ISAC’s operations include:

- The E-ISAC Portal
- Technology funded and supported as part of CRISP
- An E-ISAC data platform
- Industry critical broadcast program (CBP) communication capability
- Incident (case) management and threat intelligence tools
- Various third-party physical and cyber security sharing information services
- A CRM system
- Survey tools and virtual event hub and delivery tools
- Secure text communications for facilitating threat communications among members
- Email, document sharing, and on-line collaboration tools

- Basic data storage and technology infrastructure on premise, in leased data centers, and via various cloud service providers.

Key Efforts Underway

During 2020, despite unprecedented challenges from a global pandemic, closure of offices and a move to a remote work force, and the Solar Winds cyber supply chain compromise, the E-ISAC took steps to improve the efficiency and effectiveness of operations. In support of Focus Areas 3, 4, and 5 of the *ERO Enterprise Long-Term Strategy*, leadership was strengthened and an around-the-clock integrated watch operations team was established. E-ISAC authored and posted 1,195 information shares to the E-ISAC Portal in 2020. This was an increase of over 50% from 2019, with an average of over 120 posts per month for the last three months of 2020. Increased information sharing from members and partners, investments in new third-party security information sharing services, increased staff focus, and the 24x7 watch operations staff all contributed to this increase. Consistent sharing of original and partner-provided analytical tools such as Argonne National Lab’s Protective Measures Index (PMI) tool and associated training was also established. In addition, a performance management group was created to oversee the implementation of process improvements, technology, and metrics to improve the quality, timeliness, and value of information sharing, data management, and analysis. Recent E-ISAC accomplishments include:

- Establishing 24x7 watch operations;
- Initiation of the CRISP OT pilots with Dragos and further planning with DOE on the Essence OT pilot project;
- Supporting U.S. government initiatives, including the Cyberspace Solarium Commission and the National Infrastructure Advisory Council (NIAC);
- Implementing the E-ISAC data platform;
- Increasing information sharing with members and government partners by 57%;
- Operating a CBP to quickly disseminate information regarding imminent threats and other important notifications;
- Transition of new member/partner on-boarding and the case management processes to the Salesforce CRM system and initiation of the effort to migrate the E-ISAC Portal to Salesforce;
- Increasing member/partner membership by 31% within the United States and Canada across all major industry trade groups;
- Operating the industry-supported Physical Security Advisory Group (PSAG), a two-year action plan to expand physical security risk identification, risk mitigation, and preparedness;
- Heightened role and leadership provided to the ESCC and ESCC Tiger Teams;
- Completion of a prototype and discovery task force effort for automated information sharing;
- Entering into detailed collaboration agreements with the Ontario Independent Electricity System Operator (IESO), the Downstream Natural Gas ISAC (DNG-ISAC) and the Multi-State ISAC (MS-ISAC);
- Conducting events such as GridEx and the annual Grid Security Conference (GridSecCon); and
- Further strengthening E-ISAC’s talent pool and analytic capabilities, including both cyber and physical security expertise.

As part of management’s planning efforts for 2021 and 2022, and taking into account feedback from the Board, MEC, members and other stakeholders, E-ISAC leadership assessed progress to date, re-confirmed operating and strategic priorities, and identified both gaps and opportunities to further improve products, services and, ultimately, provide greater value to members. The following is a summary of actions the E-ISAC will be undertaking to address these gaps and opportunities.

The primary focus of the E-ISAC over the next two years will be improving the effectiveness and efficiency of current products, platforms, and services. These efforts support Focus Area 5 of the *ERO Enterprise Long-Term Strategy* to capture effectiveness, efficiency, and continuous improvement opportunities. The E-ISAC will sharpen its focus and execution in building and maintaining membership by demonstrating value through improved analysis, timely sharing of actionable information, and collaboration with key government and strategic partners, while ensuring that E-ISAC operations are both effective and efficient. The primary long-term term focus areas of the E-ISAC over the next three to five years are to increase E-ISAC’s analytical capabilities; identify and share operational technology risks and risk mitigation strategies; better leverage classified and other critical threat and intelligence; and evaluate the issues and alternatives to extending services and capabilities to support the downstream natural gas sector. These efforts are directly aligned with the *ERO Enterprise Long-Term Strategy* Focus Area 3 objective to build a strong, E-ISAC-based security capability.

With this focus in mind, the following practices will be used to guide resource allocation and investments while ensuring alignment with the three primary focus areas under the E-ISAC strategic plan:

- Fostering an inclusive, stable, productive and effective work environment that attracts and maintains a diverse, talented, and action-oriented workforce;
- Aggressively pursuing initiatives that increase operational effectiveness;
- Prudently choosing resource intensive initiatives that expand the E-ISAC’s scope and avoiding or deferring those that disperse its focus; and
- Exploring opportunities to refine and increase the effectiveness and efficiency of resource use supporting security exercises (e.g., GridEx), conferences (e.g., GridSecCon), and other resource intensive activities.

2022 Goals and Deliverables

The E-ISAC remains focused on furtherance of the strategic efforts discussed above as 2022 marks the fifth year of the long-term strategy. Building on its existing foundation and current resources, the E-ISAC 2022 budget reflects a continued measured approach in strengthening the resources and technology required to support the three primary elements of the E-ISAC’s strategic plan—engagement, information sharing, and analysis.

Engagement

- Continuing to build and enrich the value of E-ISAC membership with a specific focus on increasing public power and small and medium sized utility engagement in partnership with trade organizations and in new E-ISAC services developed under the White House 100-day Industrial Control Systems (ICS) Cybersecurity Initiative action plan;
- Strengthening trusted source relationships in both the private sector and government;
- Enhancing engagement within the electricity industry in both the United States and Canada via resumed Industry Engagement Programs, GridSecCon, and increased collaboration with ERO regional offices; and

- Continuing to improve and mature security exercises by expanding and increasing the diversity of participation and developing and refining scenarios to provide meaningful and practical learning opportunities via GridEx VI.

Information Sharing

- Increasing the quality and volume of information shared with E-ISAC from industry, government partners, and trusted third parties (including information from classified sources);
- Strengthening the E-ISAC's capabilities for information sharing via E-ISAC Portal enhancements and pilot of the automated information sharing capability;
- Improving timeliness and actionable value of information shared from the E-ISAC to industry via a Priority Intelligence Requirements (PIR) process; and
- Continuing to operate the 24x7 watch operations in an effective, efficient, and responsive manner

Analysis

- Effectively collecting data and capturing new information sources via CRISP OT pilot and evaluating and expanding third party tools and data sources;
- Incorporating existing and new tools and techniques into the analysis process; and
- Strengthening analytical capabilities through strategic relationships and hiring, developing, and retaining qualified staff.

Future Plans

For the long-term horizon (three to five years), the E-ISAC will focus on providing additional value to members and other stakeholders in four key areas:

1. Enhancing analytical capabilities, both internal and in partnership with third parties, while ensuring these enhancements provide value to members;
2. Working closely with the MEC working group, government, and industry partners to identify and share operational technology risks and risk mitigation strategies;
3. Enhancing capability to better leverage classified and other critical threat and intelligence information (both non-public governmental and private sector) to provide timely and actionable information to the sector regarding security risks; and
4. Conducting a detailed evaluation of the benefits, costs, governance, and funding issues and options for extending E-ISAC services and capabilities to support the downstream natural gas sector, given cross-sector interdependencies.

The E-ISAC will continue to evaluate partnership opportunities with the commercial sector, other ISACs, and government-sponsored research and development organizations. The E-ISAC will also work with stakeholders and government partners to evaluate the benefits, resource requirements, potential challenges, and risks associated with these initiatives, as well as in the formulation of appropriate program activities, budgets, and schedules through transparent resource planning and budget approval processes.

Resource Requirements

Personnel

The increase of 4.47 FTEs reflects the addition of four positions in E-ISAC, particularly related to increasing analytical capabilities and leveraging of threat intelligence and overall strategy execution and operations

management, and one in CRISP for OT program support. This is offset by the reallocation of one open position from E-ISAC to Administrative Programs in support of the People Strategy discussed in the *Introduction and Executive Summary*. The net FTE number also reflects a partial direct allocation of a project manager in IT in lieu of a contract resource.

Consultants and Contracts

Consultants & Contracts expenses for the E-ISAC 2022 budget, including CRISP, are approximately \$8.3M, which is a decrease of \$400k from 2021. Excluding CRISP, E-ISAC's Consultants & Contracts expenses are decreasing \$229k over 2021, primarily attributable to a contractor conversion to a NERC employee and use of a NERC IT project manager in lieu of a contract resource (offset by higher spending in personnel expenses) as well as a reduction in biennial GridEx expenses for the 2022 off-year. CRISP's Consultants & Contracts expenses are \$6.2M, which is \$172k less than the 2021 budget, predominantly due to the removal of OT program pilot support. This decrease offset by higher spending in personnel and an increase in PNNL costs for expenses related to new offerings and upgrades, a data backup location, and audit support. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

Office Costs

The \$385k increase for Office Costs for E-ISAC (including CRISP) from the 2021 budget to the 2022 budget is primarily related to software licenses, support, and maintenance costs for CRISP analytics and OT (much of which is participant-funded).

Fixed Asset Additions

The 2022 Fixed Asset budget for E-ISAC (including CRISP) includes approximately \$42k for one-third of the situation awareness tool enhancements costs (with the remaining two-thirds budgeted in Situation Awareness) and \$50k for equipment and hardware.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
E-ISAC (including CRISP)					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 22,673,035	\$ 22,673,035	\$ -	\$ 24,900,480	\$ 2,227,445
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 22,673,035	\$ 22,673,035	\$ -	\$ 24,900,480	\$ 2,227,445
Third-Party Funding	\$ 7,064,343	\$ 7,095,260	\$ 30,917	\$ 7,917,385	\$ 853,042
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	60,000	60,000	60,000	60,000
Interest & Investment Income	84,360	2,850	(81,510)	23,082	(61,278)
Total Funding (A)	\$ 29,821,738	\$ 29,831,145	\$ 9,407	\$ 32,900,947	\$ 3,079,209
Expenses					
Personnel Expenses					
Salaries	\$ 7,283,602	\$ 7,341,460	\$ 57,858	\$ 8,011,321	\$ 727,719
Payroll Taxes	413,208	448,927	35,720	480,111	66,903
Benefits	990,022	930,932	(59,090)	1,069,032	79,010
Retirement Costs	776,988	750,062	(26,926)	869,944	92,957
Total Personnel Expenses	\$ 9,463,819	\$ 9,471,381	\$ 7,562	\$ 10,430,408	\$ 966,589
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 82,812	\$ 92,000	\$ 9,188	\$ 102,000	\$ 19,188
Travel	214,268	61,220	(153,048)	222,000	7,732
Total Meetings & Travel Expenses	\$ 297,080	\$ 153,220	\$ (143,860)	\$ 324,000	\$ 26,920
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 8,725,641	\$ 9,398,582	\$ 672,941	\$ 8,325,861	\$ (399,780)
Office Rent	-	-	-	-	-
Office Costs	1,469,438	1,833,506	364,068	1,854,095	384,657
Professional Services	135,000	168,620	33,620	190,000	55,000
Miscellaneous	9,350	9,350	-	9,750	400
Total Operating Expenses, excluding Depreciation	\$ 10,339,429	\$ 11,410,058	\$ 1,070,629	\$ 10,379,706	\$ 40,277
Total Direct Expenses	\$ 20,100,328	\$ 21,034,659	\$ 934,331	\$ 21,134,114	\$ 1,033,786
Indirect Expenses	\$ 9,315,576	\$ 9,966,789	\$ 651,213	\$ 10,944,281	\$ 1,628,704
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 29,415,905	\$ 31,001,448	\$ 1,585,544	\$ 32,078,395	\$ 2,662,490
Change in Net Assets (=A-B)	\$ 405,833	\$ (1,170,303)	\$ (1,576,137)	\$ 822,551	\$ 416,718
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 271,624	\$ 246,009	\$ (25,615)	\$ 976,958	\$ 705,334
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (28,579)	\$ (54,955)	\$ (26,376)	\$ (646,952)	\$ (618,373)
Loan or Financing Lease - Principal Payments (+)	162,789	168,244	5,455	192,545	29,757
Net Financing Activity (D)	\$ 134,209	\$ 113,289	\$ (20,920)	\$ (454,407)	\$ (588,616)
Total Budget (=B+C+D)	\$ 29,821,738	\$ 31,360,747	\$ 1,539,009	\$ 32,600,947	\$ 2,779,209
Change in Working Capital (=A-B-C-D)	\$ -	\$ (1,529,601)	\$ (1,529,601)	\$ 300,000	\$ 300,000
FTEs	39.48	38.45	(1.03)	43.95	4.47

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
E-ISAC Only					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 21,577,172	\$ 21,577,172	\$ -	\$ 23,555,615	\$ 1,978,443
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 21,577,172	\$ 21,577,172	\$ -	\$ 23,555,615	\$ 1,978,443
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	60,000	60,000	60,000	60,000
Interest & Investment Income	48,360	850	(47,510)	22,082	(26,278)
Total Funding (A)	\$ 21,625,531	\$ 21,638,022	\$ 12,491	\$ 23,637,696	\$ 2,012,165
Expenses					
Personnel Expenses					
Salaries	\$ 6,608,091	\$ 6,665,414	\$ 57,324	\$ 7,160,834	\$ 552,744
Payroll Taxes	384,291	418,385	34,094	439,258	54,967
Benefits	912,362	814,438	(97,924)	933,864	21,502
Retirement Costs	726,065	694,959	(31,106)	800,898	74,833
Total Personnel Expenses	\$ 8,630,808	\$ 8,593,196	\$ (37,612)	\$ 9,334,855	\$ 704,046
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 75,240	\$ 90,000	\$ 14,760	\$ 90,000	\$ 14,760
Travel	192,901	55,115	(137,786)	200,000	7,099
Total Meetings & Travel Expenses	\$ 268,141	\$ 145,115	\$ (123,026)	\$ 290,000	\$ 21,859
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 2,399,918	\$ 2,482,645	\$ 82,727	\$ 2,171,041	\$ (228,877)
Office Rent	-	-	-	-	-
Office Costs	1,357,910	1,354,688	(3,222)	1,384,704	26,794
Professional Services	-	-	-	-	-
Miscellaneous	8,900	8,900	-	9,200	300
Total Operating Expenses, excluding Depreciation	\$ 3,766,728	\$ 3,846,233	\$ 79,505	\$ 3,564,945	\$ (201,783)
Total Direct Expenses	\$ 12,665,677	\$ 12,584,544	\$ (81,133)	\$ 13,189,800	\$ 524,122
Indirect Expenses	\$ 8,627,890	\$ 9,199,515	\$ 571,625	\$ 9,963,978	\$ 1,336,088
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 21,293,567	\$ 21,784,059	\$ 490,492	\$ 23,153,777	\$ 1,860,210
Change in Net Assets (=A-B)	\$ 331,964	\$ (146,037)	\$ (478,001)	\$ 483,919	\$ 151,954
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 207,678	\$ 161,943	\$ (45,735)	\$ 897,624	\$ 689,945
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (26,466)	\$ (50,724)	\$ (24,258)	\$ (589,003)	\$ (562,537)
Loan or Financing Lease - Principal Payments (+)	150,753	155,293	4,540	175,299	24,546
Net Financing Activity (D)	\$ 124,286	\$ 104,568	\$ (19,718)	\$ (413,705)	\$ (537,991)
Total Budget (=B+C+D)	\$ 21,625,531	\$ 22,050,570	\$ 425,039	\$ 23,637,696	\$ 2,012,165
Change in Working Capital (=A-B-C-D)	\$ -	\$ (412,548)	\$ (412,548)	\$ -	\$ -
FTEs	36.66	35.49	(1.17)	40.01	3.35

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
CRISP Only					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 1,095,863	\$ 1,095,863	\$ -	\$ 1,344,865	\$ 249,002
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 1,095,863	\$ 1,095,863	\$ -	\$ 1,344,865	\$ 249,002
Third-Party Funding	\$ 7,064,343	\$ 7,095,260	\$ 30,917	\$ 7,917,385	\$ 853,042
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	36,000	2,000	(34,000)	1,000	(35,000)
Total Funding (A)	\$ 8,196,207	\$ 8,193,123	\$ (3,084)	\$ 9,263,250	\$ 1,067,044
Expenses					
Personnel Expenses					
Salaries	\$ 675,511	\$ 676,046	\$ 535	\$ 850,486	\$ 174,975
Payroll Taxes	28,917	30,543	1,626	40,853	11,936
Benefits	77,660	116,493	38,833	135,168	57,508
Retirement Costs	50,923	55,104	4,181	69,046	18,124
Total Personnel Expenses	\$ 833,011	\$ 878,185	\$ 45,175	\$ 1,095,553	\$ 262,543
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 7,572	\$ 2,000	\$ (5,572)	\$ 12,000	\$ 4,428
Travel	21,367	6,105	(15,262)	22,000	633
Total Meetings & Travel Expenses	\$ 28,939	\$ 8,105	\$ (20,834)	\$ 34,000	\$ 5,061
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 6,325,723	\$ 6,915,937	\$ 590,214	\$ 6,154,820	\$ (170,903)
Office Rent	-	-	-	-	-
Office Costs	111,528	478,818	367,290	469,391	357,863
Professional Services	135,000	168,620	33,620	190,000	55,000
Miscellaneous	450	450	-	550	100
Total Operating Expenses, excluding Depreciation	\$ 6,572,701	\$ 7,563,825	\$ 991,124	\$ 6,814,761	\$ 242,060
Total Direct Expenses	\$ 7,434,651	\$ 8,450,115	\$ 1,015,465	\$ 7,944,314	\$ 509,664
Indirect Expenses	\$ 687,687	\$ 767,274	\$ 79,587	\$ 980,303	\$ 292,616
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 8,122,338	\$ 9,217,389	\$ 1,095,052	\$ 8,924,618	\$ 802,280
Change in Net Assets (=A-B)	\$ 73,869	\$ (1,024,266)	\$ (1,098,135)	\$ 338,633	\$ 264,764
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 63,946	\$ 84,066	\$ 20,120	\$ 79,335	\$ 15,389
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (2,113)	\$ (4,231)	\$ (2,118)	\$ (57,949)	\$ (55,836)
Loan or Financing Lease - Principal Payments (+)	12,036	12,951	915	17,247	5,211
Net Financing Activity (D)	\$ 9,923	\$ 8,721	\$ (1,202)	\$ (40,702)	\$ (50,625)
Total Budget (=B+C+D)	\$ 8,196,207	\$ 9,310,176	\$ 1,113,970	\$ 8,963,250	\$ 767,044
Change in Working Capital (=A-B-C-D)	\$ -	\$ (1,117,053)	\$ (1,117,053)	\$ 300,000	\$ 300,000
FTEs	2.82	2.96	0.14	3.94	1.12

Personnel Certification and Continuing Education

Personnel Certification and Continuing Education (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	2.82	2.82	-
Direct Expenses	\$ 982,466	\$ 1,097,635	\$ 115,169
Indirect Expenses	687,687	702,307	14,620
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	56,446	56,837	391
Financing Activity	9,923	(29,160)	(39,083)
Total Budget	\$ 1,736,522	\$ 1,827,619	\$ 91,097

Background and Scope

The Personnel Certification group oversees the System Operator Certification Program that promotes reliability of the North American BPS by ensuring that employers have a workforce of system operators that meet minimum qualifications. NERC monitors system operators to ensure they maintain their required credentials to work in system control centers across North America. NERC’s system operator certification exam tests specific knowledge of job skills and Reliability Standards. It also prepares operators to handle the BPS during normal and emergency operations. Certification is maintained by completing NERC-approved Credential Maintenance Program courses and activities. These industry-accepted qualifications are set through internationally recognized processes and procedures for agencies that certify persons. ROP Section 600 addresses Personnel Certification activities in the area of System Operator Certification.

The Personnel Certification Governance Committee (PCGC) is a NERC standing committee that provides oversight to the policies and processes used to implement and maintain the integrity and independence of the NERC System Operator Certification Program. The PCGC provides reports to the Board regarding the governance and administration of the System Operator Certification Program.

The Credential Maintenance Working Group (CMWG) reports to the PCGC and is responsible for developing and maintaining the Credential Maintenance Program under the general guidelines set by the PCGC. Credential maintenance of the System Operator Certification program is accomplished by obtaining Continuing Education Hours (CEHs). The Credential Maintenance Program acknowledges high quality learning activities within the electric utility industry via the approval of continuing education providers and their approved courses.

The Exam Working Group (EWG) consists of subject matter experts from all regions of North America and is responsible for doing an extensive job analysis survey of certified operators across the industry, which provides the basis for the exams. The job analysis survey results in an exam content outline for each of the four exams. The exam content outline is the framework used to associate tasks to exam questions. NERC contracts with psychometric consultants who assist a working group of certified system operators in the development and maintenance of each exam.

The System Operator Certification and Credential Maintenance programs are self-funded through exam and continuing education provider fees, and the PCGC oversees the programs’ budgets.

Stakeholder Engagement and Benefit

The Personnel Certification group collaborates with the PCGC, CMWG, and EWG on the completion of System Operator Certification program tasks. Personnel Certification staff coordinate and administer the PCGC, CMWG, and EWG meetings and all activities associated with the System Operator Certification program. Industry stakeholders also benefit from the ability to participate in the Job Task Analysis (JTA) and the Item Writing Workshop (IWW), which occur every three years.

Tools and Technology

The primary tool of the System Operator Certification and the Credential Maintenance programs is a credential maintenance database known as the System Operator Certification Continuing Education Database (SOCCED). Candidates and System Operators use the tool for purchasing a certification exam application and, upon successfully passing the exam, credential maintenance. Continuing education providers use SOCCEd to become a provider and upload courses for approval as well as earned CEHs to System Operator transcripts.

Key Efforts Underway

The Personnel Certification department is focused on the following priorities and ongoing activities:

- Analysis of System Operator Certification program survey results;
- Updates to the System Operator Certification Exam Item Bank to ensure relevance to current Reliability Standards;
- Enhancements to the exam “skills assessment” process to better assess the skills and knowledge of System Operators;
- Upon industry and FERC acceptance, development of an implementation plan for One Credential transition;
- Evaluating credential review and rationalization to maintain credentials;
- Improving the Provider Renewal Audits process;
- Updating the current SOCCEd platform to coincide with the revised Credential Maintenance Program Manual; and
- Continued improvements to the SOCCEd system to enhance user experiences.

2022 Goals and Deliverables

Under the guidance of the PCGC, the Personnel Certification group is dedicated to enhancing the System Operator Certification program to support reliable operation of the BPS. In 2022, the group will focus on further development of the credential maintenance portion of the certification program. Key deliverables for the System Operator Certification program include:

- Analysis of System Operator Certification Program survey results;
- Annual analysis of the System Operator Certification Exam Item Bank;
- Annual analysis of Appendix A topics;
- Credential maintenance requirements; and
- Continued enhancements for SOCCEd.

Under the guidance of the PCGC and CMWG, the Personnel Certification group will continue to focus on revisions, approval, and implementation of the Credential Maintenance Program Manual to provide clear and concise definitions, instructions, and processes for the program. The CMWG is also overseeing the

development of guidelines that will assist industry with the creation and administration of their own System Operator Certification credential maintenance programs.

Future Plans

In 2023 and beyond, the Personnel Certification group will focus on transition and implementation plans for the primary activities in 2022. For the System Operator Certification Program, this includes transitioning to One Credential and the appropriate credential maintenance requirements, and for the Credential Maintenance Program this includes improvement of the Credential Maintenance Program Manual.

Resource Requirements

Personnel

There is no change in FTEs from the 2021 budget to the 2022 budget.

Consultants and Contracts

The \$75k increase for Consultants & Contracts from the 2021 budget to the 2022 budget is primarily attributable to additional support for a credential maintenance research project. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

There are no significant changes for any other direct costs.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Personnel Certification and Continuing Education					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection	Budget	2022 Budget
			v 2021 Budget		v 2021 Budget
			Over(Under)		Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Third-Party Funding					
Testing, Renewal, & Continuing Ed Fees	1,801,634	1,654,822	(146,812)	1,756,723	(44,911)
Services & Software	-	-	-	-	-
Miscellaneous	-	500	500	-	-
Interest & Investment Income	7,200	2,000	(5,200)	500	(6,700)
Total Funding (A)	\$ 1,808,834	\$ 1,657,322	\$ (151,512)	\$ 1,757,223	\$ (51,611)
Expenses					
Personnel Expenses					
Salaries	\$ 304,433	\$ 324,713	\$ 20,281	\$ 318,852	\$ 14,419
Payroll Taxes	22,091	23,002	911	23,835	1,744
Benefits	44,346	41,954	(2,391)	43,222	(1,124)
Retirement Costs	33,665	36,365	2,700	35,638	1,973
Total Personnel Expenses	\$ 404,534	\$ 426,034	\$ 21,500	\$ 421,547	\$ 17,013
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 20,192	\$ 5,000	\$ (15,192)	\$ 32,000	\$ 11,808
Travel	13,190	3,770	(9,420)	14,000	810
Total Meetings & Travel Expenses	\$ 33,382	\$ 8,770	\$ (24,612)	\$ 46,000	\$ 12,618
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 388,650	\$ 484,650	\$ 96,000	\$ 463,188	\$ 74,538
Office Rent	-	-	-	-	-
Office Costs	155,600	164,642	9,042	166,600	11,000
Professional Services	-	-	-	-	-
Miscellaneous	300	300	-	300	-
Total Operating Expenses, excluding Depreciation	\$ 544,550	\$ 649,592	\$ 105,042	\$ 630,088	\$ 85,538
Total Direct Expenses	\$ 982,466	\$ 1,084,396	\$ 101,930	\$ 1,097,635	\$ 115,169
Indirect Expenses	\$ 687,687	\$ 769,866	\$ 82,179	\$ 702,307	\$ 14,620
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,670,153	\$ 1,854,262	\$ 184,109	\$ 1,799,942	\$ 129,789
Change in Net Assets (=A-B)	\$ 138,681	\$ (196,940)	\$ (335,621)	\$ (42,719)	\$ (181,400)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 56,446	\$ 52,600	\$ (3,846)	\$ 56,837	\$ 391
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (2,113)	\$ (4,245)	\$ (2,132)	\$ (41,516)	\$ (39,403)
Loan or Financing Lease - Principal Payments (+)	12,036	12,996	960	12,356	320
Net Financing Activity (D)	\$ 9,923	\$ 8,751	\$ (1,172)	\$ (29,160)	\$ (39,083)
Total Budget (=B+C+D)	\$ 1,736,522	\$ 1,915,613	\$ 179,092	\$ 1,827,619	\$ 91,097
Change in Working Capital (=A-B-C-D)	\$ 72,312	\$ (258,291)	\$ (330,604)	\$ (70,396)	\$ (142,708)
FTEs	2.82	2.97	0.15	2.82	0.00

Training and Education

Training and Education (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
FTE Reporting	1.88	1.88	-
Direct Expenses	\$ 610,153	\$ 538,358	\$ (71,795)
Indirect Expenses	458,458	468,205	9,747
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	9,297	37,891	28,594
Financing Activity	6,615	(19,440)	(26,055)
Total Budget	\$ 1,084,523	\$ 1,025,014	\$ (59,510)

Background and Scope

ROP Section 901 acknowledges the need to acquire and sustain informed, knowledgeable, and skilled personnel in order to assure the reliable operation of the North American BPS. The Training and Education group facilitates the learning and development of NERC¹² and ERO Enterprise staff as well as BPS industry participants. The program oversees and coordinates learning activities and resources that support the acquisition and increase of knowledge and skills among stakeholders.

Stakeholder Engagement and Benefit

The Training and Education group's stakeholders are comprised of ERO Enterprise employees and BPS industry learners, project sponsors and managers, subject matter experts, and anyone else with an interest in the outcome of a learning event. The Training and Education program uses one-way mass communication media, such as emails, newsletters, flyers and videos to convey information about learning events and resources. Two-way communication methods, such as face-to-face meetings and webinars, are used whenever three or more stakeholders are engaged to analyze learning needs, mutually solve problems, or delegate responsibilities and tasks. Learners are typically engaged through learning events and products and resources, such as custom-made and off-the-shelf interactive self-paced e-learning modules, video-based learning, and in-person and live-webinar instructor-led training.

Tools and Technology

The Training and Education group uses the following tools and technology to support their activities:

- Learning Management System (LMS) platform and content library for online learning modules
- E-learning content management systems and authoring tools
- Graphic design and video editing software
- Video camera, lighting, green screen, and audio equipment
- Web-based interactive audience response applications

Key Efforts Underway

The Training and Education team's key efforts are based on the ERO Enterprise's long-term strategic goal of developing the skills needed to perform high quality rigorous activities keeping up with the fast changing pace of supporting technology, and supporting the transformation of NERC and the ERO

¹² NERC's HR budget includes funding for general NERC employee training and development.

Enterprise. The Training and Education group is currently focused on the follow priorities and ongoing activities:

- Assisting in the facilitation of the ERO Enterprise CMEP staff workshop by designing, developing, and delivering video-based and interactive e-learning resources as well as the management of supporting resources, such as interactive audience response applications;
- Developing Confidential Information e-learning part 1 and the follow up live training (to be converted to e-learning at a later date);
- Developing CMEP e-learning modules for ERO Enterprise auditors, systems training products for data systems, including GADS Wind, and functional program training modules, such as the Cause Analysis e-learning module;
- Supporting the ERO's People Strategy and cultural initiatives; and
- Developing multi-modal Align training for registered entities, compliance enforcement authorities, and NERC.

2022 Goals and Deliverables

The Training and Education group's deliverables for 2022 include:

- Development of promotional and training videos, e-learning modules and instructor-led training in support of the releases of the Align and ERO SEL system software;
- Identification, design, development, and implementation of a management development program and other employee training;
- Any necessary updates or enhancements to existing instructional design support tools and software;
- Implementing training and adoption for the new LMS among ERO Enterprise employees;
- Continued development of the ERO Enterprise Systems Training website;
- Updating systems training products for data systems including GADS, GADS Wind, TADS, etc. to reflect the enhancements to the data systems; and
- Design and development of cause analysis training.

Future Plans

In 2023 and beyond, the Training and Education group expects to focus on the following:

- Development of learning resources for subsequent releases of/enhancements to the Align and ERO SEL tools;
- Implementation of learning products to support NERC's People Strategy;
- Continued development of the ERO Enterprise Systems Training website;
- Delivery of an orientation/onboarding program for ERO Enterprise employees; and
- Any necessary updates or enhancements to existing instructional design support tools and software.

Resource Requirements

Personnel

There is no change in FTEs from the 2021 budget to the 2022 budget.

Consultants and Contracts

The \$70k decrease for Consultants & Contracts from the 2021 budget to the 2022 budget is due to a reduction in ERO Enterprise transformation related training as current cultural initiatives mature. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Other Significant Direct Costs

There are no significant changes for any other direct costs.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions 2021 Budget & Projection, and 2022 Budget					
Training and Education					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ 1,081,949	\$ 1,081,949	\$ -	\$ 1,023,976	\$ (57,973)
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ 1,081,949	\$ 1,081,949	\$ -	\$ 1,023,976	\$ (57,973)
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing, Renewal, & Continuing Ed Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	2,574	47	(2,527)	1,038	(1,536)
Total Funding (A)	\$ 1,084,523	\$ 1,081,996	\$ (2,527)	\$ 1,025,014	\$ (59,510)
Expenses					
Personnel Expenses					
Salaries	\$ 226,511	\$ 240,386	\$ 13,875	\$ 234,880	\$ 8,369
Payroll Taxes	18,582	18,355	(227)	18,880	298
Benefits	63,864	61,651	(2,213)	49,040	(14,824)
Retirement Costs	25,471	27,054	1,583	26,357	886
Total Personnel Expenses	\$ 334,429	\$ 347,446	\$ 13,017	\$ 329,158	\$ (5,271)
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 1,262	\$ 1,000	\$ (262)	\$ 2,000	\$ 738
Travel	3,297	942	(2,355)	3,500	203
Total Meetings & Travel Expenses	\$ 4,559	\$ 1,942	\$ (2,617)	\$ 5,500	\$ 941
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 170,000	\$ 80,000	\$ (90,000)	\$ 100,000	\$ (70,000)
Office Rent	-	-	-	-	-
Office Costs	100,465	100,216	(249)	103,000	2,535
Professional Services	-	-	-	-	-
Miscellaneous	700	700	-	700	-
Total Operating Expenses, excluding Depreciation	\$ 271,165	\$ 180,916	\$ (90,249)	\$ 203,700	\$ (67,465)
Total Direct Expenses	\$ 610,153	\$ 530,304	\$ (79,849)	\$ 538,358	\$ (71,795)
Indirect Expenses	\$ 458,458	\$ 513,244	\$ 54,786	\$ 468,205	\$ 9,747
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,068,610	\$ 1,043,548	\$ (25,063)	\$ 1,006,562	\$ (62,048)
Change in Net Assets (=A-B)	\$ 15,913	\$ 38,449	\$ 22,536	\$ 18,451	\$ 2,539
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 9,297	\$ 6,734	\$ (2,564)	\$ 37,891	\$ 28,594
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ (1,409)	\$ (2,830)	\$ (1,421)	\$ (27,677)	\$ (26,268)
Loan or Financing Lease - Principal Payments (+)	8,024	8,663	639	8,237	213
Net Financing Activity (D)	\$ 6,615	\$ 5,833	\$ (782)	\$ (19,440)	\$ (26,055)
Total Budget (=B+C+D)	\$ 1,084,523	\$ 1,056,114	\$ (28,409)	\$ 1,025,014	\$ (59,510)
Change in Working Capital (=A-B-C-D)	\$ -	\$ 25,882	\$ 25,882	\$ -	\$ -
FTEs	1.88	1.98	0.10	1.88	0.00

Administrative Programs

Administrative Programs (in whole dollars)						
	Direct Expenses, Fixed Assets, & Net Financing Activity			FTEs		
	2021 Budget	2022 Budget	Increase (Decrease)	2021 Budget	2022 Budget	Increase (Decrease)
General & Administrative	\$ 11,304,770	\$ 11,736,346	\$ 431,576	17.86	18.80	0.94
Legal and Regulatory	4,631,911	5,123,376	491,465	15.98	15.98	-
Information Technology	12,936,602	14,026,598	1,089,996	26.32	27.50	1.18
Human Resources & Administration	2,775,720	3,852,313	1,076,593	9.40	11.28	1.88
Finance and Accounting	2,052,043	2,186,385	134,342	7.52	7.52	-
Total Administrative Programs	\$ 33,701,046	\$ 36,925,018	\$ 3,223,972	77.08	81.08	4.00

Program Scope and Functional Description

NERC's Administrative Programs area includes the budget for all business and administrative functions of the organization, including (1) General and Administrative (G&A); (2) Legal and Regulatory; (3) IT; (4) Human Resources (HR) & Administration; (5) Finance and Accounting; and (6) other general administrative expenses necessary to support program area activities. The costs of the Administrative Programs functions are allocated to the statutory programs as indirect expenses. The resource requirements and comparative budget information for each of these functions are described below.

G&A

The G&A area is responsible for the administration and general management of the organization. Expenses allocated in this area include office rent as well as personnel and related costs for (1) the CEO, the Chief Engineer, the CAO, and their support staff; (2) External Affairs staff, described below; and (3) Board costs, detailed below.

External Affairs

The External Affairs group provides strategic and communications advice on policy-related matters, manages internal and external messaging and outreach, and serves as the primary representative for NERC on matters to external audiences, including those in the United States, Canada, and Mexico. The External Affairs group includes staff who are focused on three areas:

- **Legislative and Regulatory** – Addresses policy matters that arise in legislative arenas and manages regulatory outreach related to FPA Section 215. Engagement occurs with federal and state regulators and legislators, and other governmental and non-governmental stakeholder organizations. NERC is registered as a lobbying organization under applicable laws and complies with all lobbying rules and regulations. Engagement occurs through direct communication with legislators, regulators, government officials and their staffs.
- **Communications** – Manages all external and internal communications that support NERC initiatives, including newsletters, media coordination and messaging, as well as facilitating consistency of message internally with staff and across the ERO Enterprise. This group works with senior management on identified strategic objectives of the corporation as well as internal initiatives and is responsible for managing the content of NERC's website and NERC's social media presence.
- **North American Affairs** – Serves as the liaison with government entities and industry stakeholders in Mexico and Canada. Key activities include supporting NERC business units and REs. This group also facilitates communication and information exchange with entities outside North America.

The External Affairs group is focused on the following efforts and activities:

Legislative and Regulatory

- Communications coordination with Congress and executive branch agencies (i.e., DOE, White House) on reliability, security, and related matters;
- Coordinating with Government Accountability Office, Congressional Research Service, and other government entities on reports;
- Congressional hearing preparation and coordination on energy and security legislation and related matters;
- Support of FERC technical conferences, coordination and strategic import related to meetings with the Chairman, Commissioners, and FERC staff;
- Education and communication on reliability and security matters to states (e.g., the National Association of Regulatory Utility Commissioners);
- Building strategic partnerships with stakeholders and policymakers; and
- Supporting business units through guidance, advice, and written materials related to external messaging for the E-ISAC, reliability assessments, and other initiatives.

Communication

- Supporting ERO Enterprise-wide communication efforts;
- Coordinating with the IT department to improve the NERC website, reducing extraneous, outdated pages and documents, and improving search capability and user experience;
- Supporting the E-ISAC in communication and outreach efforts, especially as related to GridSecCon and GridEx, including convening and chairing a communications working group;
- Managing media inquiries and messaging, including social media presence;
- Working with NERC departments on communication matters related to Align and the ERO SEL and adapting the Standards and Compliance Bulletin to reflect the entire ERO Enterprise footprint; and
- Managing internal communications in coordination with HR.

North American Affairs

- Reviewing standards adoption and Canadian enforcement status in coordination with NERC business units;
- Identifying and expanding messaging related to international value of the ERO with international organizations and agencies;
- Maintaining relationships across the ERO Enterprise, focusing on those REs with international borders;
- Acting as the primary liaison with Canadian provincial, federal, and industry stakeholder groups related to reliability (e.g., Canada's Energy and Utility Regulators [CAMPUT], NRCan);
- Supporting the outreach efforts to Canada and Mexico by NERC business units and the E-ISAC; and
- Communicating the value of a North American ERO to external stakeholders and policymakers.

External Affairs continues to see increased activity in external and internal communication efforts as well as in the legislative and regulatory arenas related to reliability and security matters. As a registered lobbying organization, tracking and monitoring advocacy efforts for reliability and security could potentially trigger additional reporting requirements, calling for more vigilance in tracking costs. Additionally, communications activities are increasing to support NERC’s People Strategy, transformation efforts and further coordination across the ERO Enterprise, the E-ISAC, and a potential future website redesign.

Resource Requirements

External Affairs staff is increasing by 0.94 FTEs from the 2021 budget to the 2022 budget due to the reallocation of an open position from Compliance Assurance to External Affairs for an employee communications position in support of the People Strategy discussed in the *Introduction and Executive Summary*. The 2022 budget for External Affairs also includes \$40k for Professional Services for government relations support, and there is \$20k in the Consultants & Contracts budget for general communications support. The G&A area also has \$100k for Consultants & Contracts in the 2022 budget for strategic initiatives support. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Board Costs

The following table details the Board costs included in the total G&A expenses.

Board of Trustee Expenses	2021 Budget	2022 Budget	Increase (Decrease)	
Meeting and Travel Expenses				
Quarterly Board Meetings	\$ 145,130	\$ 240,000	\$ 94,870	65.4%
Trustee Travel	97,934	160,000	62,066	63.4%
Total	\$ 243,064	\$ 400,000	\$ 156,936	64.6%
Professional Services				
Independent Trustee Fees	\$ 1,392,500	\$ 1,580,000	\$ 187,500	13.5%
Trustee Search Fees	50,000	-	(50,000)	-100.0%
Total	\$ 1,442,500	\$ 1,580,000	\$ 137,500	9.5%
Total	\$ 1,685,564	\$ 1,980,000	\$ 294,436	17.5%

The \$157k increase for meeting and travel expenses from the 2021 budget to the 2022 budget is primarily due to the planned return to in-person Board meetings and related travel, which is discussed in the *Introduction and Executive Summary*. The \$187k increase for independent trustee fees is predominately related to the addition of one Board member¹³ and estimated increases to trustee compensation, subject to the next independent study on trustee compensation scheduled for the end of 2021.

Legal and Regulatory

The Legal and Regulatory department supports the NERC program areas and is responsible for providing a wide range of legal support to the NERC management team regarding antitrust, corporate, commercial, insurance, contract, employment, real estate, copyright, tax, legislation, and other legal matters. The department also addresses legal and regulatory matters that arise in connection with the delegation agreements with the REs. Additionally, the Legal and Regulatory department includes the Internal Audit and Corporate Risk Management (CRM) functions, explained further below.

¹³ An additional Board member was added pursuant to Article III, Section 1a of the NERC Bylaws.

Internal Audit and Corporate Risk Management

The Internal Audit group performs independent, objective activities (i.e., audits and assessments) designed to add value and improve NERC and RE operations. The activities ensure:

- Risks are appropriately identified, prioritized, and managed across NERC and the ERO Enterprise;
- The effectiveness of risk management processes is monitored and evaluated;
- Systems of internal control are adequately promoted and are effectively functioning; and
- Significant risk exposures and control issues, including fraud risks, governance issues, and other matters needed or requested by the Board are reported.

Internal Audit specifically engages with the CCC to collaborate on monitoring of the ERO Enterprise as contemplated by ROP Sections 406, 506, and Appendix 4A. Internal Audit also collaborates with NERC's CMEP and ORCP teams to take an ERO Enterprise-wide approach to the CMEP and ORCP self-certification process. Internal Audit, the CCC, and the Board Enterprise-wide Risk Committee (EWRC) collectively provide oversight regarding NERC's and the ERO Enterprise's compliance with relevant portions of the ROP, allowing for timely reporting and consistent remediation effort, as necessary.

The Corporate Risk Management (CRM) process focuses on ERO Enterprise corporate financial, operational, legal, regulatory and compliance risks. NERC's current enterprise risk management (ERM) process is conducted annually, based on the Committee of Sponsoring Organization of the Treadway Commission (COSO) framework. The process considers the ERO Enterprise-wide strategic plans and goals and determines the applicability of other inputs, such as the RISC report, LTRA, and the annual CMEP report. Risk is also identified via interviews or surveys with program management, executives and the Board. The results of the ERM process serve as a roadmap in developing the company's corporate risk, compliance, and ethics framework. The CRM group is continuing to work with the REs to enhance the ERO Enterprise-wide corporate risk identification and risk mitigation efforts. This occurs through collaborative interactions to identify high priority ERO Enterprise risks, remediating internal control weaknesses, implementing performance improvement recommendations, and sharing lessons learned and best practices. Deliverables include more streamlined and coordinated reports and harmonized assessment of ERO Enterprise risks and processes. At times, CRM also interfaces with stakeholders to perform risk assessment activities.

In 2022 and beyond, Internal Audit will continue to perform risk-based audits and participate in special projects that will provide value to NERC and the ERO Enterprise. Internal Audit and CRM also will seek to leverage the CMEP's Align application, with minimum customization, to implement a governance, risk management, and compliance (GRC) tool to support Internal Audit and CRM activities.

Resource Requirements

There is no change in FTEs from the 2021 budget to the 2022 budget in the Legal and Regulatory area. There is a \$100k increase for Contracts & Consultants from the 2021 budget to the 2022 budget primarily due to Internal Audit support for an ERO Enterprise IT security audit (support for FERC-mandated CMEP audits of the REs is budgeted in the Compliance Assurance and Enforcement areas, as discussed in those sections). A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*. Outside law firms and consultants supporting Legal area are budgeted as Professional Services. The Professional Services budget for Legal and Regulatory in 2022 is \$21k more than 2021.

Information Technology

NERC's IT department provides the technology needed for the organization to meet ERO statutory obligations. IT also supports, configures, and secures NERC corporate and enterprise applications and

infrastructure leveraged by the ERO Enterprise and registered entities. The IT department includes a Project Management Office (PMO) that provides project management skills and leadership for major ERO Enterprise and NERC IT projects, including those of the E-ISAC. NERC's IT strategy includes adoption of an enterprise IT investment planning methodology that ensures major projects have compelling business cases, and a "platform" strategy that enables more cost-effective configuration solutions versus creating custom solutions. Examples of these platforms include Microsoft Dynamics xRM, Microsoft SharePoint, the Salesforce CRM system, and the BWISE GRC system.

NERC's IT department is currently focused on five key areas: Cyber security, ERO Enterprise new functionality, ERO Enterprise applications, E-ISAC, and NERC infrastructure support.

Cyber Security. Cyber threat volume and sophistication continues to increase while time to respond is minimal. This is seen outside of NERC in recent events related to zero day supply chain attacks (e.g., SolarWinds), vulnerabilities and breaches (e.g., Microsoft Exchange), and ransomware events (e.g., Colonial Pipeline). Potential threat actors include criminal groups to highly active nation states. The burden for alert and incident response, vulnerability management, patching, and keeping systems up to date is at an all-time high. Since security must be applied to the full application and infrastructure lifecycle, NERC IT continues to take a defense in depth best practice approach and enhance and mature its cyber security program to protect NERC assets and the availability, integrity, and confidentiality of the data NERC stewards. This includes requirements for additional dedicated highly skilled cyber security personnel and additional technology procurement, including enhanced identity management, data protection, and security monitoring systems and services.

ERO Enterprise New Functionality. This includes technologies designed to improve or add capability to the registered entities, REs, and NERC staff. For those projects that involve regional or registered entities, subject matter experts are regularly engaged on the project team to provide business requirements, functionality testing, and outreach. The benefits of this approach ensure that the systems delivered are the systems that meet stakeholder needs now and in the future. IT and PMO staff are currently focused on supporting the following key ERO Enterprise IT projects, including development, implementation, and future enhancements:

- The Align, ERO SEL, and CORES projects – NERC has been working closely with the REs to implement strategic investments in tools to support key ERO statutory functions. These tools replace various manual processes and numerous applications with robust, platform-based tools that can serve the needs of the entire ERO Enterprise. The existing CMEP and Registration data applications, along with the various evidence storage solutions used by NERC and the REs are being replaced with three enterprise-grade tools:
 - Align, a single, common business application for use in implementing the risk-based CMEP;
 - The ERO SEL, a highly secure storage area to protect and manage certain registered entity evidence and data; and;
 - The CORES system, which provides a single tool for use in Entity Registration.

CORES was initially released in 2019, and ongoing enhancements are continuing. The first release of Align and the ERO SEL to support self-reporting, self-logging, enforcement, and mitigation occurred in a phased manner across the REs during the first and second quarters of 2021, with two more releases planned in 2021 to support Compliance Assurance activities. Continued enhancements for these tools are budgeted for 2022 and beyond. For more information, see the *Compliance Assurance and Organization Registration and Certification* section and the [Align Project](#) and [CORES Technology Project](#) pages on the NERC website.

- Situation Awareness tools – The upgraded situation awareness tool provides near real-time information to NERC, FERC, and the REs on current operating conditions of the BPS from a wide-area view. The upgrade allows for rapid and accurate situational awareness that appropriately protects the proprietary information in the tool while maximizing the value of understanding shared to the right audiences. Additionally, a disaster recovery site is being implemented to augment the redundancy inherent to the primary site’s application architecture by hosting a second instance of the application in NERC’s data center. For more information, see the *Situation Awareness* section.
- Data management system enhancements – As the grid evolves, the collection, quality, and integration of data becomes increasingly important, requiring continued investment in enhancements to the suite of data management tools, including those related to generating availability, transmission availability, and event analysis data. Enhancements and modifications to existing software applications are expected in 2022 and beyond, as well as the development of a system for data associated with solar energy storage and requirements building for a more functional system for data supporting reliability assessments. For more information, see the *Reliability Assessment and Performance Analysis* and *Event Analysis* sections.

ERO Enterprise Application and Infrastructure Support. This includes the underlying infrastructure and resources required to support existing and future ERO Enterprise applications, such as server host machines, virtual servers, storage, back-up and restore systems, networks, and communications. This also includes event preparedness and business continuity, as well as a continued strong emphasis on security processes and tools. Collaboration and sharing information between NERC and the REs will continue to be a cornerstone of this work, with strong efforts to support consistent technology approaches across the ERO Enterprise when and where possible.

E-ISAC. This includes ongoing efforts to support E-ISAC resource needs to provide analysis of information received from various sources, share and disseminate actionable intelligence about threats to the sector, and optimize the exchange of information both within and externally to the E-ISAC. Integrating key service and support functions across the E-ISAC technology ecosystem will help to eliminate any inefficiencies and ensure E-ISAC staff are able to continue their efforts to expand analysis and information sharing services. Additionally, work will continue to develop data sharing and support the vision of the E-ISAC long-term strategy. For more information, see the *Electricity Information Sharing and Analysis Center* section.

NERC Infrastructure Support. This includes similar items as noted above in the ERO Enterprise application and infrastructure support category, including but not limited to Microsoft Office productivity tools, audio visual systems, and laptops, as well as business continuity and security technologies.

In 2023 and beyond, NERC IT and PMO staff will continue to oversee the requirements, design, and implementation of new and enhanced technology for NERC and the ERO Enterprise. This includes planned enhancements for Align and the ERO SEL, CORES, the suite of data management and E-ISAC systems, as well as potential upgrades to the NERC website.

Resource and Other Requirements

The increase of 1.18 FTEs in IT from the 2021 budget to the 2022 budget is the result of two additional positions for internal cyber security and system administration, offset by a partial direct allocation of a project manager to E-ISAC and CRISP. There is a \$98k increase for Consultants & Contracts expenses from the 2021 budget to the 2022 budget primarily for additional ERO application and infrastructure support

that was reduced in scope in 2021 as a part of cost savings efforts. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

A \$140k increase in Office Costs from the 2021 budget to the 2022 budget is primarily a result of annual escalation estimates for existing software licenses and support, as well as for enhanced security solutions. The IT Fixed Asset budget includes \$675k for planned technology equipment replacements, as well as \$2.1M for capital lease assets, which includes \$2.0M for a new audio visual equipment lease and \$100k for laptop leases. This \$2.1M is offset by \$2.1M for financing lease proceeds, and the budget for financing lease payments is approximately \$625k.

Human Resources and Administration

The HR and Administration group primarily includes benefits administration, employee relations, performance and compensation management, training and development, facilities management of NERC's two office locations, and meeting planning and coordination.

As discussed in the *Introduction and Executive Summary*, NERC's ability to retain, engage, and attract top talent is critical to the mission of the ERO Enterprise. NERC is implementing a "People Strategy" designed to create an employee experience that meets the expectations of an evolving workforce and shift from a tactically focused people management model to a more sustainable people-centered organization. This three-year plan uses existing and new staff to bring core HR functions in-house and leverages external support for specific expertise, particularly in the following areas.

Leadership, Management, and Professional and Administrative Staff Training and Development

As part of the ERO Enterprise's ongoing efforts to engage and retain highly qualified talent with the leadership and technical skills to support its mission, NERC's executives, managers, and professional and support staff will participate in ongoing training and development to improve competencies critical to success and succession planning. NERC will also continue to invest in learning opportunities in several areas, including (1) an e-learning platform for improving soft and technical skills; (2) broad-based staff development training through real-world access via tours of and training on control centers, electric substations, and power generation plants; and (3) access to additional education, including but not limited to degree-oriented university education, pursuit of specialized certifications, and other in-house and external training that provides essential competencies and skills development. A key current and future focus includes ongoing coaching, education, and culture and leadership training with respect to the ERO Enterprise transformation discussed in the *About NERC* section at the beginning of this document, as well as a concerted focus on diversity and inclusion and remote work training.

Compensation Strategy

NERC relies on data and advice from multiple perspectives to hire and retain the necessary staff to support the company's goals and objectives. Under the mandate of the Corporate Governance and Human Resources Committee (CGHRC), NERC performs periodic market compensation studies to benchmark the pay practices of similar organizations and roles for which NERC hires. Management will continue to closely monitor market conditions through periodic compensation studies and real-time pay trends of its candidate pool.

Compensation Consulting

Consultants are periodically retained to examine appropriate compensation based on current market data, including independent analysis of pay equity. This ensures that decisions affecting compensation are made in light of the current market climate and that qualified employees are attracted and retained within a defined total remuneration range. NERC also periodically retains compensation subject matter experts

to perform periodic assessments of the Board compensation model to ensure alignment with market practices.

Surveys

HR uses surveys as appropriate, based on business needs, which may include periodic internal employee engagement surveys.

Succession Planning

Minimizing disruption of knowledge, skill, and experience of key staff is critical to the company's success. HR works with senior management to identify essential roles and develop strategies to build succession and contingency plans for any loss of staff.

HR Products and Services Automation

HR continues to operate, maintain, and investigate investment in additional electronic platforms for HR support services that reduce administrative burden and improve employee access to tools and information.

Resource and Other Requirements

The 1.88 increase in FTEs is in support of the successful execution of the People Strategy previously discussed, and is offset on the company level by the reallocation of one open position in Compliance Assurance to HR and Administration and the repurposing of one open position due to a senior director-level retirement. Consultants & Contracts expenses are increasing by \$260k also in support of the People Strategy, particularly for leadership training and cultural transformation initiatives. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*.

Miscellaneous expenses budgeted in the HR area include employee engagement expenses. Employee Engagement expenses are increasing \$44k for costs related to NERC's Employee Resource Groups, which provide employees opportunities to engage, connect, and advance a culture of diversity and inclusion.

Finance and Accounting

NERC's Finance and Accounting department manages all finance and accounting functions, including employee payroll, 401(k), 457(b), and 457(f) plans, travel and expense reporting, financial reporting, sales and use tax, and corporate insurance. This area also holds primary responsibility for the development of the annual BP&B. Over the past several years, NERC's Finance and Accounting department implemented additional systems, policies, procedures, and controls governing day-to-day practices, including contract and personnel procurements, expense reimbursement, and back office systems and procedures. The department will continue to refine, improve and, where necessary, implement additional procedures and controls.

Resource Requirements

There is no change in FTEs from the 2021 budget to the 2022 budget in the Finance and Accounting area. Consultants & Contracts expenses are increasing \$60k primarily due to the return of consulting and contract support deferred in 2021 as a part of cost savings efforts. A comparison of 2021 and 2022 budgeted expenses is shown in *Exhibit B – Consultants and Contracts Costs*. Outside firm support for legal services, financial statement and savings and investment plan audits, tax compliance services, and retirement plan and advisory consulting are budgeted as Professional Services. The Professional Services budget for Finance and Accounting in 2022 is slightly higher than 2021 due to a return of support that was deferred in 2021 as a part of cost savings efforts.

Section A – 2022 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2021 Budget & Projection, and 2022 Budget					
Administrative Programs					
			Variance		Variance
	2021	2021	2021 Projection	2022	2022 Budget
	Budget	Projection	v 2021 Budget	Budget	v 2021 Budget
			Over(Under)		Over(Under)
Funding					
NERC Funding					
NERC Assessments	\$ (1,800,000)	\$ (1,800,000)	\$ -	\$ -	\$ 1,800,000
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ (1,800,000)	\$ (1,800,000)	\$ -	\$ -	\$ 1,800,000
Third-Party Funding					
Testing, Renewal, & Continuing Ed Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Miscellaneous	-	0	-	-	-
Interest & Investment Income	-	(0)	-	-	-
Total Funding (A)	\$ (1,800,000)	\$ (1,800,000)	\$ -	\$ -	\$ 1,800,000
Expenses					
Personnel Expenses					
Salaries	\$ 14,021,169	\$ 14,812,814	\$ 791,646	\$ 15,540,598	\$ 1,519,429
Payroll Taxes	758,335	799,390	41,055	834,316	75,982
Benefits	2,035,351	2,050,287	14,936	2,336,350	300,999
Retirement Costs	1,255,330	1,409,995	154,664	1,416,863	161,533
Total Personnel Expenses	\$ 18,070,184	\$ 19,072,485	\$ 1,002,301	\$ 20,128,127	\$ 2,057,943
Meetings & Travel Expenses					
Meetings & Conference Calls	\$ 436,477	\$ 201,453	\$ (235,024)	\$ 557,550	\$ 121,073
Travel	385,803	117,648	(268,155)	520,000	134,197
Total Meetings & Travel Expenses	\$ 822,280	\$ 319,101	\$ (503,179)	\$ 1,077,550	\$ 255,270
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 2,600,625	\$ 3,434,406	\$ 833,781	\$ 3,218,406	\$ 617,781
Office Rent	3,603,442	3,603,442	-	3,243,277	(360,165)
Office Costs	5,290,002	5,146,524	(143,478)	5,375,408	85,406
Professional Services	2,035,100	2,219,943	184,843	2,283,100	248,000
Miscellaneous	75,150	79,186	4,036	119,150	44,000
Total Operating Expenses, excluding Depreciation	\$ 13,604,319	\$ 14,483,501	\$ 879,182	\$ 14,239,341	\$ 635,022
Total Direct Expenses	\$ 32,496,783	\$ 33,875,088	\$ 1,378,304	\$ 35,445,018	\$ 2,948,235
Indirect Expenses	\$ (32,571,444)	\$ (34,001,136)	\$ (1,429,691)	\$ (35,525,018)	\$ (2,953,574)
Other Non-Operating Expenses	\$ 74,661	\$ 126,048	\$ 51,387	\$ 80,000	\$ 5,339
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A-B)	\$ (1,800,000)	\$ (1,800,000)	\$ -	\$ -	\$ 1,800,000
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
Financing Activity					
Loan or Financing Lease - Borrowing (-)	\$ -	\$ -	\$ -	\$ -	\$ -
Loan or Financing Lease - Principal Payments (+)	-	-	-	-	-
Net Financing Activity (D)	\$ -	\$ -	\$ -	\$ -	\$ -
Total Budget (=B+C+D)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Working Capital (=A-B-C-D)	\$ (1,800,000)	\$ (1,800,000)	\$ -	\$ -	\$ 1,800,000
FTEs	77.08	77.78	0.70	81.08	4.00

Section B – Supplemental Financial Information

Breakdown by Statement of Activity Sections

The following detailed schedules support the consolidated Statement of Activities.

Table B-1 – Total Reserves Analysis

Total Reserves Analysis						
Statutory						
	Total Reserves	Future Obligation Reserve ¹	Operating Contingency Reserve ²	System Operator Certification Reserve	CRISP Reserves ³	Assessment Stabilization Reserve
Beginning Reserves - 1/1/2021	\$ 14,707,583	\$ 1,657,901	\$ 7,982,913	\$ 996,220	\$ 1,549,549	\$ 2,521,000
Generation or (Use) of reserves from 2021 projections						
Projected 2021 operating results, including debt service and financing	\$ (1,222,545)	\$ -	\$ 85,294	\$ (258,290)	\$ (1,049,549)	\$ -
From 2021 approved addition/(use) of reserves	(2,351,600)	(551,600)	(1,800,000)	-	-	-
Other addition/(use) of reserves	-	-	-	-	-	-
Projected Reserves - 12/31/21	\$ 11,133,438	\$ 1,106,301	\$ 6,268,207	\$ 737,930	\$ 500,000	\$ 2,521,000
Required Working Capital and Operating Reserves - 12/31/22	\$ 11,392,306	\$ 1,135,565	\$ 6,268,207	\$ 667,534	\$ 800,000	\$ 2,521,000
Adjustment in funding to achieve required reserve balance	258,868	29,264	-	(70,396)	300,000	-
Less: Assessment Stabilization Reserve Release - Penalties	-	-	-	-	-	-
Total Adjustments to Reserves	\$ 258,868	\$ 29,264	\$ -	\$ (70,396)	\$ 300,000	\$ -
Assessment Reconciliation						
2022 Expenses, Capital Expenditures & Net Financing	\$ 88,028,284					
Less: Assessment Stabilization Reserve Release - Penalties	-					
Adjustment in funding to achieve required reserve balance	229,604					
Less: Other Funding Sources	(9,870,608)					
2022 NERC Assessment	\$ 78,387,280					

¹As explained in the discussion of reserves in the *Introduction and Executive Summary*, the Future Obligations Reserve offsets future, non-current liabilities.

²Except as otherwise approved by the Board, after review by the FAC, the amount of the Operating Contingency Reserve shall be between three and one half (3.5%) percent and seven (7%) percent of the company's total expense and fixed asset budget minus the sum of the System Operator Certification and CRISP budgets, each of which have separate reserves.

³The CRISP Reserve is used solely for certain contingencies in connection with CRISP. The reserve level of \$500,000 at December 31, 2021 is equal to the original CRISP reserve, established in 2015, funded by the participating utilities. Subject to approval of the CRISP participants, NERC proposes to increase the reserve by \$300,000 in 2022, funded by the participants, to provide additional operating reserve for CRISP.

Table B-2 – Penalties

Penalty Sanctions and Allocation Method

NERC Rules of Procedure (ROP) Section 1107.2 specifies that penalty monies received by NERC during the 12 months ended June 30 are to be used in the subsequent budget year to offset assessments. In 2015, the Board of Trustees (Board) approved an updated *Working Capital and Operating Reserves Policy* that was approved by FERC. This updated policy allows NERC, with Board and Federal Energy Regulatory Commission (FERC) approval pursuant to ROP Section 1107.4, to place penalty funds into an Assessment Stabilization Reserve for use in future years to offset assessments. Penalty sanctions released from the Assessment Stabilization Reserve are allocated to the following statutory programs to reduce assessments: (1) Reliability Standards and Power Risk Issues Strategic Management, (2) Compliance Assurance and Organization Registration and Certification, (3) Compliance Enforcement, (4) Reliability Assessment and Performance Analysis (RAPA), (5) Situation Awareness, (6) Event Analysis, (7) the Electricity Information Sharing and Analysis Center (E-ISAC), including the Cybersecurity Risk Information Sharing Program (CRISP), and (8) Training and Education. Penalty sanctions are allocated based on the number of full-time equivalents (FTEs) in the program divided by the aggregate total FTEs in the programs receiving the allocation.

NERC did not collect any penalties during the period July 1, 2020 to June 30, 2021 and is not requesting to deposit any funds into the Assessment Stabilization Reserve. The 2022 assessment also does not reflect a proposed release of funds from this reserve. The balance held in the Assessment Stabilization Reserve will be used for assessment offsets to stabilize and reduce assessments in future years.

Penalty Sanctions	Date Received	Amount Received
Penalties received between 7/1/2020 and 6/30/2021		
	N/A	\$ -
		\$ -
Penalties received prior to 6/30/2020, held in the assessment stabilization reserve		\$ 2,521,000
Total penalties available on 1/1/2022 to offset assessments		\$ 2,521,000
Adjustments		
Total penalties released to offset assessments in the 2022 Budget		\$ -
Total penalties held in Assessment Stabilization Reserve 12/31/2022		\$ 2,521,000

Table B-3 – Outside Funding

Outside Funding Breakdown By Program (Excludes Any Penalty Releases)	2021 Budget	2022 Budget	Increase (Decrease)
Reliability Standards			
Interest & Investment Income Allocation	\$ 22,947	\$ 10,895	\$ (12,052)
Total	\$ 22,947	\$ 10,895	\$ (12,052)
Compliance Assurance, Certification, and Registration			
Interest & Investment Income Allocation	\$ 32,175	\$ 11,933	\$ (20,243)
Total	\$ 32,175	\$ 11,933	\$ (20,243)
Compliance Enforcement			
Interest & Investment Income Allocation	\$ 16,731	\$ 6,744	\$ (9,987)
Total	\$ 16,731	\$ 6,744	\$ (9,987)
Reliability Assessment and Performance Analysis			
Services and Software	\$ 60,000	\$ 60,000	\$ -
Interest & Investment Income Allocation	32,908	14,527	(18,381)
Total	\$ 92,908	\$ 74,527	\$ (18,381)
Personnel Certification and Continuing Education			
Testing Fees	\$ 520,000	\$ 496,600	\$ (23,400)
Certificate Renewals	800,000	825,000	25,000
Continuing Education Fees	481,634	435,123	2,600
Interest & Investment Income Allocation	7,200	500	(6,700)
Total	\$ 1,808,834	\$ 1,757,223	\$ (2,500)
Training and Education			
Interest & Investment Income Allocation	\$ 2,574	\$ 1,038	\$ (1,536)
Total	\$ 2,574	\$ 1,038	\$ (1,536)
Event Analysis			
Interest & Investment Income Allocation	\$ 10,296	\$ 3,632	\$ (6,664)
Total	\$ 10,296	\$ 3,632	\$ (6,664)
Situation Awareness			
Interest & Investment Income Allocation	\$ 9,009	\$ 4,150	\$ (4,859)
Total	\$ 9,009	\$ 4,150	\$ (4,859)
E-ISAC			
Third Party Funding (CRISP)	\$ 7,064,343	\$ 7,917,385	\$ 853,042
Miscellaneous Funding	-	60,000	60,000
Interest & Investment Income Allocation	84,360	23,082	(61,278)
Total	\$ 7,148,703	\$ 8,000,467	\$ 851,764
Grand Total	\$ 9,144,177	\$ 9,870,608	\$ 775,542

Interest & Investment Income – The \$142k decrease is due to anticipated lower interest rates in 2022.

Testing Fees and Certificate Renewals – The \$23k decrease in testing fees and \$25k increase in certificate renewals reflects the estimate of the numbers of tests and renewals in 2022.

Third Party Funding (CRISP) – The \$853k increase is due to an increase in participant-paid costs for PNNL for expenses related to new offerings and upgrades, a data backup location, and audit support, and for operational technology (OT) program software licenses and support. CRISP is also anticipating to collect an additional \$300k of revenue from participants to increase funds in the CRISP operating reserve (subject to final approval of CRISP members).

Miscellaneous Funding – The \$60k increase reflects revenue related to E-ISAC’s partnership with the Downstream Natural Gas (DNG) ISAC.

Table B-4 – Personnel

Personnel	2021 Budget	2022 Budget	Increase (Decrease)	
Salaries	\$ 36,636,628	\$ 39,557,528	\$ 2,920,900	8.0%
Payroll Taxes	2,122,568	2,310,836	188,267	8.9%
Benefits	5,703,799	6,038,487	334,688	5.9%
Retirement	3,726,439	4,059,585	333,146	8.9%
Total	\$ 48,189,435	\$ 51,966,435	\$ 3,777,000	7.8%
FTEs	213.38	223.72	10.34	4.8%
Cost per FTE				
Salaries	\$ 171,697	\$ 176,817	\$ 5,120	3.0%
Payroll Taxes	9,947	10,329	382	3.8%
Benefits	26,731	26,991	261	1.0%
Retirement	17,464	18,146	682	3.9%
Total	\$ 225,839	\$ 232,283	\$ 6,445	2.9%

The increase in overall Personnel costs is primarily related to the increase of 10.3 FTEs (see the Personnel discussion in the *Introduction and Executive Summary* for more details) and salary and benefit increase assumptions. The 2022 budget for base salaries assumes a 2.5% increase over actual 2021 base salaries for merit adjustments and up to 0.5% for equity and market adjustments, which is the same assumption used in the 2021 budget. The anticipated increase for medical and dental benefit plan costs in 2022 is 7.0%, which is lower than previous year estimates due to an improved loss ratio trend. No other changes to retirement or other benefit plans have been assumed for 2022.

Table B-5 – Meetings & Travel

Meetings & Travel	2021 Budget	2022 Budget	Increase (Decrease)	
Meetings & Conference Calls	\$ 890,751	\$ 1,132,550	\$ 241,799	27.1%
Travel	1,310,997	1,475,500	164,503	12.5%
Total	\$ 2,201,748	\$ 2,608,050	\$ 406,302	18.5%

As discussed in the *Introduction and Executive Summary*, Meetings & Travel expenses are increasing as NERC plans for a partial return to in-person meetings and related travel in 2022, particularly for the Board, Member Representatives Committee (MRC), Reliability and Security Technical Committee (RSTC), and ERO Enterprise leadership, while continuing to leverage efficiencies of virtual meeting formats for smaller groups.

Table B-6 – Consultants and Contracts

Refer to *Exhibit B – Consultants and Contracts Costs*

Table B-7 – Rent

Office Rent	2021 Budget	2022 Budget	Increase (Decrease)	
Office Rent	\$ 3,329,442	\$ 3,119,677	\$ (209,765)	-6.3%
Maintenance	274,000	123,600	(150,400)	-54.9%
Total	\$ 3,603,442	\$ 3,243,277	\$ (360,165)	-10.0%

As discussed in the *Introduction and Executive Summary*, NERC has been working on long-term lease strategies for its two office locations. The 2022 budget reflects savings over 2021 based on new lease assumptions for the Washington, D.C. office while assuming the existing rent schedule for the Atlanta office as options continue to be explored for that facility. The \$150k decrease in maintenance reflects estimates for these expenses for the new Washington, D.C. office lease and recent operating cost trends for the Atlanta office.

Table B-8 – Office Costs

Office Costs	2021 Budget	2022 Budget	Increase (Decrease)	
Telephone	\$ 330,800	\$ 333,838	\$ 3,038	0.9%
Internet	294,650	325,783	31,133	10.6%
Office Supplies	276,450	131,350	(145,100)	-52.5%
Computer Supplies	140,250	155,250	15,000	10.7%
Software License and Support	8,022,452	8,582,357	559,905	7.0%
Subscription and Publications	363,299	443,894	80,595	22.2%
Dues	142,445	157,850	15,405	10.8%
Postage	10,500	10,500	-	0.0%
Express Shipping	34,700	34,700	-	0.0%
Copying	39,500	39,500	-	0.0%
Audio/Visual and Hardware Lease	282,743	280,000	(2,743)	-1.0%
Equipment Repair/Service Contracts	130,000	130,000	-	0.0%
Bank Charges	28,000	28,000	-	0.0%
Merchant Card Fees	90,000	95,000	5,000	5.6%
Total	\$ 10,185,789	\$ 10,748,022	\$ 562,233	5.5%

Internet costs are increasing \$31k in 2022 due to the addition of circuits for a disaster recovery site for one of the Situation Awareness tools. Office Supplies are decreasing \$145k and Computer Supplies are increasing \$15k to bring these budgets closer to recent actual costs.

Software Licenses and Support includes non-capital software license and support costs, as well as support and service expenses for infrastructure management software, data center co-location, offsite backup of data, and network and security monitoring. The \$560k increase in 2022 is primarily due to software license and support for CRISP OT and analytics (much of which is participant-funded) and annual escalation cost estimates for software used by the program areas and Information Technology (IT), with an increased focus on enhancing NERC's cybersecurity posture.

Subscription and Publications expenses are increasing \$81k in 2022 for resource and research subscriptions to support the Corporate Risk Management (CRM) and Human Resources (HR) areas.

Table B-9 – Professional Services

Professional Services	2021 Budget	2022 Budget	Increase (Decrease)	
Independent Trustee Fees	\$ 1,392,500	\$ 1,580,000	\$ 187,500	13.5%
Trustee Search Fees	50,000	-	(50,000)	-100.0%
Outside Legal	388,500	430,000	41,500	10.7%
Government Relations	-	20,000	20,000	
Accounting and Auditing Fees	155,000	160,000	5,000	3.2%
Insurance Commercial	185,000	284,000	99,000	53.5%
Outside Services	14,100	14,100	-	0.0%
Total	\$ 2,185,100	\$ 2,488,100	\$ 303,000	13.9%

As discussed on page 64, the \$187k increase for Independent Trustee Fees in 2022 is predominately for the addition of one Board member and estimated increases to trustee compensation, subject to the next independent study on trustee compensation scheduled for the end of 2021. The \$50k decrease for Trustee Search Fees is a result of not having to conduct a search for any Board member replacements in 2022.

The increases in Outside Legal, Government Relations, and Accounting and Auditing Fees in 2022 are a result of a return of support that was deferred in 2021 as a part of cost savings efforts.

The \$99k increase for Insurance Commercial in 2022 is to bring the CRISP liability insurance and NERC property and liability insurance budgets closer to recent actual costs and projected estimates.

Table B-10 – Miscellaneous

Miscellaneous Expenses	2021 Budget	2022 Budget	Increase (Decrease)	
Miscellaneous Expense	\$ 10,250	\$ 10,250	\$ -	0.0%
Employee Rewards and Recognition	20,900	21,400	500	2.4%
Employee Engagement	41,000	85,000	44,000	107.3%
Sponsorships	28,000	28,000	-	0.0%
Total	\$ 100,150	\$ 144,650	\$ 44,500	44.4%

The increase of \$44k for Employee Engagement in 2022 is for expenses related to NERC's Employee Resource Groups, which provide staff connection opportunities to advance a culture of diversity and inclusion.

Table B-11 – Other Non-Operating Expenses

Other Non-Operating Expenses	2020 Budget	2021 Budget	Increase (Decrease)	
Property and Other Tax Expense	\$ 60,000	\$ 60,000	\$ -	0.0%
Interest Expense	69,661	75,000	5,339	7.7%
Total	\$ 129,661	\$ 135,000	\$ 5,339	4.1%

Table B-12 – Fixed Assets

Fixed Asset Additions	2021 Budget	2022 Budget	Increase (Decrease)	
Computer & Software CapEx	\$ 2,091,500	\$ 1,268,750	(822,750)	-39.3%
Furniture & Fixtures CapEx	-	-	-	
Equipment CapEx	660,000	750,000	90,000	13.6%
Leasehold Improvements	-	-	-	
Total	\$ 2,751,500	\$ 2,018,750	\$ (732,750)	-26.6%

Computer & Software CapEx is decreasing \$823k primarily due to the planned completion of development for Align in 2021, offset by funding for ongoing enhancements and maintenance for Align and the ERO Secure Evidence Locker (SEL), and a return to investment in NERC’s suite of data management tools that was deferred in 2021 as a part of cost savings efforts. The \$90k increase for Equipment CapEx is for planned IT equipment technology replacements. This table excludes \$2.1M of capital lease assets, which are offset by corresponding lease financing proceeds.

Table B-13 – 2023 and 2024 Projections

Refer to the *Introduction and Executive Summary* section on page 11 and 12

Section C – Non-Statutory Activity

NERC has no non-statutory activities.

Section D – Consolidated Statement of Activities by Program Area															
	Statutory Total	Reliability Standards and Power Risk Issue Strategic Management	Compliance Assurance and Organization Registration and Certification	Event Analysis	Compliance Enforcement	Personnel Certification	Training and Education	Reliability Assessment and Performance Analysis	Situation Awareness	EISAC (Including CRSP)	General and Administrative (Includes Executive and External Affairs)	Legal and Regulatory (Includes Internal Audit and Corporate Risk Management)	Information Technology	Human Resources and Administration	Accounting and Finance
	STATUTORY														
Funding															
ERO Funding															
NERC Assessments	\$ 78,387,280	\$ 9,420,030	\$ 12,552,038	\$ 3,778,518	\$ 6,939,219	\$ -	\$ 1,023,976	\$ 14,700,555	\$ 5,072,463	\$ 24,900,480	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total NERC Funding	\$ 78,387,280	\$ 9,420,030	\$ 12,552,038	\$ 3,778,518	\$ 6,939,219	\$ -	\$ 1,023,976	\$ 14,700,555	\$ 5,072,463	\$ 24,900,480	\$ -	\$ -	\$ -	\$ -	\$ -
Third-Party Funding															
Testing Fees	\$ 7,617,385	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,617,385	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	\$ 1,756,723	\$ -	\$ -	\$ -	\$ -	\$ 1,756,723	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest & Investment Income	\$ 76,500	\$ 10,895	\$ 11,933	\$ 3,632	\$ 6,744	\$ 500	\$ 1,038	\$ 14,527	\$ 4,150	\$ 23,082	\$ -	\$ -	\$ -	\$ -	\$ -
Total Funding (A)	\$ 88,257,888	\$ 9,430,925	\$ 12,563,971	\$ 3,782,150	\$ 6,945,963	\$ 1,757,223	\$ 1,025,014	\$ 14,775,082	\$ 5,076,614	\$ 32,900,947	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses															
Personnel Expenses															
Salaries	\$ 39,557,528	\$ 2,951,243	\$ 3,759,888	\$ 1,297,758	\$ 1,838,076	\$ 318,852	\$ 234,880	\$ 4,377,751	\$ 1,227,161	\$ 8,011,321	\$ 4,346,817	\$ 3,246,030	\$ 4,888,306	\$ 1,943,814	\$ 1,115,631
Payroll Taxes	\$ 2,310,836	\$ 183,584	\$ 224,943	\$ 73,630	\$ 122,697	\$ 23,835	\$ 18,880	\$ 272,752	\$ 76,087	\$ 480,111	\$ 202,803	\$ 173,300	\$ 284,467	\$ 103,781	\$ 69,955
Benefits	\$ 6,038,487	\$ 467,848	\$ 761,083	\$ 205,684	\$ 210,112	\$ 43,222	\$ 49,040	\$ 637,359	\$ 258,757	\$ 1,069,032	\$ 563,000	\$ 460,223	\$ 751,720	\$ 366,445	\$ 194,963
Retirement Costs	\$ 4,059,585	\$ 324,253	\$ 416,398	\$ 145,524	\$ 204,099	\$ 35,638	\$ 26,357	\$ 485,536	\$ 134,973	\$ 869,944	\$ 247,198	\$ 349,224	\$ 520,772	\$ 178,443	\$ 121,227
Total Personnel Expenses	\$ 51,966,435	\$ 3,926,928	\$ 5,162,312	\$ 1,722,596	\$ 2,374,984	\$ 421,547	\$ 329,158	\$ 5,773,397	\$ 1,696,978	\$ 10,430,408	\$ 5,359,819	\$ 4,228,776	\$ 6,445,264	\$ 2,592,483	\$ 1,501,785
Meetings and Travel Expenses															
Meetings & Conference Calls	\$ 1,132,550	\$ 65,000	\$ 82,000	\$ 35,000	\$ 7,000	\$ 32,000	\$ 2,000	\$ 180,000	\$ 70,000	\$ 102,000	\$ 388,750	\$ 10,000	\$ 148,800	\$ 5,000	\$ 5,000
Travel	\$ 1,475,500	\$ 115,000	\$ 251,000	\$ 91,000	\$ 30,000	\$ 14,000	\$ 3,500	\$ 207,000	\$ 22,000	\$ 222,000	\$ 360,000	\$ 55,000	\$ 60,000	\$ 20,000	\$ 25,000
Total Meetings and Travel Expenses	\$ 2,608,050	\$ 180,000	\$ 333,000	\$ 126,000	\$ 37,000	\$ 46,000	\$ 5,500	\$ 387,000	\$ 92,000	\$ 324,000	\$ 748,750	\$ 65,000	\$ 208,800	\$ 25,000	\$ 30,000
Operating Expenses, excluding Depreciation															
Consultants & Contracts	\$ 13,674,800	\$ 158,960	\$ 345,000	\$ 118,158	\$ 249,000	\$ 463,188	\$ 100,000	\$ 681,227	\$ 15,000	\$ 8,325,861	\$ 120,000	\$ 310,000	\$ 1,733,406	\$ 870,000	\$ 185,000
Office Rent	\$ 3,243,277	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,243,277	\$ -	\$ -	\$ -	\$ -	\$ -
Office Costs	\$ 10,749,222	\$ 52,850	\$ 648,666	\$ 50,500	\$ 639,816	\$ 166,600	\$ 103,000	\$ 640,675	\$ 1,217,412	\$ 1,854,095	\$ 402,950	\$ 144,600	\$ 4,315,828	\$ 268,730	\$ 243,300
Professional Services	\$ 2,488,100	\$ -	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ 190,000	\$ 1,774,000	\$ 275,000	\$ -	\$ 9,100	\$ 225,000
Miscellaneous	\$ 144,650	\$ 2,300	\$ 3,250	\$ 1,600	\$ 1,900	\$ 300	\$ 700	\$ 4,600	\$ 1,100	\$ 9,750	\$ 27,550	\$ -	\$ 3,300	\$ 87,000	\$ 1,300
Total Operating Expenses, excluding Depreciation	\$ 30,300,049	\$ 214,110	\$ 997,116	\$ 170,258	\$ 905,716	\$ 630,088	\$ 203,700	\$ 1,326,502	\$ 1,233,512	\$ 10,379,706	\$ 5,567,777	\$ 729,600	\$ 6,052,534	\$ 1,234,830	\$ 654,600
Total Direct Expenses															
	\$ 84,874,534	\$ 4,321,038	\$ 6,492,428	\$ 2,018,854	\$ 3,317,700	\$ 1,097,635	\$ 538,358	\$ 7,486,899	\$ 3,022,490	\$ 21,134,114	\$ 11,676,346	\$ 5,023,376	\$ 12,706,598	\$ 3,852,313	\$ 2,186,385
Indirect Expenses															
	\$ -	\$ 4,916,148	\$ 5,384,352	\$ 1,638,716	\$ 3,043,329	\$ 702,307	\$ 468,205	\$ 6,554,863	\$ 1,872,818	\$ 10,944,281	\$ (11,736,346)	\$ (5,023,376)	\$ (12,726,598)	\$ (3,852,313)	\$ (2,186,385)
Other Non-Operating Expenses															
	\$ 135,000	\$ -	\$ 27,500	\$ -	\$ 27,500	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ -	\$ 20,000	\$ -	\$ -
Total Expenses (B)	\$ 85,009,534	\$ 9,237,186	\$ 11,904,280	\$ 3,657,570	\$ 6,388,529	\$ 1,799,942	\$ 1,006,562	\$ 14,041,762	\$ 4,895,308	\$ 32,078,395	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A-B)	\$ 3,248,354	\$ 193,740	\$ 659,691	\$ 124,580	\$ 557,434	\$ (42,719)	\$ 18,451	\$ 733,320	\$ 181,306	\$ 822,551	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 4,118,750	\$ 397,858	\$ 695,750	\$ 192,619	\$ 496,293	\$ 56,837	\$ 37,891	\$ 1,005,478	\$ 259,065	\$ 976,958	\$ -	\$ -	\$ -	\$ -	\$ -
Financing Activity															
Loan or Financing Lease - Borrowing (-)	\$ (2,100,000)	\$ (290,610)	\$ (318,287)	\$ (96,870)	\$ (179,901)	\$ (41,516)	\$ (27,677)	\$ (387,479)	\$ (110,708)	\$ (646,952)	\$ -	\$ -	\$ -	\$ -	\$ -
Loan or Financing Lease - Principal Payments (+)	\$ 1,000,000	\$ 86,491	\$ 282,228	\$ 28,830	\$ 241,042	\$ 12,356	\$ 8,237	\$ 115,321	\$ 32,949	\$ 192,545	\$ -	\$ -	\$ -	\$ -	\$ -
Net Financing Activity (D)	\$ (1,100,000)	\$ (204,119)	\$ (36,058)	\$ (68,040)	\$ 61,141	\$ (29,160)	\$ (19,440)	\$ (272,158)	\$ (77,759)	\$ (454,407)	\$ -	\$ -	\$ -	\$ -	\$ -
Total Budget (=B+C+D)	\$ 88,028,284	\$ 9,430,925	\$ 12,563,971	\$ 3,782,150	\$ 6,945,963	\$ 1,827,619	\$ 1,025,014	\$ 14,775,082	\$ 5,076,614	\$ 32,600,947	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Working Capital (=A-B-C-D)	\$ 229,604	\$ -	\$ -	\$ -	\$ -	\$ (70,396)	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	223.72	19.74	21.62	6.58	12.22	2.82	1.88	26.32	7.52	43.95	18.80	15.98	27.50	11.28	7.52

Exhibit A – Application of NERC Section 215 Criteria

DISCUSSION OF HOW THE NERC MAJOR ACTIVITIES IN THE 2022 BUSINESS PLAN AND BUDGET MEET THE NERC WRITTEN CRITERIA FOR DETERMINING WHETHER A RELIABILITY ACTIVITY IS ELIGIBLE TO BE FUNDED UNDER FEDERAL POWER ACT SECTION 215

I. Introduction

This Exhibit discusses how the major activities in NERC’s 2022 Business Plan and Budget meet the NERC written criteria for determining whether a reliability activity is eligible to be funded under §215 of the Federal Power Act (FPA §215). This Exhibit is intended to satisfy Recommendation No. 38 resulting from the financial performance review of NERC conducted by the Federal Energy Regulatory Commission’s (Commission’s) Division of Audits (DA) in 2012–2013 and adopted by the Commission in its November 2, 2012 order on NERC’s 2013 Business Plan and Budget.¹⁴ NERC submitted the written criteria to the Commission in a compliance filing dated February 21, 2013 in Docket No. FA11-21-000.¹⁵ The Commission approved the NERC written criteria, with modifications, in an order issued in that docket on April 18, 2013.¹⁶ The NERC written criteria as used in this Exhibit incorporate the modifications specified in the Compliance Order.¹⁷

II. Reliability Standards and Power Risk Issue Strategic Management 2022 Major Activities

The major activities of Reliability Standards and Power Risk Issue Strategic Management (PRISM) are described at pages 13–16 of the 2022 Business Plan and Budget. Reliability Standards and PRISM is comprised of the Reliability Standards group, which is focused specifically on the development and improvement of reliability standards; and the PRISM group, which supports Reliability Standards by providing technical support and develops, supports, and prioritizes the ERO Risk Registry. Reliability Standards carries out the ERO’s responsibility to develop, adopt, obtain approval of, and modify as and when appropriate, mandatory Reliability Standards to assure the Bulk Electric System (BES) is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damages to major equipment, and limit interruptions. This group focuses on expanding a risk-based approach to its projects, to ensure that Reliability Standards are clear, timely, consider costs, effective in mitigating material risks, and do not unnecessarily burden industry with administrative requirements and/or detract from reliability or security. The major activity of PRISM is to leverage in-house expertise on Reliability Standards and standards development to implement cross-cutting efforts among NERC functions and the NERC standing and technical committees, with emphasis on developing NERC’s positions on emerging technologies and the effect of these technologies on Reliability Standards. The PRISM group provides in-house training on Reliability Standards and conducts statistical analyses concerning the results of standards to identify potential weaknesses, redundancies, and overall necessity.

¹⁴ *North American Electric Reliability Corporation, Order Accepting 2013 Business Plan and Budget of the North American Electric Reliability Corporation and Ordering Compliance Filing*, 141 FERC ¶ 61,086 (2012) (“2013 Budget Order”). Recommendation 38, as adopted in the 2013 Budget Order, is: “In its annual business plan and budget filings, [NERC should] provide an explanation as to why the proposed activities to be undertaken by each program area for the budget year are statutory, including, at a minimum: a description and the purpose of the major activities to be taken by each program area and an explanation for why the activity is a statutory activity.” *Id.* at P 16.

¹⁵ *Compliance Filing of the North American Electric Reliability Corporation in Response to Paragraph 30 of November 2, 2012 Commission Order – NERC Written Criteria for Determining Whether a Reliability Activity is Eligible to be Funded Under Federal Power Act Section 215*, filed February 1, 2013 in Docket No. FA 11-21-000.

¹⁶ *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013) (“Compliance Order”).

¹⁷ For ease of reference, the complete NERC written criteria, as modified in accordance with the Compliance Order, are provided at the end of this Exhibit.

The major activities for the Reliability Standards program include (1) providing project management and leadership to the reliability standard development process to deliver high quality, continent-wide Reliability Standards, both new and modified, to provide solutions to address reliability risks identified through the Reliability Risk Management Process, including standard development outreach activities, facilitation of drafting team activities, drafting support, assisting drafting teams in adhering to the processes in the *Standard Processes Manual*, and ensuring that the quality of documents produced are appropriate for approval by industry and the NERC Board; (2) facilitating continent-wide industry engagement in the standard development processes; and (3) conducting industry balloting on standards, disseminating information on standards and the standard development processes, and supporting regulatory filings and proceedings relating to standards. In response to input from regulatory authorities, Regional Entities, and industry stakeholders, the Reliability Standards program gathers industry feedback during the standard development and revision processes on costs of proposed standards and the risks they are intended to address. The PRISM group interacts with stakeholder groups, including the NERC Reliability and Security Technical Committee (RSTC), and ensures that the processes to address Standards Authorization Requests and Requests for Interpretations of standards are coordinated and reviewed for technical accuracy and completeness.

For 2022, the major activities of the Reliability Standards program will continue to focus on (1) selection of standards projects to be undertaken based on the nature of the reliability issue, and whether a standard or another solution is most appropriate to address the issue; (2) addressing FERC directives and responding to FERC orders and special reports as necessary through the standards development process; (3) continuing to implement the results of the comprehensive review of standards initiated in 2018, through projects to modify or retire standards, including analyzing the need to retire or enhance standards requirements based on operational experience, and also including review of standards development processes for efficiency modifications; and (4) facilitating smooth transitions to new standards, including by working with the other NERC program areas and the Regional Entities to develop guidelines, webinars, and other activities to support auditor and industry training for new standards. In 2022, this program will continue to work with stakeholders to determine whether there is a need to make further improvements to Reliability Standards through periodic reviews that include measured review of the contents of standards, considering whether the requirements could more effectively mitigate risks to the Bulk Power System (BPS); whether the standards are results-based and drafted with high quality; whether the standards are concise or if the number of requirements could be reduced; and whether compliance expectations are clear.

Activities of the PRISM group for 2022 include completing NERC position documents for Distributed Energy Resources (DER), Interconnection Reliability Operating Limits, System Operating Limits, and Energy Adequacy; reporting on statistical analyses around misoperations; conducting Reliability Standards training for NERC and Regional Entity staff; refining the cross-cutting tool to track Reliability Issues Steering Committee (RISC) issues and work plan items from NERC and Regional Entity committees while prioritizing risks in the Risk Registry; measuring the effectiveness of the Electric Gas Working Group industry guidelines on fuel assurance; supporting the FERC/NERC inquiry into the 2021 Texas Winter Event; and executing the work plan for the Energy Reliability Assessment Task Force (ERATF). PRISM will continue to support Reliability Standards by providing technical support during the development process.

The major activities of the Reliability Standards and PRISM program satisfy the following criteria:

- I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC Rules of Procedure (ROP)?

- I.B: Is the activity necessary or appropriate for providing guidance and assistance to Regional Entities in carrying out Regional Reliability Standards development activities?
- I.C: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated?
- I.D: Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures, and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, (iii) industry personnel?
- II.F.1: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (ii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents.
- IV: Is the activity one that was required or directed by a Commission order issued pursuant to §215? (Reliability Standards development projects are often initiated in response to directives in Commission orders).
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for the Reliability Standards Program are §300 and Appendix 3A.)
- VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
- IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?
- X. Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

III. Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement 2022 Major Activities

The major activities of Compliance Assurance and Organization Registration and Certification and of Compliance Enforcement are described on pages 18–22 and 25–26 of the 2022 Business Plan and Budget.

The Compliance Assurance group works collaboratively with the Regional Entities to ensure effective implementation of risk-based compliance monitoring under the Compliance Monitoring and Enforcement Program (CMEP) across the ERO Enterprise. This group’s activities include the following major activities and functions: (1) oversight of the Regional Entities’ implementation of the risk-based compliance monitoring program and the NERC ROP, including ensuring that Regional Entities monitor registered entities for compliance based on customized compliance oversight plans (COPs) for each registered entity;

(2) development and execution of the annual CMEP Implementation Plan; (3) oversight of use of necessary compliance-related processes, procedures, information technology (IT) platforms, tools and templates; (4) development and delivery of education and training for ERO Enterprise staff; (5) training and outreach activities for the Critical Infrastructure Protection (CIP) Reliability Standards and subsequent enhancements to support industry compliance and security; (6) coordinating with the Reliability Standards program to assist in smooth transition for standards from development to enforceability and to provide feedback on risks seen in the field that are not addressed by a standard, as well as information on whether a standard is too broad; and (7) supporting Regional Entity and industry committees, working groups and task forces, such as the ERO Risk, Performance, and Monitoring Group (NERC and Regional Entity collaboration group), NERC Compliance and Certification Committee (CCC), and NERC RSTC. Ensuring successful implementation of the risk-based CMEP is the priority of Compliance Assurance's oversight plan for Regional Entities. Compliance Assurance provides training to Regional Entity staffs on the elements of risk-based compliance monitoring, including enhancements to registered entities' Individual Risk Assessments (IRA), internal controls reviews, COP development, and Reliability Standards monitoring. In addition, in 2022 Compliance Assurance will continue to emphasize oversight relating to integrating the Align application into CMEP activities.

The ongoing and new major activities of the Compliance Assurance group for 2022 will include: (1) as on-site compliance monitoring activities resume, working with Regional Entities to ensure that 2022 activities are risk-informed and evaluate 2020 and 2021 experiences; (2) continuing to mature the risk-based compliance program, including ongoing oversight of the risk-based CMEP, IRAs, internal controls, coordinated oversight of Multi-Region Registered Entities (MRREs), and ensuring that COPs are addressing the relevant risks and inform Regional Entity CMEP planning; (3) working with NERC Enforcement and IT and with Regional Entities to maintain and enhance the Align and ERO SEL tools; (4) supporting continued successful implementation of the Cyber Security Supply Chain Risk Management Reliability Standard; (5) supporting the continued successful implementation of CIP V5 standards and subsequent enhancements as they become effective; (6) monitoring and supporting effective implementation and monitoring of the Physical Security Reliability Standard; (7) enhancing and implementing training to support monitoring of compliance with Reliability Standards, integrating principles from the Compliance Monitoring Competency Guide; (8) continuing feedback to the Reliability Standards group through coordination between the standards and compliance functions to allow for clear stakeholder implementation of standards and feedback on risks seen in the field, and supporting this effort through a common set of Reliability Standard Audit Worksheets, guidance, and outreach; (9) continuing to focus on how registered entities have mitigated reliability and security risks while achieving compliance with Reliability Standards, including internal controls; (10) supporting international CMEP activities including reliability and security subject matter expertise and outreach; and (11) providing support and leadership to applicable committees and subcommittees including the CCC.

Organization Registration and Certification manages the Organization Registration and Certification Program (ORCP). Organization Registration identifies and registers BPS users, owners, and operators that are responsible for performing specific reliability functions to which Reliability Standards requirements are applicable. Organization Certification ensures that an applicant to be a Reliability Coordinator (RC), Balancing Authority (BA), or Transmission Operator (TOP) has the tools, processes, training, and procedures to demonstrate its ability to become certified and operational for the applicable functions. Organization Registration and Certification works with the CCC's Organization Registration and Certification Subcommittee, which oversees the ORCP, and provides training, guidance, and outreach to stakeholders through NERC and Regional Entity webinars and other forums as well as on an individual basis with entities. Organization Registration and Certification is involved in development and implementation of the Align-ERO SEL and the Centralized Organization Registration ERO System (CORES)

applications, including in particular development, roll-out, and maintenance of CORES, with continued focus on functionality for Coordinated Functional Registrations (CFRs). Organization Registration and Certification also processes registration change requests, including NERC-led review panels and BES Exceptions. Organization Registration and Certification’s responsibilities include oversight of the Regional Entities’ implementation of the Registration and Certification programs; leading NERC-led Review Panel proceedings; oversight of the use of necessary processes, procedures, IT platforms, tools, and templates; leading and supporting Regional Entity and industry committees, working groups, and task forces, including the ERO Organization Registration and Certification Group, the NERC CCC, and the CCC Organization Registration and Certification subcommittee; maintaining the NERC Compliance Registry and adhering to NERC ROP Section 500 and ROP Appendices 5A, 5B and 5C; and providing training on IT applications, including CORES and the CFR tool, to Regional Entities and registered entities.

Compliance Enforcement is responsible for overseeing enforcement processes, the application of Penalties or sanctions, and activities to mitigate and prevent recurrence of noncompliance with Reliability Standards. This group works collaboratively with the Regional Entities to ensure consistent and effective implementation of the risk-based CMEP. It also focuses on ensuring that the ERO Enterprise dedicates resources to the matters that pose the greatest risk to reliability. Compliance Enforcement monitors Regional Entities’ enforcement processes and provides oversight over the outcomes of such processes, to ensure alignment across the ERO Enterprise; collects and analyzes compliance enforcement data and trends to help identify emerging risks to the BPS and inform the development of enforcement policies and processes; files Notices of Penalty and other disposition documents associated with noncompliance discovered through Regional Entity or NERC-led CMEP activities; collaborates with other NERC departments, including Reliability Standards, Compliance Assurance, and Event Analysis; and delivers training to ERO Enterprise staff and registered entities and supports other outreach efforts. During 2022, the major activities of Compliance Enforcement will include: (1) identifying and mitigating the greatest risks to reliability and security; (2) supporting enhancement of the Align and ERO SEL tools, which are being released in a series of releases during 2021; (3) expanding the risk-based focus on Enforcement; (4) sustaining and expanding stakeholder outreach; and (5) with Regional Entity and stakeholder feedback, continue evaluating compliance monitoring and enforcement processes for efficiency.

The major activities of Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement satisfy the following criteria:

- I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC ROP?
- I.C: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated?
- II. Is the activity necessary or appropriate for the monitoring and enforcement of compliance with Reliability Standards?
 - A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the BPS that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?

- B: Is the activity necessary or appropriate for the Certification of RCs, TOPs, and BAs as having the requisite personnel, qualifications and facilities and equipment needed to perform these reliability functions in accordance with the applicable Requirements of Reliability Standards?
- D: Is the activity necessary or appropriate for conducting, participating in or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?
- E: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards.
- F: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents. (2) Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the process? This includes development of guidance documents. (3) Disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, “lessons learned” information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of BPS major events, off-normal occurrences and near miss events, and other BPS monitoring activities? (4) Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?
- IV: Is the activity one that was required or directed by a Commission order issued pursuant to §215? (FERC orders directed NERC to develop and implement a revised definition of “Bulk Electric System” and a procedure for requesting and receiving exceptions from the BES definition, and subsequently approved NERC’s proposed revised BES definition and its proposed BES exception procedure.)
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for these major activities are §400 and 500 and Appendices 4B, 4C, 5A, 5B and 5C.)
- VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
- IX: Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in the activities encompassed by one or more of the other criteria?

- X: Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

IV. Reliability Assessments and Performance Analysis 2022 Major Activities

The major activities of Reliability Assessments and Performance Analysis (RAPA) are described at pages 29–35 of the 2022 Business Plan and Budget. RAPA comprises four primary groups: (1) Reliability Assessments and Technical Committee (RATC); (2) Performance Analysis (PA); (3) Power System Analysis (PSA) and Advanced System Analytics and Modeling (ASAM); and (4) BPS Security and Grid Transformation (SGT).

The RATC group, which includes Reliability Assessment staff and the NERC staff secretaries of the RSTC, carries out the ERO’s responsibility to conduct assessments of the reliability and adequacy of the BPS and associated emerging reliability risks, as well as other reliability issues requiring in-depth analysis. The RA program is governed by the requirements and procedures in NERC ROP 801-805. Annual reports and assessments produced by this group include the Long-Term Reliability Assessment (supplemented by the Probabilistic Assessment), the Summer and Winter Reliability Assessments, and Special Reliability Assessments that are selected based on high risk issues requiring an independent assessment from the ERO. The NERC RSTC and its subgroups provide oversight, guidance, and leadership essential to enhancing BPS reliability; the NERC staff secretaries of the RSTC coordinate and administer these activities and efforts. In addition to developing the annual and other assessments, the major ongoing activities of the RATC include focusing on ensuring effective Essential Reliability Services (ERS); advancing the value of the seasonal reliability assessments, including assessing the energy management plans and sufficiency for the upcoming season; advancing probabilistic assessments and evaluations of energy assurance and energy management plans (including plans for managing energy requirements during extreme weather); and enhancing ERO Enterprise-wide effectiveness and efficiency of reliability assurance-related functions. In addition, RATC will support the newly-created ERATF in analyzing energy adequacy challenges resulting from fundamental changes in electricity supply due to decarbonization efforts, including higher levels of variable and energy-limited resources and decreasing levels of dispatchable synchronous generation; and will work with EPRI, DOE, Natural Resources Canada, and external research partners to support development of resource adequacy processes and tools that can more effectively evaluate energy adequacy in light of these changes to the BPS.

PA monitors the performance of and identifies risks to reliability of the BPS through analyzing data from industry and measuring historic trends, in four areas of BPS operations: transmission, generation, protection system misoperations, and demand response. The PA program is governed by the requirements and procedures in NERC ROP 801, 809 and 811. Analysis performed by PA includes identifying potential risks that may indicate a need to develop remediation strategies, improvements to reporting applications, and new data collection or analysis tools which may be used to create, retire, or revise Reliability Standards. These analyses provide the foundation for the annual State of Reliability (SOR) report and other analytical reports and technical papers to the industry. PA staff leads the ERO, technical committees, and stakeholder process to publish the SOR report examining year-over-year performance indicators of the grid. PA also develops the business requirements for all new reliability information data systems, specifically those required by NERC ROP 1600 data requests; PA analysts work with internal and external software developers to support creation, testing, and implementation of data systems. PA will continue to evaluate reliability trends that identify reliability risks by analyzing generation and transmission availability data, and integration of event analysis and misoperations. PA is also developing reporting requirements for solar and associated energy storage data collection.

PSA staff provide technical leadership and support in the areas of resource and demand balancing and system analysis and modeling, including technical support for the balancing (BAL) and modeling (MOD) Reliability Standards. PSA assists the RATIC in its independent reliability assessments; performs Interconnection-wide analysis of steady state and dynamic conditions, including frequency, ERS, stability, short circuit ratio, and oscillatory behavior aspects including support for the Resources Subcommittee and its subgroups and submission of the Frequency Report Annual Analysis (FRAA) to FERC; and assures identification of BES electrical elements necessary for reliable operation such that they are subject to Reliability Standards.

ASAM staff provides support for development and improvement of long-term, sustainable interconnection-based power flow, dynamic, and load models necessary to reflect actual BES reliability performance and dynamic conditions, in order to support maintenance of reliable operation of the BPS. ASAM provides guidance on appropriate use of new and existing models to study emerging risks; advances understanding of power system characteristics and behaviors by gathering larger phasor measurement unit data sets for advanced data analytics and modeling improvements; promotes understanding of the need and available methods for probabilistic studies to augment deterministic studies in system planning, including support for the Probabilistic Assessment Working Group; conducts advanced system studies of increasing penetrations of new resource technologies or new technologies facilitating these penetrations, as well as piloting use of new resource models for system simulations; publishes Institute of Electrical and Electronic Engineers (IEEE) and other industry papers to promote continual advancement of BPS knowledge and understanding; and supports research projects, including those of the Carnegie Mellon Industry Center, the Power Systems Energy Research Center, the Department of Energy (DOE) North American Energy Resilience Model, and the DOE-Electric Power Research Institute (EPRI)-NERC project advancing modeling and protection for solar inverter-based resources. ASAM also provides advanced statistical analysis support for the SOR report and various reliability assessments; the FRAA report; analytical review of Reliability Standard effectiveness; and various reports on an emergent basis each year. ASAM also publishes IEEE papers that advance and gain academic acceptance of new concepts in statistical methods relative to the BPS.

PSA's and ASAM's ongoing major activities include developing technical analyses in key reliability area to address areas of concern, including frequency response, short-circuit strength, inter-area oscillation, DER integration, and system interdependencies such as gas/electric and communications/electric, in order to evaluate BPS characteristics, behavior and performance due to the changing resource mix and integration of new technologies; continuing to explore use of state-of-the-art software to conduct power system analysis; conducting detailed forensic analysis of significant system disturbances; and providing technical expertise, research, and feedback to the industry, including those that support development of key reliability planning-related Reliability Standards. Ongoing major activities also include providing industry insight on modeling improvements through a State of Modeling report; in coordination with the Inverter-Based Resource Performance Task Force, performing event analyses and investigating abnormal performance of inverter-based resources to develop industry recommendations and address potential reliability gaps; supporting industry in reliable integration of increased levels of DER by providing technical guidance on key reliability impacts and developing recommended modeling, planning, and operations guidelines to ensure BPS reliability; supporting industry adoption and advancement of synchrophasor technology through the Synchronized Measurement Subcommittee; supporting industry understanding and expertise in power plant modeling through the System Analysis and Modeling Subcommittee's Power Plant Modeling and Verification Task Force; advancing improvements in dynamic load modeling in support of industry stability studies for planning and real-time reliability assessments; supporting studies and technical positions on the changing nature of end-use loads; performing annual assessments of case quality and fidelity on interconnection-wide cases released by the MOD-032 designers; addressing

deficiencies in interconnection-wide models and providing industry education on key modeling topics; providing a report of results from a Composite Reliability Study using probabilistic or near-probabilistic methods for transmission and resources; supporting a Battery Storage Assessment using the WECC/NERC Battery Study of the Western Interconnection to determine the adequacy of battery energy injection to support frequency response and primary frequency reserve margin; and conducting advanced statistical studies in support of the Standards Efficiency Review and the SOR report.

SGT provides technical leadership and coordination for stakeholder efforts relating to security integration and grid transformation topics, including by developing and promoting strategies for physical and cyber security to be integrated with conventional grid planning, operations, design, and restoration activities. SGT coordinates a number of technical stakeholder groups in areas of security and emerging grid transformation issues. SGT staff are responsible for coordinating several stakeholder groups under the RSTC; integrating cyber security into all aspects of system planning, operations and restoration; providing vision and strategic leadership for the ERO Enterprise on cyber security during planning, operations, and recovery horizons; supporting efforts to advance the RISC’s security risk mitigation recommendations, helping identify security-related risks, and engaging in efforts to mitigate those risks; engaging with industry stakeholders and forums to advance and enable new technologies in a secure manner; supporting standards development processes on engineering and security-related topics; and coordinating with E-ISAC on topics relating to security risks.

The RAPA groups work closely with other governmental and industry organizations, including the U.S. DOE, EPRI, IEEE, Institute of Nuclear Power Operations, North American Transmission Forum, North American Generator Forum, Interstate Natural Gas Association of America, Natural Gas Supply Association, Canadian Electricity Association, and International Council on Large Electric Systems.

In 2022, the RAPA groups will continue the efforts described above with particular focus on risk issues identified in the latest RISC report; and on assessments and technical reports under direction of the RSTC; including these high-risk issues: unacceptable inverter performance; increased amounts of DER; energy sufficiency; extreme weather resilience; and cyber security in planning and operations. In addition, the 2022 budget includes funding for various stages of development of several new or enhanced software applications for collection and integration of data, including an enhanced system to manage reliability assessment data; enhancements to systems for conventional generation and transmission availability data; and new and enhanced systems for solar and wind generation availability data.

The major activities of RAPA satisfy the following criteria:

- I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC ROP?
- I.C: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (1) Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System based on such measurements; and/or identifying approaches to mitigating or eliminating such risks? (2) Monitoring, event analysis and investigation of BPS major events, off-normal occurrences and near miss events?

- II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the BPS that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
- II.E.: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards, such as: (1) Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks? (2) Monitoring, event analysis and investigation of BPS major events, off-normal occurrences, and near miss events?
- III.A: Is the activity necessary or appropriate for the preparation or dissemination of long-term, seasonal, and special assessments of the reliability and adequacy of the BPS?
- III.B: Is the activity necessary or appropriate for measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
- III.C: Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the BPS in connection with BPS major events and off-normal occurrences, but not real-time operational control of the BPS?
- III.D: Is the activity necessary or appropriate for awareness of circumstances on the BPS and to contribute to understanding risks to reliability?
- III.E: Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS?
- III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the BPS?
- V. Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for major activities of the RAPA program are §801-806 and §809-811.)
- VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
- IX: Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

- X: Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?

V. Situation Awareness 2022 Major Activities

The major activities of Situation Awareness are described at pages 37–39 of the 2022 Business Plan and Budget. The Situation Awareness group, along with the Regional Entities, monitors BPS conditions, significant occurrences and emerging risks, and threats across the 16 Reliability Coordinator regions in North America, to maintain an understanding of conditions and situations that could impact reliable operations. Situation Awareness supports development and publication of NERC Alerts and awareness products, and facilitates information sharing among industry, Regional Entities and government during crisis situations and major system disturbances. Situation Awareness assists the NERC RSTC’s Real-Time Operating Subcommittee in enhancing BPS reliability with efforts to provide operational guidance to industry by managing NERC-sponsored technology tools and services that support operational coordination, as well as by providing technical support and advice. Situation Awareness uses and supports reliability-related tools in support of Situation Awareness activities, including Resource Adequacy (Area Control Error Frequency); Inadvertent Interchange; Frequency Monitoring Network; Intelligent Alarms; PowerIQ and PowerRT; Situation Awareness; RC Information System; and NERC Alerts (secure alerting system); as well as data collection and analysis tools.

The ongoing and new major activities of Situation Awareness for 2022 include: ensuring the ERO is aware of all BES events above a threshold of impact; focusing on grid transformation, extreme natural events, and security vulnerabilities (cyber and physical); enabling the sharing of information and data to facilitate wide-area situational awareness; during crisis situations, facilitating the exchange of information among industry, Regions, and U.S. and Canadian governments; keeping the industry informed of emerging reliability threats and risks, including any expected actions; administering the NERC Alerts process as specified in NERC ROP 810 to issue Advisory (Level 1) Alerts on significant and emerging reliability and security related topics, and facilitate the tracking of actions specified in Recommendation (Level 2) and Essential Action (Level 3) Alerts; continuing to set the conditions to bring in limited streaming synchrophasor data for wide-area situational awareness and event triage applications; examining the importance of having visibility to natural gas situation awareness through enhancing understanding of the tools and methods that are and will be available to monitor natural gas availability, transmission, and distribution across the BES; and continuing to focus on enhancements to the recently upgraded situation awareness application. NERC is also developing a disaster recovery site for the situation awareness tool. In 2022, Situation Awareness will also continue to enhance natural gas situational awareness and work with E-ISAC to increase situational awareness related to physical security.

The major activities of the Situation Awareness group satisfy the following criteria:

- I.C.2: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (2) Monitoring, event analysis and investigations of BPS major events, off-normal occurrences and near-miss events?
- II.G: Is the activity necessary or appropriate for the development and provision of tools and services that are useful for the provision of adequate reliability, because they relate specifically to compliance with existing Reliability Standards and they proactively help avert Reliability

Standard violations and BPS disturbances?

- III.C. Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the BPS in connection with BPS major events and off-normal occurrences, but not real-time operational control of the BPS?
- III.D: Is the activity necessary or appropriate for awareness of circumstances on the BPS System and to contribute to understanding risks to reliability?
- III.E: Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS?
- III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the BPS?
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for these major activities are ROP 810 and 1001.)
- IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

VI. Event Analysis 2022 Major Activities

The major activities of Event Analysis are described at pages 41–42 of the 2022 Business Plan and Budget. Event Analysis performs assessments of the reliability and adequacy of the BES to identify potential issues related to system, equipment, entity, and human performance that may indicate a need to develop remediation strategies, action plans, or data used to revise or retire Reliability Standards or consider new Reliability Standards. Event Analysis analyzes and determines the causes of events, promptly assures tracking of corrective actions, and provides lessons learned to the industry. Event Analysis analyzes all voluntarily reportable events for sequence of events, root cause, risks to reliability, and mitigation and keeps the industry well-informed of system events, emerging trends, risk analysis, lessons learned, and expected actions. Event Analysis conducts in-depth analyses of on the order of 150 events per year on average, and also conducts calls facilitated by Regional Entities with registered entities to discuss in detail and finalize root and contributing causes for the events analyzed. Event Analysis identifies human error risks and precursor factors that allow human error to affect system reliability, and educates industry regarding such risks, precursors, and related mitigation methods. Event Analysis works in collaboration with and supports the activities of other groups involved in human performance analysis, including the ERO Enterprise human performance groups, the RSTC’s Event Analysis Subcommittee, and others.

Ongoing and new major activities for 2022 for the Event Analysis group include: (1) Working with Regional Entities to obtain and review information from registered entities on qualifying events and disturbances in order to advance awareness of events above a threshold level; facilitating analysis of root and contributing causes, risks to reliability, wide-area assessments and remediation efforts; and disseminating information regarding events in a timely manner. (2) Ensuring that all reportable events are analyzed for sequence of events, root cause, risk to reliability, and mitigation. (3) Continuing to refine risk-based methodologies to support better identification of reliability risks, including use of more sophisticated

cause codes for analysis. (4) Conducting events (webinars, workshops and conference support) to inform industry and the ERO of lessons learned, root cause analysis, trends, human performance, and extreme weather preparedness and recommendations, including events like the annual NERC Monitoring and Situational Awareness Conference and the annual Electric Power Human Performance Improvement Symposium. (5) Developing reliability recommendations and Alerts as needed, and tracking industry accountability for critical reliability recommendations. (6) Ensuring that industry is well informed of system events, emerging trends, risk analysis, lessons learned, and expected actions. (7) Conducting major event analysis and reporting of major findings and recommendations that will improve reliability. The Event Analysis department will also support several top priority reliability risk projects being led by RAPA. Additionally, in 2022, Event Analysis will continue to update and upgrade data collection and storage capabilities and capacity for its data management system; as well as working with the PA group to improve the linkage between performance and event analysis data to enhance the ability to conduct event analyses and to identify key areas for trend analyses across multiple databases. Event Analysis will continue to lead the planning and execution of human performance events such as the annual ERO Enterprise and Industry-wide Electric Power Human Performance Improvement Symposium.

The major activities of the Event Analysis group satisfy the following criteria:

- I.C.2: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (2) Monitoring, event analysis and investigations of BPS major events, off-normal occurrences and near-miss events?
- II.E.2: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards, such as: (2) Monitoring, event analysis and investigation of BPS major events, off-normal occurrences, and near miss events?
- II.F.3: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (3) Disseminating, through workshops, webinars, Advisories, Recommendations, Essential Actions, and other publications; “lessons learned” information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities; monitoring and investigation of BPS major events, off-normal occurrences and near miss events, and other BPS monitoring activities?
- III.B. Is the activity necessary or appropriate for measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
- III.C. Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users,

- owners, and operators of the BPS in connection with BPS major events and off-normal occurrences, but not real-time operational control of the BPS?
- III.D. Is the activity necessary or appropriate for awareness of circumstances on the BPS and to contribute to understanding risks to reliability?
- III.E. Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS?
- III.F. Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the BPS?
- V. Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for these major activities are §807-808 and §810-811 and Appendix 8.)
- VI. Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
- IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

VII. Electricity Information Sharing and Analysis Center 2022 Major Activities

The major activities of the Electricity Information Sharing and Analysis Center (E-ISAC) are described at pages 45–49 of the 2022 Business Plan and Budget. The primary function of E-ISAC is to reduce cyber and physical risk to the electricity industry across North America by providing unique insights, leadership and coordination, and to be a world-class trusted source of quality analysis and rapid sharing of security information for the electric industry. E-ISAC oversees the Cybersecurity Risk Information Sharing Program (CRISP). CRISP delivers real-time, relevant, and actionable cybersecurity risk information to E-ISAC member electricity asset owners and operators, including those from Canada and Mexico. Current and recent accomplishments include establishing a 24X7 watch in 2020; implementing the E-ISAC data platform; operating a critical broadcast program (CBP) to quickly disseminate information on imminent threats and other important notifications; increasing information sharing with members and government partners; operating the industry-supported Physical Security Advisory Group to expand physical security risk identification, risk mitigation, and preparedness; entering into collaboration agreements with the Independent Electric System Operator, the Downstream Natural Gas ISAC, and the Multi-State ISAC; and further strengthening E-ISAC’s talent pool and analytical capabilities, including both cyber and physical security expertise.

E-ISAC’s major activities for 2022 will continue to focus on three areas: (1) Increasing and enhancing engagement with industry participants. (2) Information sharing – increasing the quality and volume of information shared from industry, government partners, and trusted third parties members; strengthening E-ISAC’s capabilities for information sharing via E-ISAC portal enhancements; improving timeliness and actionable value of information shared from E-ISAC to industry through a Priority Intelligence Requirements process; and continuing to operate the 24X7 watch operations in an effective, efficient, and responsive manner. (3) Analysis – effectively collecting data and capturing new information

sources via the CRISP Operational Technology (OT) pilot and evaluating and expanding third party tools and data sources; incorporating existing and new tools and techniques into the analysis process; and strengthening analytical capabilities through strategic relationships and hiring, developing, and retaining qualified staff.

The major activities of the E-ISAC satisfy the following criteria:

- I.C.1: Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as: (1) Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks? (2) Monitoring, event analysis and investigation of BPS major events, off-normal occurrences and near-miss events?
- III.D: Is the activity necessary or appropriate for awareness of circumstances on the BPS and to contribute to understanding risks to reliability.
- III.E: Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS.
- III.F: Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the BPS?
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for these major activities are §810 and 1003.)

VIII. Personnel Certification and Continuing Education 2022 Major Activities

NERC has placed the System Operator Certification Program and Credential Maintenance Program into a separate group overseen by the NERC Personnel Certification Governance Committee (PCGC), a NERC standing committee. These programs are funded entirely through examination fees, and do not receive funding from FPA §215 statutory assessments. For completeness, however, a summary of the major activities of the Personnel Certification group is provided in this Exhibit.

The major activities of the Personnel Certification group are described at pages 54–56 of the 2022 Business Plan and Budget. The System Operator Certification Program promotes the reliability of the North American BPS by ensuring that employers have a workforce of system operators that meet minimum qualifications and maintain their required credentials to work in system control centers. NERC’s System Operator Certification exam tests specific knowledge of job skills and Reliability Standards, and prepares operators to handle the BPS during normal and emergency operations. Certification is maintained by completing NERC approved Credential Maintenance Program courses and activities. The Credential Maintenance Program is developed and maintained by the Credential Maintenance Working Group under the guidelines set by the PCGC. The Exam Working Group, consisting of subject matter experts from all regions of North America, is responsible for conducting extensive job analysis surveys of certified operators across the industry, which provides the basis for certification exams.

Major ongoing and new activities of the Personnel Certification group include analysis of System Operator Certification program survey results; updates to the System Operator Certification Exam Item Bank to ensure relevance to current Reliability Standards; enhancements to the exam “skills assessment” process to better assess the skills and knowledge of system operators; development of an implementation plan for One Credential transition; evaluating credential review and rationalization to maintain credentials; improving Provider Renewal Audits; updating the current System Operator Certification Continuing Education Database (SOCCED) platform consistent with the revised Credential Maintenance Program Manual; and continued improvements to the SOCCEd to enhance user experiences. In 2022, the Personnel Certification Group will focus on further development of the credential maintenance portion of the certification program. The Personnel Certification group will continue to focus on revisions, approval, and implementation of the Credential Maintenance Program Manual to provide clear and concise definitions, instructions, and processes.

The major activities of the Personnel Certification group satisfy the following criteria:

- I.D: Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel?
- II.C: Is the activity necessary or appropriate for the Certification of system operating personnel as qualified to carry out the duties and responsibilities of their positions in accordance with the Requirements of applicable Reliability Standards?
- II.F.1: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents.
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provision for the major activities of the Personnel Certification Program is §900.)
- IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?

IX. Training and Education 2022 Major Activities

The major activities of Training and Education are described at pages 58–59 of the 2022 Business Plan and Budget. The Training and Education group oversees and coordinates the delivery of training programs to ERO Enterprise staff and BPS industry participants. Training and Education uses both one-way mass communication media (e-mails, newsletters, flyers and videos) and two-way communication methods (face-to-face meetings and webinars) to convey learning materials and information. The ongoing and new major activities of the Training and Education group include assisting in facilitation of the ERO Enterprise CMEP staff workshop; developing Confidential Information e-learning; developing CMEP e-learning modules for ERO Enterprise auditors, systems training products for data systems, and functional program training modules; supporting the ERO’s People Strategy; and developing multi-module Align training for registered entities, compliance enforcement authorities, and NERC. Activities of the Training and

Education Program in 2022 will include development of promotional and training videos, e-learning modules, and instructor-led training for the Align and ERO SEL system software; identification, design, development, and implementation of a management development program and other employee training; updating or enhancing as needed existing instructional design support tools and software; implementing training and adoption for the new Learning Management System among ERO Enterprise employees; continued development of the ERO Enterprise Systems Training Website; updating systems training products for NERC data systems to reflect enhancements to these systems; and design and development of cause analysis training.

The major activities of Training and Education satisfy the following criteria:

- I.D: Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel?
- II.F: Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as: (1) Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents. (2) Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the processes? This includes development of guidance documents. (3) Disseminating, through workshops, webinars, Advisories/Recommendations/Essential Actions, and other publications, “lessons learned” information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities, monitoring and investigation of BPS major events, off-normal occurrences and near miss events, and other BPS monitoring activities. (4) Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?
- III.E: Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS?
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for the major activities of the Training and Education are in §900.)
- VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and the applicable provisions of Commission orders.

X. Administrative Services 2022 Major Activities

NERC’s Administrative Services Departments are General and Administrative, Legal and Regulatory, Information Technology (IT), Human Resources (HR) and Administration, and Finance and Accounting. The major activities of these departments are described at pages 62–69 of the 2022 Business Plan and Budget.

General and Administrative is responsible for the administration and general management of the organization and includes the Chief Executive Officer, Chief Engineer, and Chief Administrative Officer and support staff; External Affairs staff (legislative and regulatory, communications, and North American affairs activities); and Board of Trustees costs.

Legal and Regulatory provides legal support to the organization, including management and the NERC program areas. Legal support is provided in areas including antitrust, corporate, commercial, insurance, contracts, employment, real estate, copyright, tax, and legislation. Legal and regulatory support is also provided in connection with matters relating to the delegation agreements with Regional Entities. Legal and Regulatory also includes the Internal Audit and Corporate Risk Management functions.

IT supports the technology needs necessary to the existence and function of the organization in executing statutory responsibilities, and supports, configures, and secures corporate and enterprise applications and infrastructure leveraged by the ERO Enterprise and registered entities. IT's Project Management Office provides project management skills and leadership for major ERO Enterprise and NERC IT projects. IT's major activities are focused on the following areas: (1) Cyber security; (2) developing and implementing ERO Enterprise new functionality, including Align, ERO-SEL, and CORES, Situation Awareness tools, and enhancements to data management systems; (3) ERO Enterprise application and infrastructure support, the underlying infrastructure and resources required to support existing and future ERO Enterprise applications; (4) E-ISAC; and (5) NERC infrastructure support, including productivity tools, audio-visual systems, laptops, and business continuity and security technologies.

HR and Administration's activities include hiring, benefits administration, employee relations, performance and compensation management, training and development for leadership, management, and professional and administrative staff, facilities management of NERC's two offices, and meeting planning and coordination. HR and Administration is heavily involved in implementing NERC's People Strategy to enhance retention, engagement, and attraction of top talent to carry out the mission of the ERO Enterprise. A key focus of HR and Administration is diversity and inclusion training. Under the direction of the NERC Board Corporate Governance and Human Resources Committee, HR and Administration develops compensation strategy and performs or obtains (through consultants) market compensation studies, effectiveness studies, and other compensation and staffing related studies and surveys as needed.

Finance and Accounting manages all finance and accounting functions of NERC, including employee payroll, 401(k), 457(b) and 457(f) plans, travel and expense reporting, monthly financial reporting, sales and use tax, corporate insurance, and development of the annual business plan and budget.

As support functions for all of NERC's statutory programs, the major activities of NERC's Administrative Services Departments satisfy the following criteria:

- I.A: Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC ROP?
- II.A: Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the BPS that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
- II.D: Is the activity necessary or appropriate for conducting, participating in or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?

- III.C: Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other assistance to users, owners, and operators of the BPS in connection with BPS major events and off-normal occurrences, but not real-time operational control of the BPS?
- V: Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)? (The applicable ROP provisions for ERO Enterprise audits conducted by the Internal Audit group in Legal and Regulatory are §406, §506, and Appendix 4A, and for major activities of Finance and Accounting is §1100.)
- VI: Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and the applicable provisions of Commission orders.
- IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?
- XI: Is the activity a governance or administrative/overhead function, activity or service necessary or appropriate for the activities encompassed by the other criteria and, in general, necessary and appropriate to operate a functioning organization?

**NERC WRITTEN CRITERIA FOR DETERMINING
WHETHER AN ACTIVITY IS ELIGIBLE TO BE FUNDED
UNDER SECTION 215 OF THE FEDERAL POWER ACT**

For purposes of internal management approval of a proposed new activity or group of related activities (“major activity”), the proposed activity or major activity must be shown to fall within at least one of the criteria listed below. When sub-criteria are listed below a roman numeral numbered major criterion, the proposed activity should be a positive answer to at least one of the sub-criteria. Conversely, an activity that falls under a sub-criterion should pertain to the subject matter of the major criterion.

NERC’s annual business plan and budget will describe how each major activity falls within one or more of the criteria listed below. If the major activity is substantially the same as a major activity that was shown to fall within the criteria in a previous year’s business plan and budget, the current year’s business plan and budget can refer to the prior year business plan and budget.

A determination that an activity falls within FPA §215 does not necessarily mean that NERC will propose or undertake such activity. The determination of whether an activity falling under FPA §215 should or will be undertaken in a given budget year will be addressed in the context of the applicable business plan and budget and will include opportunities for stakeholder input.

The criteria listed below are not necessarily each distinct from the others. An activity or major activity may fall within more than one of the criteria listed below.

- I. Is the activity necessary or appropriate for the development of Reliability Standards?
 - A. Is the activity necessary or appropriate for Reliability Standards development projects pursuant to the NERC ROP?

- B. Is the activity necessary or appropriate for providing guidance and assistance to Regional Entities in carrying out Regional Reliability Standards development activities?
 - C. Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information for Reliability Standards development, including for purposes of identifying areas in which new Reliability Standards could be developed, existing Reliability Standards could be revised, or existing Reliability Standards could be eliminated, such as:
 - 1. Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the Bulk Power System (BPS)¹⁸ based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
 - 2. Monitoring, event analysis and investigation of BPS major events, off-normal occurrences and near miss events?
 - D. Is the activity necessary or appropriate for the provision of training and education concerning Reliability Standards development processes, procedures and topics for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel?
- II. Is the activity necessary or appropriate for the monitoring and enforcement of compliance with Reliability Standards?
- A. Is the activity necessary or appropriate for the identification and registration of users, owners, and operators of the BPS that are required to comply with Requirements of Reliability Standards applicable to the reliability functions for which they are registered?
 - B. Is the activity necessary or appropriate for the Certification of RCs, TOPS, and BAs as having the requisite personnel, qualifications and facilities and equipment needed to perform these reliability functions in accordance with the applicable Requirements of Reliability Standards?
 - C. Is the activity necessary or appropriate for the Certification of system operating personnel as qualified to carry out the duties and responsibilities of their positions in accordance with the Requirements of applicable Reliability Standards?¹⁹
 - D. Is the activity necessary or appropriate for conducting, participating in or overseeing compliance monitoring and enforcement activities pursuant to the NERC ROP and (through the Regional Entities) the Commission-approved delegation agreements?
 - E. Is the activity necessary or appropriate for information gathering, collection and analysis activities to obtain information to monitor and enforce compliance with Reliability Standards, including evaluating the effectiveness of current compliance monitoring and enforcement processes, the need for new or revised compliance monitoring and enforcement processes, and the need for new or different means of training and education on compliance with Reliability Standards, such as:

¹⁸ This document uses the term “Bulk Power System” because that is the term defined and used in FPA §215. NERC recognizes that a different term, “Bulk Electric System,” is used to define the current reach of reliability standards.

¹⁹ Although certification of system operating personnel is an activity falling within the scope of, and eligible to be funded pursuant to, FPA §215, NERC strives to fully fund the costs of this activity through fees charged to participants.

1. Measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
 2. Monitoring, event analysis and investigation of BPS major events, off-normal occurrences, and near miss events?
- F. Is the activity necessary or appropriate for the provision of training, education and dissemination of information for/to (i) NERC personnel, (ii) Regional Entity personnel, and (iii) industry personnel with respect to compliance monitoring and enforcement topics and topics concerning reliability risks identified through compliance monitoring and enforcement activities, such as:
1. Requirements of Reliability Standards, including how to comply and how to demonstrate compliance? This includes development of guidance and interpretation documents.
 2. Compliance monitoring and enforcement processes, including how to conduct them, how to participate in them, and the expectations for the processes? This includes development of guidance documents.
 3. Disseminating, through workshops, webinars, Advisories, Recommendations, Essential Actions, and other publications; “lessons learned” information on compliance concerns and reliability risks obtained through compliance monitoring and enforcement activities; monitoring and investigation of BPS major events, off-normal occurrences and near miss events, and other BPS monitoring activities?
 4. Registered Entity internal processes for compliance with Reliability Standards, such as development, implementation and maintenance of internal reliability compliance programs?
- G. Is the activity necessary or appropriate for the development and provision of tools and services that are useful for the provision of adequate reliability, because they relate specifically to compliance with existing Reliability Standards and they proactively help avert Reliability Standard violations and BPS disturbances?
- III. Is the activity necessary or appropriate for conducting and disseminating periodic assessments of the reliability of the BPS or monitoring the reliability of the BPS?
- A. Is the activity necessary or appropriate for the preparation or dissemination of long-term, seasonal, and special assessments of the reliability and adequacy of the BPS?
 - B. Is the activity necessary or appropriate for measuring reliability performance—past, present and future; publishing or disseminating the results of such measurements; analyzing the results of such measurements; identifying and analyzing risks to reliability of the BPS based on such measurements; and/or identifying approaches to mitigating or eliminating such risks?
 - C. Is the activity necessary or appropriate for investigating, analyzing, evaluating, and disseminating information concerning, the causes of major events and off-normal occurrences, and/or providing coordination assistance, technical expertise and other

- assistance to users, owners, and operators of the BPS in connection with BPS major events and off-normal occurrences, but not real-time operational control of the BPS?
- D. Is the activity necessary or appropriate for awareness of circumstances on the BPS and to contribute to understanding risks to reliability?
 - E. Is the activity necessary or appropriate for gathering, analyzing and sharing with and among industry and government participants, information regarding the physical or cyber security of the BPS?
 - F. Is the activity necessary or appropriate for the development and dissemination of Advisories/Recommendations/Essential Actions regarding lessons learned and potential reliability risks to users, owners, and operators of the BPS?
 - G. Is the activity necessary or appropriate for data collection and analysis of information regarding BPS reliability matters mandated by the Commission?
- IV. Is the activity one that was required or directed by a Commission order issued pursuant to FPA §215? Justification of an activity as a FPA §215 activity based on this category must reference the particular Commission order and directive.
 - V. Is the activity one that is required or specified by, or carries out, the provisions of NERC’s ROP that have been approved by the Commission as “Electric Reliability Organization Rules” (defined in 18 C.F.R. §39.1) pursuant to FPA §215(f)?
 - VI. Is the activity necessary or appropriate for the supervision and oversight of Regional Entities in the performance of their delegated responsibilities in accordance with FPA §215, 18 C.F.R. Part 39, the Commission-approved delegation agreement between NERC and the Regional Entity, the NERC ROP, and applicable provisions of Commission orders?
 - VII. Is the activity necessary or appropriate to maintain NERC’s certification as the Electric Reliability Organization? This Criterion includes conducting periodic assessments of NERC’s and the Regional Entities’ performance as the Electric Reliability Organization as required by 18 C.F.R. §39.3(c).
 - VIII. Does the activity respond to or is it necessary or appropriate for audits of NERC and the Regional Entities conducted by the Commission?
 - IX. Is the activity necessary or appropriate for NERC and Regional Entity committees, subcommittees and working groups engaged in activities encompassed by one or more of the other criteria?
 - X. Is the activity necessary or appropriate for the analysis and evaluation of activities encompassed by one or more of the other criteria for the purpose of identifying means of performing the activities more effectively and efficiently?
 - XI. Is the activity a governance or administrative/overhead function, activity or service necessary or appropriate for the activities encompassed by the other criteria and, in general, necessary and appropriate to operate a functioning organization? (Should NERC perform any non-FPA §215 activities, the costs of governance and administrative/overhead functions must be appropriately allocated.)

NERC’s current governance and administrative/overhead functions are carried out in the following program areas:

- A. Technical Committees and Members’ Forum Programs
- B. General and administrative (includes, but is not limited to, executive, board of trustees, communications, government affairs, and facilities and related services)
- C. Legal and Regulatory
- D. Information Technology
- E. Human Resources
- F. Accounting and Finance

The following matters are excluded from the scope of FPA §215 activities. While a list of non-FPA §215 activities would be infinite, the following excluded matters are listed here because they are expressly referred to in FPA §215, the Commission’s ERO regulations and/or a Commission order issued pursuant to FPA §215:

- A. Developing or enforcing requirements to enlarge BPS facilities, or to construct new transmission capacity or generation capacity, or requirements for adequacy or safety of electric facilities or services.
- B. Activities entailing Real-time operational control of the BPS.
- C. Activities pertaining to facilities used in the local distribution of electricity.

Exhibit B – Consultants and Contracts Costs

Consultants & Contracts	2021 Budget	2022 Budget	Increase(Decrease)
Reliability Standards			
Standards and PRISM Application Support	\$ 39,552	\$ 108,960	\$ 69,408
Engineering and Standards Support	75,000	50,000	(25,000)
Total	\$ 114,552	\$ 158,960	\$ 44,408
CMEP			
Compliance Assurance Process Documentation Support	\$ -	\$ 75,000	\$ 75,000
Evidence Locker Annual Certification	100,000	100,000	-
Regional Entity CMEP and Align Post-Implementation Audit Support	-	360,000	360,000
BES Exception Process Application Support	39,552	40,000	448
Workshop Facilitation	19,000	19,000	-
Total	\$ 158,552	\$ 594,000	\$ 435,448
RAPA			
RAPA Application Support	\$ 218,203	\$ 261,227	\$ 43,024
EMP Task Force Support	-	50,000	50,000
Environmental Regulatory, Resource Adequacy, & Emerging Technology Analysis	-	200,000	200,000
Probabilistic Analysis	65,000	50,000	(15,000)
Research Partnerships and Projects	100,000	100,000	-
Workshop Facilitation	20,000	20,000	-
Total	\$ 403,203	\$ 681,227	\$ 278,024
Event Analysis			
Event Analysis Application Support	\$ 85,590	\$ 88,157	2,567
Event Analysis Review Support	30,000	30,000	-
Total	\$ 115,590	\$ 118,157	\$ 2,567
Situation Awareness			
Situation Awareness Application Support	\$ 15,000	\$ 15,000	\$ -
Total	\$ 15,000	\$ 15,000	\$ -
E-ISAC			
Security Consulting	\$ 75,000	\$ 87,950	\$ 12,950
GridEx and Other Events	551,500	278,000	(273,500)
Projects and Systems	878,983	491,843	(387,140)
Operations	494,435	913,248	418,813
Partnerships	400,000	400,000	-
CRISP	6,325,723	6,154,820	(170,903)
Total	\$ 8,725,641	\$ 8,325,861	\$ (399,780)
Personnel Certification			
System Operator Testing Expenses and Examination Development	\$ 113,650	\$ 96,188	\$ (17,462)
Job Task Analysis	50,000	-	(50,000)
Continuing Education Audit and Review Services	100,000	100,000	-
SOCCEC Database Support	125,000	125,000	-
Research Support	-	142,000	142,000
Total	\$ 388,650	\$ 463,188	\$ 74,538
Training and Education			
ERO Enterprise and Industry Learning and Development Support	\$ 170,000	\$ 100,000	\$ (70,000)
Total	\$ 170,000	\$ 100,000	\$ (70,000)
General and Administrative			
Communications Support	\$ 20,000	\$ 20,000	\$ -
Executive Support	-	100,000	100,000
Total	\$ 20,000	\$ 120,000	\$ 100,000
Information Technology			
Applications & Infrastructure, Security, and Ongoing Operations Support	\$ 1,635,625	\$ 1,733,406	\$ 97,781
Total	\$ 1,635,625	\$ 1,733,406	\$ 97,781
Human Resources			
Training and Development	\$ 450,000	\$ 565,000	\$ 115,000
Compensation and Benefits Consulting	100,000	155,000	55,000
Documentation and System Support	60,000	150,000	90,000
Total	\$ 610,000	\$ 870,000	\$ 260,000
Finance and Accounting			
Finance and Accounting Support	\$ 125,000	\$ 185,000	\$ 60,000
Total	\$ 125,000	\$ 185,000	\$ 60,000
Legal & Regulatory			
Internal Audit and Corporate Risk Management Support	\$ 200,000	\$ 300,000	\$ 100,000
Workshop Facilitation	10,000	10,000	-
Total	\$ 210,000	\$ 310,000	\$ 100,000
Total Consultants & Contracts	\$ 12,691,813	\$ 13,674,799	\$ 982,986

Exhibit C – Capital Financing

The company secured a capital financing program in July 2020 for \$8.0 million as a funding source for major software application development projects and hardware equipment that primarily benefits the ERO Enterprise. The \$8.0M non-revolving credit facility is available to finance certain capital expenditures made from July 2020 to December 2021. Authorized annual borrowings under the facility are limited to the amount approved by the Board of Trustees and the Federal Energy Regulatory Commission (FERC).

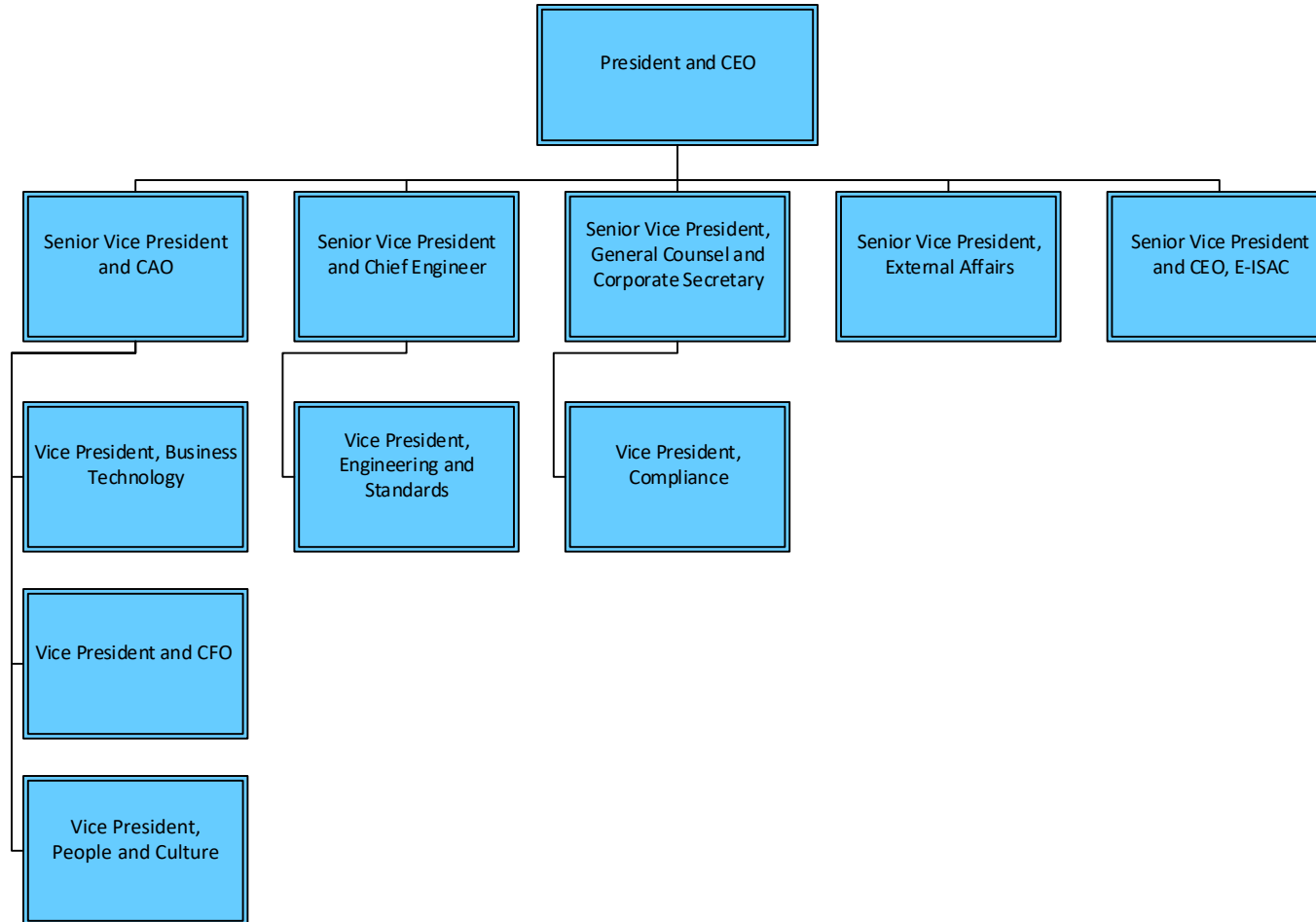
NERC financed \$2.0M for ERO Secure Evidence Locker (SEL) project costs, borrowing \$1.3M in late 2020 and is anticipating to finance the remaining \$700k in 2021. Borrowings under the credit facility for the ERO SEL are amortized over a five-year period, and can be prepaid without penalty. The interest rate for the credit facility is floating, and NERC projects the average interest rate during 2022 for the ERO SEL project borrowing will be 3.0%.

NERC is assuming no loan borrowing through the capital financing program in 2022. The tables below show projected year-end outstanding debt and the future annual payments for debt service.

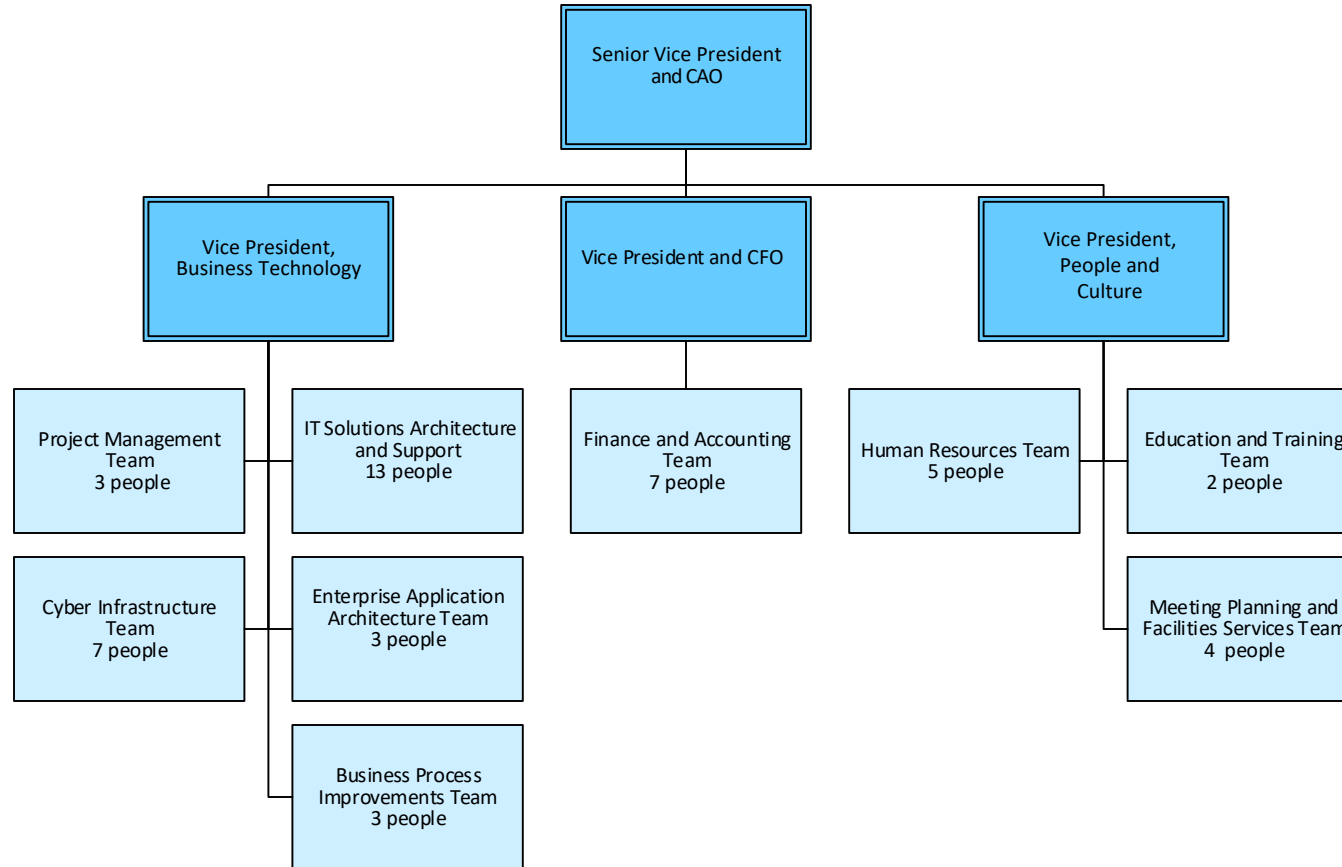
	Year-End Outstanding Debt Balance				
	Prior Years	2021	2022	2023	2024
	Actual	Projected	Budget	Projected	Projected
Prior Years	\$ 1,291,714	\$ 916,714	\$ 672,964	\$ 429,214	\$ 185,464
2021 Projection	-	708,286	\$ 577,036	\$ 445,786	\$ 314,536
2022 Budgeted	-	-	-	-	-
2023 Projected	-	-	-	-	-
2024 Projected	-	-	-	-	-
Total Outstanding Balance	\$ 1,291,714	\$ 1,625,000	\$ 1,250,000	\$ 875,000	\$ 500,000

	Future Annual Payments for Debt Service				
		2021	2022	2023	2024
		Projected	Budget	Projected	Projected
Prior Years - Principal		\$ -	\$ -	\$ -	\$ -
2021 Projection		375,000	375,000	375,000	375,000
2022 Budgeted		-	-	-	-
2023 Projected		-	-	-	-
2024 Projected		-	-	-	-
Interest Expense		55,000	55,000	55,000	55,000
Total Principal and Interest Costs		\$ 430,000	\$ 430,000	\$ 430,000	\$ 430,000

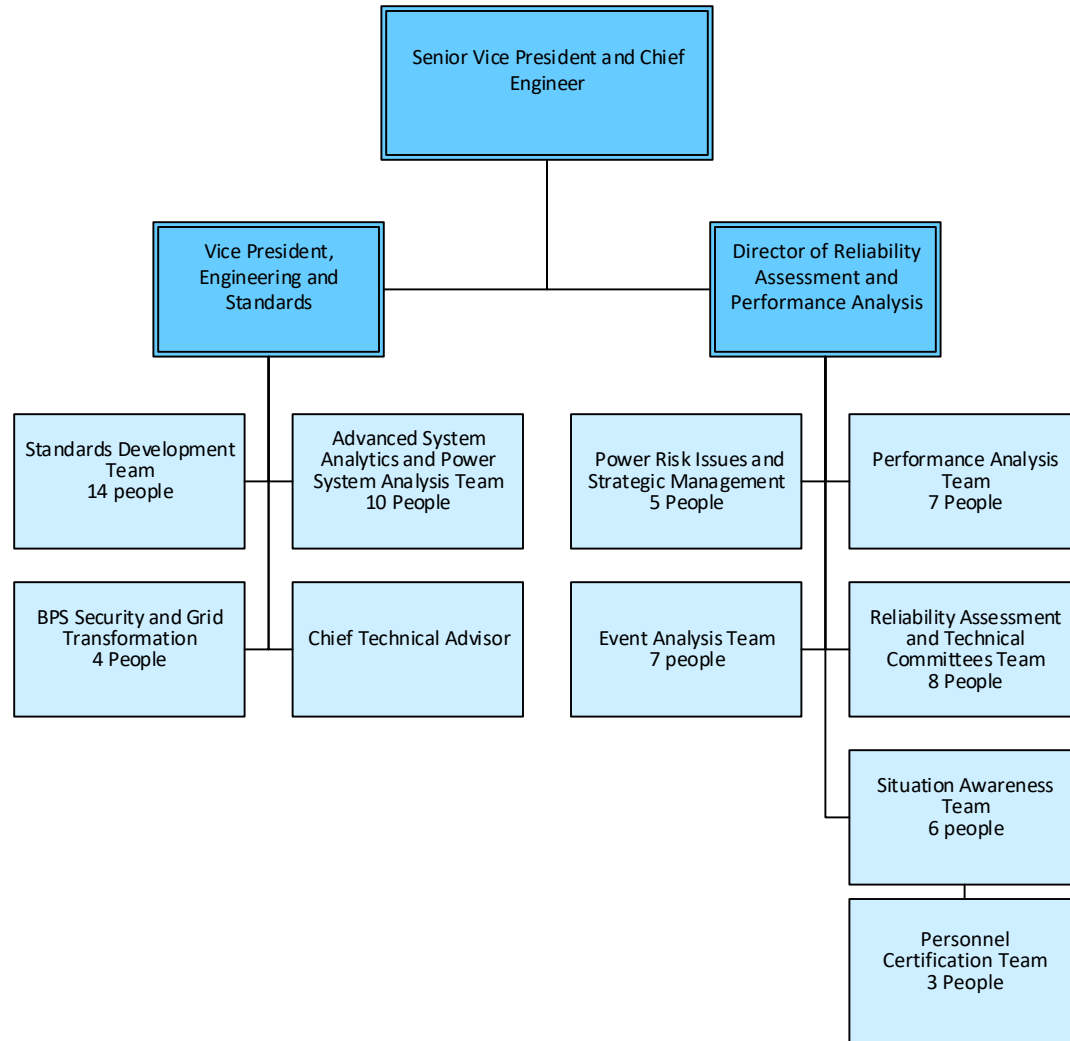
NERC Staff Organization Chart – Budget 2022



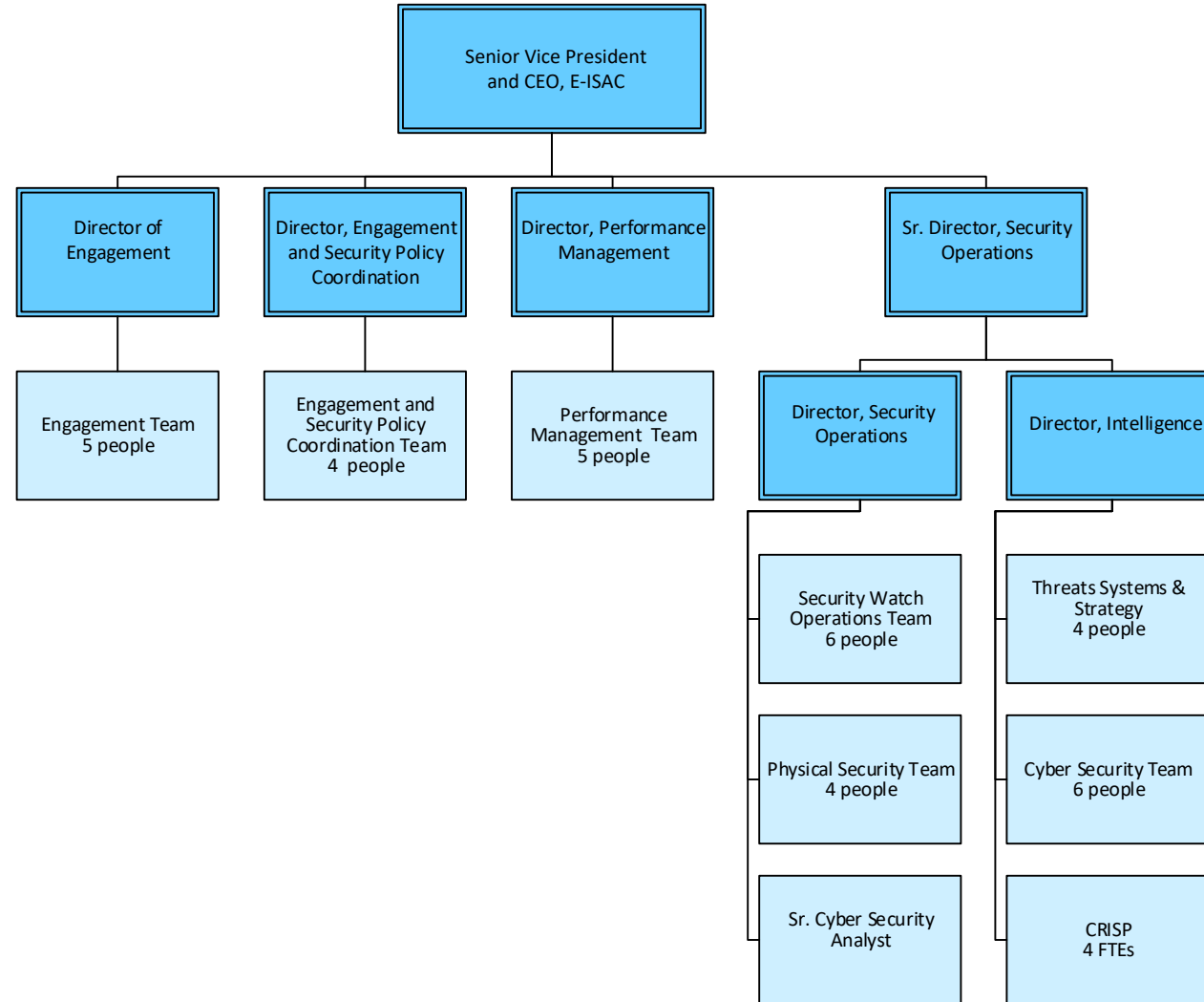
IT, Finance, HR, and Administration



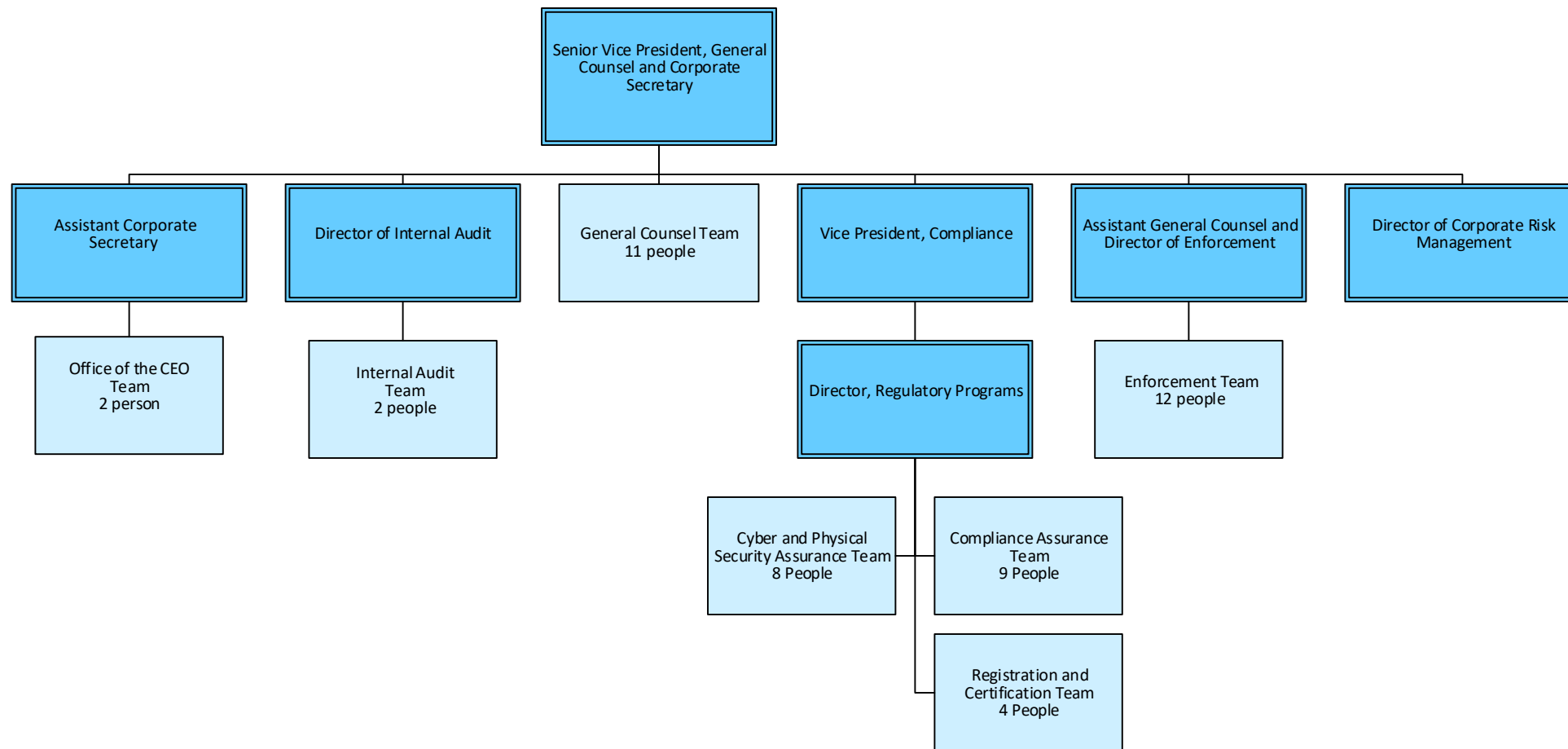
Engineering & Standards, and Reliability Risk Management



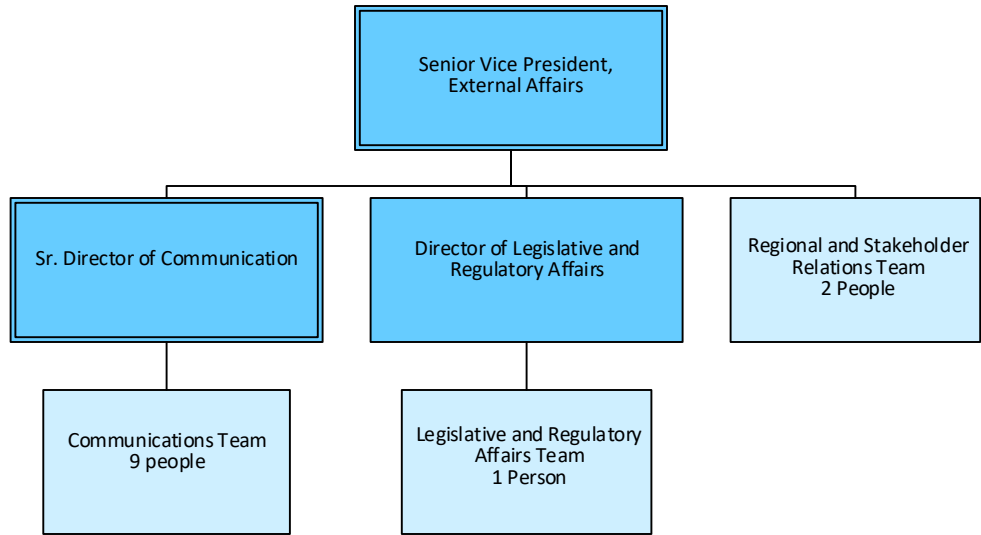
Electricity Information Sharing and Analysis Center



Executive, Legal and Regulatory, Internal Audit and Corporate Risk Management, and Compliance Enforcement



External Affairs



2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	MRO	C-1217	Manitoba Hydro	Canada	25,599,800	-	25,599,800	-	5.342%	0.000%	5.342%	0.000%	0.573%	0.000%	0.573%	0.000%	0.000%
2020	MRO	C-1235	SaskPower	Canada	24,051,400	-	24,051,400	-	5.019%	0.000%	5.019%	0.000%	0.538%	0.000%	0.538%	0.000%	0.000%
2020	MRO	C-1707	AEP-VEMCO	U.S.	669,468	669,468	-	-	0.140%	0.140%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2020	MRO	C-1195	Alliant Energy (ALTE- WPL & ALTW IPL)	U.S.	27,619,348	27,619,348	-	-	5.764%	5.764%	0.000%	0.000%	0.618%	0.618%	0.000%	0.000%	0.700%
2020	MRO	C-1246	American Electric Power Service Corporation	U.S.	35,427,383	35,427,383	-	-	7.393%	7.393%	0.000%	0.000%	0.793%	0.793%	0.000%	0.000%	0.898%
2020	MRO	C-1196	Ames Municipal Electric System	U.S.	741,548	741,548	-	-	0.155%	0.155%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.019%
2020	MRO	C-1986	Arkansas Electric Cooperative Corporation (AECC)	U.S.	4,266,916	4,266,916	-	-	0.890%	0.890%	0.000%	0.000%	0.095%	0.095%	0.000%	0.000%	0.108%
2020	MRO	C-1604	Atlantic Municipal Utilities (AMU)	U.S.	151,599	151,599	-	-	0.032%	0.032%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	MRO	C-1199	Basin Electric Power Cooperative (BEPC)	U.S.	22,200,917	22,200,917	-	-	4.633%	4.633%	0.000%	0.000%	0.497%	0.497%	0.000%	0.000%	0.563%
2020	MRO	C-1247	Board of Public Utilities (Kansas City, KS) (BPU)	U.S.	2,273,346	2,273,346	-	-	0.474%	0.474%	0.000%	0.000%	0.051%	0.051%	0.000%	0.000%	0.058%
2020	MRO	C-1620	Board of Public Utilities City of McPherson, KS (MCPHER)	U.S.	1,039,198	1,039,198	-	-	0.217%	0.217%	0.000%	0.000%	0.023%	0.023%	0.000%	0.000%	0.026%
2020	MRO	C-1647	Carthage Water and Light	U.S.	296,097	296,097	-	-	0.062%	0.062%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	MRO	C-1200	Cedar Falls Utilities (CFU)	U.S.	505,129	505,129	-	-	0.105%	0.105%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.013%
2020	MRO	C-1201	Central Iowa Power Cooperative (CIPCO)	U.S.	2,897,665	2,897,665	-	-	0.605%	0.605%	0.000%	0.000%	0.065%	0.065%	0.000%	0.000%	0.073%
2020	MRO	C-1477	Central Minnesota Municipal Power Agency (CMMMPA)	U.S.	398,243	398,243	-	-	0.083%	0.083%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	MRO	C-1469	Central Valley Electric Cooperative (CVEC)	U.S.	800,154	800,154	-	-	0.167%	0.167%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.020%
2020	MRO	C-2056	City of Beatrice	U.S.	100,457	100,457	-	-	0.021%	0.021%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.003%
2020	MRO	C-1556	City of Bentonville (BENVILL)	U.S.	688,844	688,844	-	-	0.144%	0.144%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2020	MRO	C-1713	City of Bloomer (Bloomer Electric & Water Co.)	U.S.	57,496	57,496	-	-	0.012%	0.012%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1703	City of Chanute (CHANUTEKS)	U.S.	514,187	514,187	-	-	0.107%	0.107%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2020	MRO	C-1203	City of Escanaba (EME)	U.S.	128,455	128,455	-	-	0.027%	0.027%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	MRO	C-1719	City of Kasota	U.S.	3,742	3,742	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	MRO	C-2032	City of Lubbock (Lubbock Power and Light)	U.S.	2,693,426	2,693,426	-	-	0.562%	0.562%	0.000%	0.000%	0.060%	0.060%	0.000%	0.000%	0.068%
2020	MRO	C-1709	City of Nixa	U.S.	171,160	171,160	-	-	0.036%	0.036%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	MRO	C-2057	City of South Sioux City, NE	U.S.	172,526	172,526	-	-	0.036%	0.036%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	MRO	C-1722	City of Spooner	U.S.	30,606	30,606	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-2052	City of Superior NE	U.S.	25,902	25,902	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-2053	City of Wakefield, NE	U.S.	47,461	47,461	-	-	0.010%	0.010%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-2054	City of Wayne, NE	U.S.	67,662	67,662	-	-	0.014%	0.014%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	MRO	C-1436	City Utilities of Springfield, MO (SPRM)	U.S.	3,091,255	3,091,255	-	-	0.645%	0.645%	0.000%	0.000%	0.069%	0.069%	0.000%	0.000%	0.078%
2020	MRO	C-1204	Corn Belt Power Cooperative (CBPC)	U.S.	1,944,769	1,944,769	-	-	0.406%	0.406%	0.000%	0.000%	0.044%	0.044%	0.000%	0.000%	0.049%
2020	MRO	C-1710	Dahlberg Electric Company	U.S.	116,893	116,893	-	-	0.024%	0.024%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	MRO	C-1207	Dairyland Power Cooperative (DPC)	U.S.	5,721,371	5,721,371	-	-	1.194%	1.194%	0.000%	0.000%	0.128%	0.128%	0.000%	0.000%	0.145%
2020	MRO	C-1437	East Texas Electric Cooperative, Inc. (ETEC)	U.S.	1,109,694	1,109,694	-	-	0.232%	0.232%	0.000%	0.000%	0.025%	0.025%	0.000%	0.000%	0.028%
2020	MRO	C-1716	Eldridge Electric and Water Utilities	U.S.	40,262	40,262	-	-	0.008%	0.008%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1250	Empire District Electric Co.	U.S.	5,003,264	5,003,264	-	-	1.044%	1.044%	0.000%	0.000%	0.112%	0.112%	0.000%	0.000%	0.127%
2020	MRO	C-1205	Falls City Water & Light Department	U.S.	40,660	40,660	-	-	0.008%	0.008%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1470	Farmers Electric Cooperative, Inc. of New Mexico (FARMCOOPNM)	U.S.	357,479	357,479	-	-	0.075%	0.075%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	MRO	C-1206	Fremont Department of Utilities (City of)	U.S.	491,920	491,920	-	-	0.103%	0.103%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2020	MRO	C-1208	Geneseo Municipal Utilities	U.S.	64,884	64,884	-	-	0.014%	0.014%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2020	MRO	C-1438	Golden Spread Electric Cooperative, Inc (GSEC)	U.S.	6,207,715	6,207,715	-	-	1.295%	1.295%	0.000%	0.000%	0.139%	0.139%	0.000%	0.000%	0.157%
2020	MRO	C-1209	Grand Island Utilities Department	U.S.	734,425	734,425	-	-	0.153%	0.153%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.019%
2020	MRO	C-1251	Grand River Dam Authority (GRDA)	U.S.	6,024,775	6,024,775	-	-	1.257%	1.257%	0.000%	0.000%	0.135%	0.135%	0.000%	0.000%	0.153%
2020	MRO	C-1717	Great Lakes Utilities	U.S.	1,455,318	1,455,318	-	-	0.304%	0.304%	0.000%	0.000%	0.033%	0.033%	0.000%	0.000%	0.037%
2020	MRO	C-1210	Great River Energy (GRE)	U.S.	13,014,291	13,014,291	-	-	2.716%	2.716%	0.000%	0.000%	0.291%	0.291%	0.000%	0.000%	0.330%
2020	MRO	C-1606	Harlan Municipal Utilities	U.S.	15,748	15,748	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	MRO	C-1211	Hastings Utilities (HAST)	U.S.	433,768	433,768	-	-	0.091%	0.091%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	MRO	C-1212	Hearthland Consumers Power District (HCPD)	U.S.	478,620	478,620	-	-	0.100%	0.100%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2020	MRO	C-1213	Hutchinson Utilities Commission (HUCH)	U.S.	281,466	281,466	-	-	0.059%	0.059%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	MRO	C-1248	Independence Power & Light (Independence, MO) (INDN)	U.S.	1,016,691	1,016,691	-	-	0.212%	0.212%	0.000%	0.000%	0.023%	0.023%	0.000%	0.000%	0.026%
2020	MRO	C-1252	Evergy Metro-Kansas City Power & Light (f.k.a. Kansas City Power & Light)	U.S.	15,181,940	15,181,940	-	-	3.168%	3.168%	0.000%	0.000%	0.340%	0.340%	0.000%	0.000%	0.385%
2020	MRO	C-1439	Kansas Electric Power Cooperative (KEPC)	U.S.	2,225,956	2,225,956	-	-	0.465%	0.465%	0.000%	0.000%	0.050%	0.050%	0.000%	0.000%	0.056%
2020	MRO	C-1440	Kansas Municipal Energy Agency (KMEA)	U.S.	1,580,862	1,580,862	-	-	0.330%	0.330%	0.000%	0.000%	0.035%	0.035%	0.000%	0.000%	0.040%
2020	MRO	C-1637	Kansas Power Pool (KPP)	U.S.	855,519	855,519	-	-	0.179%	0.179%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2020	MRO	C-1598	Energy MO West Greater MO Operations (f.k.a. KCPL Greater Missouri Operations)	U.S.	8,684,493	8,684,493	-	-	1.812%	1.812%	0.000%	0.000%	0.194%	0.194%	0.000%	0.000%	0.220%
2020	MRO	C-2038	Kennett Board of Public Works	U.S.	119,339	119,339	-	-	0.025%	0.025%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	MRO	C-1472	Lea County Electric Cooperative (LCEC)	U.S.	1,177,766	1,177,766	-	-	0.246%	0.246%	0.000%	0.000%	0.026%	0.026%	0.000%	0.000%	0.030%
2020	MRO	C-1215	Lincoln Electric System (LES)	U.S.	3,130,392	3,130,392	-	-	0.653%	0.653%	0.000%	0.000%	0.070%	0.070%	0.000%	0.000%	0.079%
2020	MRO	C-1216	Madison, Gas and Electric (MGE)	U.S.	3,259,945	3,259,945	-	-	0.680%	0.680%	0.000%	0.000%	0.073%	0.073%	0.000%	0.000%	0.083%
2020	MRO	C-2039	Malden Board of Public Works	U.S.	49,602	49,602	-	-	0.010%	0.010%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1220	MidAmerican Energy Company (MEC)	U.S.	27,812,676	27,812,676	-	-	5.804%	5.804%	0.000%	0.000%	0.622%	0.622%	0.000%	0.000%	0.705%
2020	MRO	C-1441	Midwest Energy, Inc (MIDW)	U.S.	1,709,743	1,709,743	-	-	0.357%	0.357%	0.000%	0.000%	0.038%	0.038%	0.000%	0.000%	0.043%
2020	MRO	C-1224	Minnesota Municipal Power Agency (MMPA) Avant Energy Inc is Agent	U.S.	1,931,218	1,931,218	-	-	0.403%	0.403%	0.000%	0.000%	0.043%	0.043%	0.000%	0.000%	0.049%
2020	MRO	C-1221	Minnesota Power (MP)	U.S.	11,071,551	11,071,551	-	-	2.310%	2.310%	0.000%	0.000%	0.248%	0.248%	0.000%	0.000%	0.281%
2020	MRO	C-1222	Minnkota Power Cooperative, Inc. (MPC)	U.S.	3,873,511	3,873,511	-	-	0.808%	0.808%	0.000%	0.000%	0.087%	0.087%	0.000%	0.000%	0.098%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	MRO	C-1987	Missouri Joint Municipal Electric Utility	U.S.	428,627	428,627	-	-	0.089%	0.089%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	MRO	C-1223	Missouri River Energy Services	U.S.	2,657,288	2,657,288	-	-	0.555%	0.555%	0.000%	0.000%	0.059%	0.059%	0.000%	0.000%	0.067%
2020	MRO	C-1226	Montana-Dakota Utilities Co. (MDU)	U.S.	3,169,086	3,169,086	-	-	0.661%	0.661%	0.000%	0.000%	0.071%	0.071%	0.000%	0.000%	0.080%
2020	MRO	C-1607	Montezuma Municipal Light & Power	U.S.	22,250	22,250	-	-	0.005%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	MRO	C-2051	Moose Lake Water & Light Commission	U.S.	34,600	34,600	-	-	0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1227	Municipal Energy Agency of Nebraska (MEAN)	U.S.	980,866	980,866	-	-	0.205%	0.205%	0.000%	0.000%	0.022%	0.022%	0.000%	0.000%	0.025%
2020	MRO	C-1228	Muscatine Power and Water (MPW)	U.S.	880,291	880,291	-	-	0.184%	0.184%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.022%
2020	MRO	C-1229	Nebraska City Utilities	U.S.	120,271	120,271	-	-	0.025%	0.025%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	MRO	C-1230	Nebraska Public Power District (NPPD)	U.S.	12,970,642	12,970,642	-	-	2.707%	2.707%	0.000%	0.000%	0.290%	0.290%	0.000%	0.000%	0.329%
2020	MRO	C-1711	North Central Power Company	U.S.	39,418	39,418	-	-	0.008%	0.008%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-2055	Northeast Power	U.S.	388,759	388,759	-	-	0.081%	0.081%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	MRO	C-1442	Northeast Texas Electric Cooperative, Inc. (NTEC)	U.S.	3,222,262	3,222,262	-	-	0.672%	0.672%	0.000%	0.000%	0.072%	0.072%	0.000%	0.000%	0.082%
2020	MRO	C-1231	NorthWestern Energy (NWE)	U.S.	1,675,490	1,675,490	-	-	0.350%	0.350%	0.000%	0.000%	0.037%	0.037%	0.000%	0.000%	0.042%
2020	MRO	C-1712	NorthWestern Wisconsin Electric Company	U.S.	187,605	187,605	-	-	0.039%	0.039%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	MRO	C-1255	Oklahoma Gas and Electric Co. (OKGE)	U.S.	30,427,228	30,427,228	-	-	6.350%	6.350%	0.000%	0.000%	0.681%	0.681%	0.000%	0.000%	0.771%
2020	MRO	C-1444	Oklahoma Municipal Power Authority (OMPA)	U.S.	2,800,522	2,800,522	-	-	0.584%	0.584%	0.000%	0.000%	0.063%	0.063%	0.000%	0.000%	0.071%
2020	MRO	C-1232	Omaha Public Power District (OPPD)	U.S.	11,677,772	11,677,772	-	-	2.437%	2.437%	0.000%	0.000%	0.261%	0.261%	0.000%	0.000%	0.296%
2020	MRO	C-1233	Otter Tail Power Company (OTP)	U.S.	4,878,281	4,878,281	-	-	0.108%	0.108%	0.000%	0.000%	0.109%	0.109%	0.000%	0.000%	0.124%
2020	MRO	C-1651	Paragould Light, Water & Cable (PARAGOULD)	U.S.	573,608	573,608	-	-	0.120%	0.120%	0.000%	0.000%	0.013%	0.013%	0.000%	0.000%	0.015%
2020	MRO	C-1725	Peoples Electric Cooperative (PEC)	U.S.	749,172	749,172	-	-	0.156%	0.156%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.019%
2020	MRO	C-2040	Piggott Municipal Light, Water & Sewer	U.S.	34,566	34,566	-	-	0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1720	Resale Power Group of Iowa	U.S.	527,726	527,726	-	-	0.110%	0.110%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2020	MRO	C-1721	Rice Lake Utilities	U.S.	155,943	155,943	-	-	0.033%	0.033%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	MRO	C-1234	Rochester Public Utilities (RPU)	U.S.	2,583	2,583	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	MRO	C-1473	Roosevelt County Electric Cooperative	U.S.	186,232	186,232	-	-	0.039%	0.039%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	MRO	C-1236	Southern Minnesota Municipal Power Agency (SMMPA)	U.S.	2,731,414	2,731,414	-	-	0.570%	0.570%	0.000%	0.000%	0.061%	0.061%	0.000%	0.000%	0.069%
2020	MRO	C-1257	Southwestern Public Service Co. Xcel Energy (SPS)	U.S.	22,636,866	22,636,866	-	-	4.724%	4.724%	0.000%	0.000%	0.506%	0.506%	0.000%	0.000%	0.574%
2020	MRO	C-1256	Sunflower Electric Cooperative (SEC)	U.S.	4,673,142	4,673,142	-	-	0.975%	0.975%	0.000%	0.000%	0.105%	0.105%	0.000%	0.000%	0.118%
2020	MRO	C-1475	Tri County Electric Cooperative, Inc. of Oklahoma (TRICEC)	U.S.	192,080	192,080	-	-	0.040%	0.040%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	MRO	C-1665	Upper Peninsula Power Co (UPPC)	U.S.	787,492	787,492	-	-	0.164%	0.164%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.020%
2020	MRO	C-1714	Village of Caddott	U.S.	12,444	12,444	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	MRO	C-1260	Evergy Kansas Central-Westart Energy (f.k.a. Westar Energy)	U.S.	20,502,312	20,502,312	-	-	4.278%	4.278%	0.000%	0.000%	0.459%	0.459%	0.000%	0.000%	0.520%
2020	MRO	C-1239	Western Area Power Administration Rocky Mountain Region (LM) (WAPA-RMR)	U.S.	44,829	44,829	-	-	0.009%	0.009%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1240	Western Area Power Administration Upper Great Plains (UM) (WAPA)	U.S.	9,174,727	9,174,727	-	-	1.915%	1.915%	0.000%	0.000%	0.205%	0.205%	0.000%	0.000%	0.233%
2020	MRO	C-1259	Western Farmers Electric Cooperative (WFEC)	U.S.	8,909,333	8,909,333	-	-	1.859%	1.859%	0.000%	0.000%	0.199%	0.199%	0.000%	0.000%	0.226%
2020	MRO	C-1501	West Texas Municipal Power Agency (WTMPA)	U.S.	128,682	128,682	-	-	0.027%	0.027%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	MRO	C-1242	Wisconsin Public Power, Inc. (East and West regions) (WPPI)	U.S.	5,084,959	5,084,959	-	-	1.061%	1.061%	0.000%	0.000%	0.114%	0.114%	0.000%	0.000%	0.129%
2020	MRO	C-1983	Wolverine Power Marketing Cooperative	U.S.	44,867	44,867	-	-	0.009%	0.009%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	MRO	C-1244	Xcel Energy Company Northern States Power (NSP)	U.S.	41,532,301	41,532,301	-	-	8.667%	8.667%	0.000%	0.000%	0.929%	0.929%	0.000%	0.000%	1.053%
TOTAL MRO					479,196,453	429,545,253	49,651,200	-	100.000%	89.639%	10.361%	0.000%	10.721%	9.610%	1.111%	0.000%	10.890%
2020	NPCC	C-1336	New England	U.S.	116,875,000	116,875,000	-	-	19.297%	19.297%	0.000%	0.000%	2.615%	2.615%	0.000%	0.000%	2.963%
2020	NPCC	C-1339	New York	U.S.	150,198,000	150,198,000	-	-	24.799%	24.799%	0.000%	0.000%	3.360%	3.360%	0.000%	0.000%	3.808%
2020	NPCC	C-1337	Ontario	Canada	132,225,000	-	132,225,000	-	21.832%	0.000%	21.832%	0.000%	2.958%	0.000%	2.958%	0.000%	0.000%
2020	NPCC		Quebec	Canada	181,561,000	-	181,561,000	-	29.978%	0.000%	29.978%	0.000%	4.062%	0.000%	4.062%	0.000%	0.000%
2020	NPCC	C-1341	Hydro Quebec	Canada	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC	C-1572	Regie	Canada	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC	C-1705	New Brunswick	Canada	13,921,000	-	13,921,000	-	2.299%	0.000%	2.299%	0.000%	0.311%	0.000%	0.311%	0.000%	0.000%
2020	NPCC	C-1340	Nova Scotia	Canada	10,871,000	-	10,871,000	-	1.795%	0.000%	1.795%	0.000%	0.243%	0.000%	0.243%	0.000%	0.000%
TOTAL NPCC					605,651,000	267,073,000	338,578,000	-	100.000%	44.097%	55.903%	0.000%	13.550%	5.975%	7.575%	0.000%	6.771%
2020	RF	C-1102	Cannelton Utilities	U.S.	12,514	12,514	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	RF	C-1106	City of Crowell	U.S.	44,607	44,607	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	RF	C-1490	City of Lansing	U.S.	2,053,628	2,053,628	-	-	0.240%	0.240%	0.000%	0.000%	0.046%	0.046%	0.000%	0.000%	0.052%
2020	RF	C-1120	Cloverland Electric Cooperative	U.S.	707,628	707,628	-	-	0.083%	0.083%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.018%
2020	RF	C-1122	CMS ERM Michigan LLC	U.S.	176,558	176,558	-	-	0.021%	0.021%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	RF	C-1124	Constellation New Energy (MECS-CONS)	U.S.	1,812,476	1,812,476	-	-	0.212%	0.212%	0.000%	0.000%	0.041%	0.041%	0.000%	0.000%	0.046%
2020	RF	C-1123	Constellation New Energy (MECS-DET)	U.S.	1,835,881	1,835,881	-	-	0.214%	0.214%	0.000%	0.000%	0.041%	0.041%	0.000%	0.000%	0.047%
2020	RF	C-1126	Consumers Energy Company	U.S.	31,446,239	31,446,239	-	-	3.671%	3.671%	0.000%	0.000%	0.704%	0.704%	0.000%	0.000%	0.797%
2020	RF	C-1128	DTE Electric Company	U.S.	47,380,425	47,380,425	-	-	5.531%	5.531%	0.000%	0.000%	1.060%	1.060%	0.000%	0.000%	1.201%
2020	RF	C-1166	Duke Energy Indiana	U.S.	27,733,597	27,733,597	-	-	3.237%	3.237%	0.000%	0.000%	0.620%	0.620%	0.000%	0.000%	0.703%
2020	RF	C-1135	Ferdinand Municipal Light & Water	U.S.	46,866	46,866	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	RF	C-1646	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-CONS)	U.S.	616,562	616,562	-	-	0.072%	0.072%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	RF	C-1549	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-DET)	U.S.	27,413	27,413	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	RF	C-1145	Hoosier Energy	U.S.	7,418,785	7,418,785	-	-	0.866%	0.866%	0.000%	0.000%	0.166%	0.166%	0.000%	0.000%	0.188%
2020	RF	C-1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	2,946,340	2,946,340	-	-	0.344%	0.344%	0.000%	0.000%	0.066%	0.066%	0.000%	0.000%	0.075%
2020	RF	C-1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	390,226	390,226	-	-	0.046%	0.046%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	RF	C-1486	Indiana Municipal Power Agency (SIGE)	U.S.	544,645	544,645	-	-	0.064%	0.064%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2020	RF	C-1149	Indianapolis Power & Light Co.	U.S.	13,184,287	13,184,287	-	-	1.539%	1.539%	0.000%	0.000%	0.295%	0.295%	0.000%	0.000%	0.334%
2020	RF	C-2050	Logansport Municipal Utility (LMU)	U.S.	398,526	398,526	-	-	0.047%	0.047%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	RF	C-1666	Constellation New Energy	U.S.	306,871	306,871	-	-	0.036%	0.036%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	RF	C-1614	Just Energy (MECS-DET)	U.S.	5,535	5,535	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	RF	C-1154	Michigan Public Power Agency	U.S.	3,620,539	3,620,539	-	-	0.423%	0.423%	0.000%	0.000%	0.081%	0.081%	0.000%	0.000%	0.092%
2020	RF	C-1155	Michigan South Central Power Agency	U.S.	731,567	731,567	-	-	0.085%	0.085%	0.000%	0.000%	0.016%	0.016%	0.000%	0.000%	0.019%
2020	RF	C-1163	Northern Indiana Public Service Co.	U.S.	15,322,248	15,322,248	-	-	1.789%	1.789%	0.000%	0.000%	0.343%	0.343%	0.000%	0.000%	0.388%
2020	RF	C-1164	Ontonagon County Rural Electrification Assoc.	U.S.	29,369	29,369	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	RF	C-1265	PJM Interconnection, LLC	U.S.	644,300,844	644,300,844	-	-	75.210%	75.210%	0.000%	0.000%	14.415%	14.415%	0.000%	0.000%	16.335%
2020	RF	C-1172	Calpine Energy Solutions, LLC (MECS-CONS)	U.S.	359,595	359,595	-	-	0.042%	0.042%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	RF	C-1171	Calpine Energy Solutions, LLC (MECS-DET)	U.S.	609,204	609,204	-	-	0.071%	0.071%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.015%
2020	RF	C-1176	Direct Energy	U.S.	22,588	22,588	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	RF	C-1174	Direct Energy	U.S.	913,637	913,637	-	-	0.107%	0.107%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.023%
2020	RF	C-1581	Spartan Renewable Energy	U.S.	154,494	154,494	-	-	0.018%	0.018%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	RF	C-1985	Spartan Renewable Energy (MI UP)	U.S.	60,990	60,990	-	-	0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2020	RF	C-1180	Thumb Electric Cooperative	U.S.	194,958	194,958	-	-	0.023%	0.023%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	RF	C-2027	Upper Michigan Energy Resources	U.S.	1,759,505	1,759,505	-	-	0.205%	0.205%	0.000%	0.000%	0.039%	0.039%	0.000%	0.000%	0.045%
2020	RF	C-1181	Vectren Energy, a CenterPoint Energy Company	U.S.	4,765,284	4,765,284	-	-	0.556%	0.556%	0.000%	0.000%	0.107%	0.107%	0.000%	0.000%	0.121%
2020	RF	C-1184	Wabash Valley Power Alliance (DUKE CIN)	U.S.	3,059,529	3,059,529	-	-	0.357%	0.357%	0.000%	0.000%	0.068%	0.068%	0.000%	0.000%	0.078%
2020	RF	C-1488	Wabash Valley Power Alliance (NIPSCO)	U.S.	1,772,192	1,772,192	-	-	0.207%	0.207%	0.000%	0.000%	0.040%	0.040%	0.000%	0.000%	0.045%
2020	RF	C-1185	Wisconsin Electric Power Co.	U.S.	24,873,047	24,873,047	-	-	2.903%	2.903%	0.000%	0.000%	0.556%	0.556%	0.000%	0.000%	0.631%
2020	RF	C-2041	Wisconsin Public Service Co.	U.S.	10,952,698	10,952,698	-	-	1.279%	1.279%	0.000%	0.000%	0.245%	0.245%	0.000%	0.000%	0.278%
2020	RF	C-1189	Wolverine Power Marketing Cooperative	U.S.	665,898	665,898	-	-	0.078%	0.078%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2020	RF	C-1191	Wolverine Power Supply Cooperative	U.S.	2,846,066	2,846,066	-	-	0.332%	0.332%	0.000%	0.000%	0.064%	0.064%	0.000%	0.000%	0.072%
2020	RF	C-1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	567,801	567,801	-	-	0.066%	0.066%	0.000%	0.000%	0.013%	0.013%	0.000%	0.000%	0.014%
			TOTAL RELIABILITYFIRST		856,671,663	856,671,663			100.000%	100.000%	0.000%	0.000%	19.166%	19.166%	0.000%	0.000%	21.719%
2020	SERC	C-1267	Alabama Municipal Electric Authority	U.S.	3,383,540	3,383,540	-	-	0.262%	0.262%	0.000%	0.000%	0.076%	0.076%	0.000%	0.000%	0.086%
2020	SERC	C-1268	Alabama Power Company	U.S.	53,143,121	53,143,121	-	-	4.118%	4.118%	0.000%	0.000%	1.189%	1.189%	0.000%	0.000%	1.347%
2020	SERC	C-1269	Ameren - Illinois	U.S.	39,785,612	39,785,612	-	-	3.083%	3.083%	0.000%	0.000%	0.890%	0.890%	0.000%	0.000%	1.009%
2020	SERC	C-1271	Ameren - Missouri	U.S.	35,233,374	35,233,374	-	-	2.730%	2.730%	0.000%	0.000%	0.788%	0.788%	0.000%	0.000%	0.893%
2020	SERC	C-1273	Associated Electric Cooperative Inc.	U.S.	22,995,872	22,995,872	-	-	1.782%	1.782%	0.000%	0.000%	0.514%	0.514%	0.000%	0.000%	0.583%
2020	SERC	C-1582	Beauregard Electric Cooperative, Inc.	U.S.	1,311,604	1,311,604	-	-	0.102%	0.102%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.033%
2020	SERC	C-1462	Benton Utility District	U.S.	220,293	220,293	-	-	0.017%	0.017%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	SERC	C-1274	Big Rivers Electric Corporation	U.S.	3,440,935	3,440,935	-	-	0.267%	0.267%	0.000%	0.000%	0.077%	0.077%	0.000%	0.000%	0.087%
2020	SERC	C-1275	Black Warrior EMC	U.S.	349,041	349,041	-	-	0.027%	0.027%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1276	Blue Ridge EMC	U.S.	1,369,072	1,369,072	-	-	0.106%	0.106%	0.000%	0.000%	0.031%	0.031%	0.000%	0.000%	0.035%
2020	SERC	C-1628	Brazos Electric Power Cooperative, Inc.	U.S.	536,208	536,208	-	-	0.042%	0.042%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2020	SERC	C-1463	Canton, MS	U.S.	119,076	119,076	-	-	0.009%	0.009%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	SERC	C-1277	Central Electric Power Cooperative Inc.	U.S.	17,817,739	17,817,739	-	-	1.381%	1.381%	0.000%	0.000%	0.399%	0.399%	0.000%	0.000%	0.452%
2020	SERC	C-1667	Century Aluminum - Hawesville	U.S.	3,027,212	3,027,212	-	-	0.235%	0.235%	0.000%	0.000%	0.068%	0.068%	0.000%	0.000%	0.077%
2020	SERC	C-1668	Century Aluminum - Seebree	U.S.	3,229,474	3,229,474	-	-	0.250%	0.250%	0.000%	0.000%	0.072%	0.072%	0.000%	0.000%	0.082%
2020	SERC	C-1278	City of Blountstown FL	U.S.	33,682	33,682	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1279	City of Camden SC	U.S.	184,163	184,163	-	-	0.014%	0.014%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	SERC	C-1280	City of Collins MS	U.S.	44,603	44,603	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1281	City of Columbia MO	U.S.	1,146,998	1,146,998	-	-	0.089%	0.089%	0.000%	0.000%	0.026%	0.026%	0.000%	0.000%	0.029%
2020	SERC	C-1282	City of Conway AR (Conway Corporation)	U.S.	923,607	923,607	-	-	0.072%	0.072%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.023%
2020	SERC	C-1284	City of Evergreen AL	U.S.	54,717	54,717	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1285	City of Hampton GA	U.S.	33,804	33,804	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1286	City of Hartford AL	U.S.	30,445	30,445	-	-	0.002%	0.002%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1287	City of Henderson (KY) Municipal Power & Light	U.S.	557,530	557,530	-	-	0.043%	0.043%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2020	SERC	C-1288	City of North Little Rock AR (DENL)	U.S.	884,240	884,240	-	-	0.069%	0.069%	0.000%	0.000%	0.020%	0.020%	0.000%	0.000%	0.022%
2020	SERC	C-1289	City of Orangeburg SC Department of Public Utilities	U.S.	810,000	810,000	-	-	0.063%	0.063%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.021%
2020	SERC	C-1290	City of Robertsdale AL	U.S.	86,701	86,701	-	-	0.007%	0.007%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	SERC	C-1291	City of Ruston LA (DERS)	U.S.	258,435	258,435	-	-	0.020%	0.020%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	SERC	C-1292	Seneca Light & Power	U.S.	159,364	159,364	-	-	0.012%	0.012%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	SERC	C-1115	City of Springfield (CWLP)	U.S.	1,601,094	1,601,094	-	-	0.124%	0.124%	0.000%	0.000%	0.036%	0.036%	0.000%	0.000%	0.041%
2020	SERC	C-1465	City of Thayer, MO	U.S.	22,901	22,901	-	-	0.002%	0.002%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1293	City of Troy AL	U.S.	444,599	444,599	-	-	0.034%	0.034%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	SERC	C-1294	City of West Memphis AR (West Memphis Utilities)	U.S.	354,870	354,870	-	-	0.027%	0.027%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1583	Claiborne Electric Cooperative, Inc.	U.S.	623,836	623,836	-	-	0.048%	0.048%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	SERC	C-1584	Concordia Electric Cooperative, Inc.	U.S.	206,612	206,612	-	-	0.016%	0.016%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.005%
2020	SERC	C-1726	Cube Hydro Carolinas	U.S.	19,706	19,706	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1283	Dalton Utilities	U.S.	1,978,613	1,978,613	-	-	0.153%	0.153%	0.000%	0.000%	0.044%	0.044%	0.000%	0.000%	0.050%
2020	SERC	C-1585	Dixie Electric Membership Corporation	U.S.	2,109,781	2,109,781	-	-	0.163%	0.163%	0.000%	0.000%	0.047%	0.047%	0.000%	0.000%	0.053%
2020	SERC	C-1295	Dominion Virginia Power	U.S.	87,255,415	87,255,415	-	-	6.762%	6.762%	0.000%	0.000%	1.952%	1.952%	0.000%	0.000%	2.212%
2020	SERC	C-1296	Duke Energy Carolinas, LLC	U.S.	91,017,623	91,017,623	-	-	7.053%	7.053%	0.000%	0.000%	2.036%	2.036%	0.000%	0.000%	2.308%
2020	SERC	C-1466	Durant, MS	U.S.	22,313	22,313	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	SERC	C-1478	LG&E and KU Services Co as agent for LG&E Co and KU Co	U.S.	30,698,478	30,698,478	-	-	2.379%	2.379%	0.000%	0.000%	0.687%	0.687%	0.000%	0.000%	0.778%
2020	SERC	C-1297	East Kentucky Power Cooperative	U.S.	13,425,046	13,425,046	-	-	1.040%	1.040%	0.000%	0.000%	0.300%	0.300%	0.000%	0.000%	0.340%
2020	SERC	C-1298	East Mississippi Electric Power Association	U.S.	399,399	399,399	-	-	0.031%	0.031%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	SERC	C-1669	Electricities of North Carolina Inc	U.S.	11,305,338	11,305,338	-	-	0.876%	0.876%	0.000%	0.000%	0.253%	0.253%	0.000%	0.000%	0.287%
2020	SERC	C-1300	EnergyUnited EMC	U.S.	2,594,534	2,594,534	-	-	0.201%	0.201%	0.000%	0.000%	0.058%	0.058%	0.000%	0.000%	0.066%
2020	SERC	C-1301	Entergy	U.S.	116,232,658	116,232,658	-	-	9.007%	9.007%	0.000%	0.000%	2.600%	2.600%	0.000%	0.000%	2.947%
2020	SERC	C-1302	Fayetteville (NC) Public Works Commission	U.S.	1,997,345	1,997,345	-	-	0.155%	0.155%	0.000%	0.000%	0.045%	0.045%	0.000%	0.000%	0.051%
2020	SERC	C-1303	Florida Public Utilities (FL Panhandle Load)	U.S.	297,811	297,811	-	-	0.023%	0.023%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	SERC	C-1304	French Broad EMC	U.S.	543,598	543,598	-	-	0.042%	0.042%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2020	SERC	C-1305	Georgia Power Company	U.S.	83,439,775	83,439,775	-	-	6.466%	6.466%	0.000%	0.000%	1.867%	1.867%	0.000%	0.000%	2.115%
2020	SERC	C-1306	Georgia System Optns Corporation	U.S.	40,022,705	40,022,705	-	-	3.101%	3.101%	0.000%	0.000%	0.895%	0.895%	0.000%	0.000%	1.015%
2020	SERC	C-1479	Greenwood (MS) Utilities Commission	U.S.	277,692	277,692	-	-	0.022%	0.022%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	SERC	C-1307	Greenwood (SC) Commissioners of Public Works	U.S.	309,860	309,860	-	-	0.024%	0.024%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	SERC	C-1308	Gulf Power Company	U.S.	11,671,052	11,671,052	-	-	0.904%	0.904%	0.000%	0.000%	0.261%	0.261%	0.000%	0.000%	0.296%
2020	SERC	C-1586	Haywood EMC	U.S.	333,903	333,903	-	-	0.026%	0.026%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	SERC	C-1984	Hoosier Energy REC, Inc	U.S.	371,495	371,495	-	-	0.029%	0.029%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1309	Illinois Municipal Electric Agency	U.S.	1,723,000	1,723,000	-	-	0.134%	0.134%	0.000%	0.000%	0.039%	0.039%	0.000%	0.000%	0.044%
2020	SERC	C-1480	Itta Bena, MS	U.S.	12,540	12,540	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	238,117	238,117	-	-	0.018%	0.018%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	SERC	C-1617	Kentucky Municipal Power	U.S.	668,007	668,007	-	-	0.052%	0.052%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2020	SERC	C-1481	Municipal Energy Agency of MS-Kosciusko, MS	U.S.	66,742	66,742	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2020	SERC	C-1482	Municipal Energy Agency of MS-Leland, MS	U.S.	27,905	27,905	-	-	0.002%	0.002%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1313	McCormick Commission of Public Works	U.S.	17,883	17,883	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1314	Mississippi Power Company	U.S.	9,708,549	9,708,549	-	-	0.752%	0.752%	0.000%	0.000%	0.217%	0.217%	0.000%	0.000%	0.246%
2020	SERC	C-1630	Mt. Carmel Public Utility	U.S.	97,005	97,005	-	-	0.008%	0.008%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	SERC	C-1315	Municipal Electric Authority of Georgia	U.S.	10,851,372	10,851,372	-	-	0.841%	0.841%	0.000%	0.000%	0.243%	0.243%	0.000%	0.000%	0.275%
2020	SERC	C-1316	N.C. Electric Membership Corp.	U.S.	12,896,977	12,896,977	-	-	0.999%	0.999%	0.000%	0.000%	0.289%	0.289%	0.000%	0.000%	0.327%
2020	SERC	C-1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	285,472	285,472	-	-	0.022%	0.022%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	SERC	C-1574	Northern Virginia Electric Cooperative	U.S.	6,408,786	6,408,786	-	-	0.497%	0.497%	0.000%	0.000%	0.143%	0.143%	0.000%	0.000%	0.162%
2020	SERC	C-1319	Old Dominion Electric Cooperative	U.S.	4,617,213	4,617,213	-	-	0.358%	0.358%	0.000%	0.000%	0.103%	0.103%	0.000%	0.000%	0.117%
2020	SERC	C-1618	Osceola (Arkansas) Municipal Light and Power	U.S.	132,952	132,952	-	-	0.010%	0.010%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	SERC	C-1320	Owensboro (KY) Municipal Utilities	U.S.	775,561	775,561	-	-	0.060%	0.060%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.020%
2020	SERC	C-1321	Piedmont EMC in Duke and Progress Areas	U.S.	495,759	495,759	-	-	0.038%	0.038%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.013%
2020	SERC	C-1323	Piedmont Municipal Power Agency (PMPA)	U.S.	2,313,347	2,313,347	-	-	0.179%	0.179%	0.000%	0.000%	0.052%	0.052%	0.000%	0.000%	0.059%
2020	SERC	C-1589	Pointe Coupee Electric Memb. Corp.	U.S.	228,339	228,339	-	-	0.018%	0.018%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	SERC	C-1266	PowerSouth Energy	U.S.	9,062,012	9,062,012	-	-	0.702%	0.702%	0.000%	0.000%	0.203%	0.203%	0.000%	0.000%	0.230%
2020	SERC	C-1330	Prairie Power, Inc.	U.S.	1,559,073	1,559,073	-	-	0.121%	0.121%	0.000%	0.000%	0.035%	0.035%	0.000%	0.000%	0.040%
2020	SERC	C-1706	Duke Energy Progress	U.S.	51,680,525	51,680,525	-	-	4.005%	4.005%	0.000%	0.000%	1.156%	1.156%	0.000%	0.000%	1.310%
2020	SERC	C-1325	Rutherford EMC	U.S.	1,370,353	1,370,353	-	-	0.106%	0.106%	0.000%	0.000%	0.031%	0.031%	0.000%	0.000%	0.035%
2020	SERC	C-1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	1,995,167	1,995,167	-	-	0.155%	0.155%	0.000%	0.000%	0.045%	0.045%	0.000%	0.000%	0.051%
2020	SERC	C-1326	South Carolina Electric & Gas Company	U.S.	22,184,367	22,184,367	-	-	1.719%	1.719%	0.000%	0.000%	0.496%	0.496%	0.000%	0.000%	0.562%
2020	SERC	C-1327	South Carolina Public Service Authority	U.S.	8,924,527	8,924,527	-	-	0.692%	0.692%	0.000%	0.000%	0.200%	0.200%	0.000%	0.000%	0.226%
2020	SERC	C-1590	South Louisiana Electric Cooperative Association	U.S.	542,269	542,269	-	-	0.042%	0.042%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.014%
2020	SERC	C-1328	Cooperative Energy (formerly SMEPA)	U.S.	9,656,694	9,656,694	-	-	0.748%	0.748%	0.000%	0.000%	0.216%	0.216%	0.000%	0.000%	0.245%
2020	SERC	C-1329	Southern Illinois Power Cooperative	U.S.	1,302,820	1,302,820	-	-	0.101%	0.101%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.033%
2020	SERC	C-1591	Southwest Louisiana Electric Membership Corporation	U.S.	2,496,302	2,496,302	-	-	0.193%	0.193%	0.000%	0.000%	0.056%	0.056%	0.000%	0.000%	0.063%
2020	SERC	C-1619	Southwestern Electric Cooperative, Inc.	U.S.	446,162	446,162	-	-	0.035%	0.035%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	SERC	C-1331	Tennessee Valley Authority	U.S.	153,307,094	153,307,094	-	-	11.880%	11.880%	0.000%	0.000%	3.430%	3.430%	0.000%	0.000%	3.887%
2020	SERC	C-1632	East Texas Electric Cooperative (ETEC)	U.S.	-	-	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1332	Tombigbee Electric Cooperative Inc.	U.S.	123,284	123,284	-	-	0.010%	0.010%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	SERC	C-1594	Town of Sharpsburg, N.C.	U.S.	18,542	18,542	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1595	Town of Stantonsburg, N.C. JRO	U.S.	55,168	55,168	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1333	Town of Waynesville NC	U.S.	78,086	78,086	-	-	0.006%	0.006%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	SERC	C-1334	Town of Wintonsboro SC	U.S.	58,502	58,502	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1335	Town of Winterville NC	U.S.	53,104	53,104	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	1,052,023	1,052,023	-	-	0.082%	0.082%	0.000%	0.000%	0.024%	0.024%	0.000%	0.000%	0.027%
2020	SERC	C-1435	Arkansas Electric Cooperative Corporation	U.S.	10,274,740	10,274,740	-	-	0.796%	0.796%	0.000%	0.000%	0.230%	0.230%	0.000%	0.000%	0.260%
2020	SERC	C-1557	City of Clarksdale, Mississippi	U.S.	142,420	142,420	-	-	0.011%	0.011%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	SERC	C-1708	City of Abbeville	U.S.	124,941	124,941	-	-	0.010%	0.010%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	SERC	C-1558	Hope Water & Light (HWL)	U.S.	277,602	277,602	-	-	0.022%	0.022%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	SERC	C-1559	City of Minden	U.S.	130,914	130,914	-	-	0.010%	0.010%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	SERC	C-1249	Cleco Power LLC	U.S.	10,493,744	10,493,744	-	-	0.813%	0.813%	0.000%	0.000%	0.235%	0.235%	0.000%	0.000%	0.266%
2020	SERC	C-1648	Jonesboro City Water & Light	U.S.	1,427,646	1,427,646	-	-	0.111%	0.111%	0.000%	0.000%	0.032%	0.032%	0.000%	0.000%	0.036%
2020	SERC	C-1471	Lafayette Utilities System	U.S.	1,978,011	1,978,011	-	-	0.153%	0.153%	0.000%	0.000%	0.044%	0.044%	0.000%	0.000%	0.050%
2020	SERC	C-1253	Louisiana Energy & Power Authority (LEPA)	U.S.	922,517	922,517	-	-	0.071%	0.071%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.023%
2020	SERC	C-1443	Missouri Joint Municipal Electric Utility Commission	U.S.	2,584,735	2,584,735	-	-	0.200%	0.200%	0.000%	0.000%	0.058%	0.058%	0.000%	0.000%	0.066%
2020	SERC	C-1639	OzMo Ozark Missouri, West Plains MO	U.S.	177,339	177,339	-	-	0.014%	0.014%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	SERC	C-1653	Poplar Bluff Municipal Utilities	U.S.	352,416	352,416	-	-	0.027%	0.027%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1636	City of Prescott	U.S.	79,121	79,121	-	-	0.006%	0.006%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	SERC	C-1561	Public Service Commission of Yazoo City of Mississippi	U.S.	110,008	110,008	-	-	0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.003%
2020	SERC	C-1654	Sikeston Board of Municipal Utilities	U.S.	370,226	370,226	-	-	0.029%	0.029%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1074	Alachua, City of	U.S.	139,740	139,740	-	-	0.011%	0.011%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	SERC	C-1075	Bartow, City of	U.S.	308,039	308,039	-	-	0.024%	0.024%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	SERC	C-1076	Chattahoochee, City of	U.S.	36,386	36,386	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1077	Florida Keys Electric Cooperative Assn	U.S.	796,538	796,538	-	-	0.062%	0.062%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.020%
2020	SERC	C-1078	Florida Power & Light Co.	U.S.	127,518,893	127,518,893	-	-	9.882%	9.882%	0.000%	0.000%	2.853%	2.853%	0.000%	0.000%	3.233%
2020	SERC	C-1079	Florida Public Utilities Company	U.S.	352,654	352,654	-	-	0.027%	0.027%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	SERC	C-1080	Gainesville Regional Utilities	U.S.	1,977,104	1,977,104	-	-	0.153%	0.153%	0.000%	0.000%	0.044%	0.044%	0.000%	0.000%	0.050%
2020	SERC	C-1081	Homestead, City of	U.S.	609,000	609,000	-	-	0.047%	0.047%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.015%
2020	SERC	C-1082	JEA	U.S.	12,740,000	12,740,000	-	-	0.987%	0.987%	0.000%	0.000%	0.285%	0.285%	0.000%	0.000%	3.233%
2020	SERC	C-1083	Lakeland Electric	U.S.	3,272,666	3,272,666	-	-	0.254%	0.254%	0.000%	0.000%	0.073%	0.073%	0.000%	0.000%	0.083%
2020	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	4,493,057	4,493,057	-	-	0.348%	0.348%	0.000%	0.000%	0.101%	0.101%	0.000%	0.000%	0.114%
2020	SERC	C-1661	City of Lake Worth	U.S.	477,968	477,968	-	-	0.037%	0.037%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2020	SERC	C-1084	Mount Dora, City of	U.S.	93,294	93,294	-	-	0.007%	0.007%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	472,488	472,488	-	-	0.037%	0.037%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2020	SERC	C-1086	Orlando Utilities Commission	U.S.	7,636,814	7,636,814	-	-	0.592%	0.592%	0.000%	0.000%	0.171%	0.171%	0.000%	0.000%	0.194%
2020	SERC	C-1087	Duke Energy Florida	U.S.	43,195,000	43,195,000	-	-	3.347%	3.347%	0.000%	0.000%	0.966%	0.966%	0.000%	0.000%	1.095%
2020	SERC	C-1088	Quincy, City of	U.S.	146,270	146,270	-	-	0.011%	0.011%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	SERC	C-1089	Reedy Creek Improvement District	U.S.	977,908	977,908	-	-	0.076%	0.076%	0.000%	0.000%	0.022%	0.022%	0.000%	0.000%	0.025%
2020	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	861,263	861,263	-	-	0.067%	0.067%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.022%
2020	SERC	C-1091	Tallahassee, City of	U.S.	2,727,843	2,727,843	-	-	0.211%	0.211%	0.000%	0.000%	0.061%	0.061%	0.000%	0.000%	0.069%
2020	SERC	C-1092	Tampa Electric Company	U.S.	21,055,000	21,055,000	-	-	1.632%	1.632%	0.000%	0.000%	0.471%	0.471%	0.000%	0.000%	0.534%
2020	SERC	C-1093	Wauchula, City of	U.S.	66,500	66,500	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2020	SERC	C-1094	Williston, City of	U.S.	33,983	33,983	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	SERC	C-1095	Winter Park, City of	U.S.	448,168	448,168	-	-	0.035%	0.035%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	SERC	C-1724	Moore Haven, City of	U.S.	17,590	17,590	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	SERC	C-1072	Florida Municipal Power Agency	U.S.	6,636,995	6,636,995	-	-	0.514%	0.514%	0.000%	0.000%	0.148%	0.148%	0.000%	0.000%	0.168%
2020	SERC	C-1073	Seminole Electric Cooperative	U.S.	15,622,519	15,622,519	-	-	1.211%	1.211%	0.000%	0.000%	0.350%	0.350%	0.000%	0.000%	0.396%
			TOTAL SERC		1,290,440,174	1,290,440,174	-	-	100.000%	100.000%	0.000%	0.000%	28.871%	28.871%	0.000%	0.000%	32.716%
2020	Texas RE	C-1019	ERCOT	U.S.	381,905,336	381,905,336	-	-	100.000%	100.000%	0.000%	0.000%	8.544%	8.544%	0.000%	0.000%	9.682%
			TOTAL ERCOT		381,905,336	381,905,336	-	-	100.000%	100.000%	0.000%	0.000%	8.544%	8.544%	0.000%	0.000%	9.682%
2020	WECC		Alberta Electric System Operator	Canada	60,083,723	-	60,083,723	-	7.021%	0.000%	7.021%	0.000%	1.344%	0.000%	1.344%	0.000%	0.000%
2020	WECC		British Columbia Hydro & Power Authority	Canada	62,323,308	-	62,323,308	-	7.283%	0.000%	7.283%	0.000%	1.394%	0.000%	1.394%	0.000%	0.000%
2020	WECC		Centro Nacional de Control de Energia	Mexico	14,685,176	-	-	14,685,176	-	1.716%	0.000%	0.000%	1.716%	0.329%	0.000%	0.329%	0.000%
2020	WECC		3 Phases Renewables	U.S.	4,231	4,231	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Agulla Irrigation District - APS	U.S.	35,927	35,927	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Aha Macav Power Service	U.S.	17,868	17,868	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Ajo Improvement District	U.S.	12,073	12,073	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Arizona Electric Power Cooperative, Inc	U.S.	3,790,082	3,790,082	-	-	0.043%	0.043%	0.000%	0.000%	0.085%	0.085%	0.000%	0.000%	0.096%
2020	WECC		Arizona Public Service Company	U.S.	29,687,136	29,687,136	-	-	3.469%	3.469%	0.000%	0.000%	0.664%	0.664%	0.000%	0.000%	0.753%
2020	WECC		Arkansas River Power Authority (ARPA)	U.S.	242,612	242,612	-	-	0.028%	0.028%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	WECC		Avangrid Renewables	U.S.	21,457	21,457	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	WECC		Avista Corporation	U.S.	9,305,584	9,305,584	-	-	1.087%	1.087%	0.000%	0.000%	0.208%	0.208%	0.000%	0.000%	0.236%
2020	WECC		Barrick Goldstrike Mines Inc.	U.S.	1,457,830	1,457,830	-	-	0.170%	0.170%	0.000%	0.000%	0.033%	0.033%	0.000%	0.000%	0.037%
2020	WECC		Basin Electric Power Cooperative - NorthWestern	U.S.	824,949	824,949	-	-	0.096%	0.096%	0.000%	0.000%	0.018%	0.018%	0.000%	0.000%	0.021%
2020	WECC		Basin Electric Power Cooperative - WACM	U.S.	2,014,694	2,014,694	-	-	0.235%	0.235%	0.000%	0.000%	0.045%	0.045%	0.000%	0.000%	0.051%
2020	WECC		Basin Electric Power Cooperative - WAUW	U.S.	145,105	145,105	-	-	0.017%	0.017%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	WECC		Beartooth Electric Cooperative	U.S.	81,202	81,202	-	-	0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Big Horn County Electric Cooperative	U.S.	70,549	70,549	-	-	0.008%	0.008%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Black Hills Energy	U.S.	2,055,903	2,055,903	-	-	0.240%	0.240%	0.000%	0.000%	0.046%	0.046%	0.000%	0.000%	0.052%
2020	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	4,622,323	4,622,323	-	-	0.540%	0.540%	0.000%	0.000%	0.103%	0.103%	0.000%	0.000%	0.117%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	WECC		Black Hills State University South Dakota	U.S.	16,477	16,477	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Bonneville Power Administration-Transmission	U.S.	54,879,612	54,879,612	-	-	6.413%	6.413%	0.000%	0.000%	1.228%	1.228%	0.000%	0.000%	1.391%
2020	WECC		Bonneville Power Administration-Power Services	U.S.	6,474,746	6,474,746	-	-	0.757%	0.757%	0.000%	0.000%	0.145%	0.145%	0.000%	0.000%	0.164%
2020	WECC		Bonneville Power Administration-Hydro	U.S.	207,582	207,582	-	-	0.024%	0.024%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.005%
2020	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	21,613	21,613	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	17	17	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Bureau of Reclamation (Wellfield)	U.S.	5,166	5,166	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Burlington	U.S.	31,512	31,512	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Caesars Entertainment LLC/North	U.S.	47,572	47,572	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Caesars Entertainment LLC/South	U.S.	393,079	393,079	-	-	0.046%	0.046%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	WECC		California Independent System Operator	U.S.	216,104,225	216,104,225	-	-	25.252%	25.252%	0.000%	0.000%	4.835%	4.835%	0.000%	0.000%	5.479%
2020	WECC		Calpine Energy Solutions, LLC.	U.S.	1,436,305	1,436,305	-	-	0.168%	0.168%	0.000%	0.000%	0.032%	0.032%	0.000%	0.000%	0.036%
2020	WECC		Central Arizona Water Conservation District - WALC	U.S.	1,942,601	1,942,601	-	-	0.227%	0.227%	0.000%	0.000%	0.043%	0.043%	0.000%	0.000%	0.049%
2020	WECC		Circus Circus Las Vegas	U.S.	47,777	47,777	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		City of Aztec Electric Dept. - WACM	U.S.	35,185	35,185	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		City of Fallon	U.S.	92,310	92,310	-	-	0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		City of Farmington	U.S.	922,804	922,804	-	-	0.108%	0.108%	0.000%	0.000%	0.021%	0.021%	0.000%	0.000%	0.023%
2020	WECC		City of Gallup	U.S.	162,633	162,633	-	-	0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	WECC		City of Henderson	U.S.	44,589	44,589	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		City of Las Vegas	U.S.	42,723	42,723	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		City of Mesa	U.S.	262,815	262,815	-	-	0.031%	0.031%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	WECC		City of North Las Vegas	U.S.	21,744	21,744	-	-	0.003%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	WECC		City of Page	U.S.	77,006	77,006	-	-	0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		City of Redding	U.S.	766,319	766,319	-	-	0.090%	0.090%	0.000%	0.000%	0.017%	0.017%	0.000%	0.000%	0.019%
2020	WECC		City of Roseville	U.S.	1,193,630	1,193,630	-	-	0.139%	0.139%	0.000%	0.000%	0.027%	0.027%	0.000%	0.000%	0.030%
2020	WECC		City of Tacoma DBA Tacoma Power	U.S.	4,892,587	4,892,587	-	-	0.572%	0.572%	0.000%	0.000%	0.109%	0.109%	0.000%	0.000%	0.124%
2020	WECC		City of Williams	U.S.	48,258	48,258	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Clark County Water Reclamation District	U.S.	75,765	75,765	-	-	0.009%	0.009%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	9,605	9,605	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Colorado River Commission of Nevada	U.S.	314,810	314,810	-	-	0.037%	0.037%	0.000%	0.000%	0.007%	0.007%	0.000%	0.000%	0.008%
2020	WECC		Colorado Springs Utilities	U.S.	5,152,942	5,152,942	-	-	0.602%	0.602%	0.000%	0.000%	0.115%	0.115%	0.000%	0.000%	0.131%
2020	WECC		Colorado Springs Utilities - WACM	U.S.	-	0	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Constellation New Energy	U.S.	473,976	473,976	-	-	0.055%	0.055%	0.000%	0.000%	0.011%	0.011%	0.000%	0.000%	0.012%
2020	WECC		Delta-Montrose Electric Association	U.S.	287,649	287,649	-	-	0.034%	0.034%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	WECC		Deseret Generation & Transmission Cooperative - WACM	U.S.	90,107	90,107	-	-	0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	21,164	21,164	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	WECC		El Paso Electric Company	U.S.	8,674,263	8,674,263	-	-	0.104%	0.104%	0.000%	0.000%	0.019%	0.019%	0.000%	0.000%	0.020%
2020	WECC		Electrical District #2	U.S.	194,886	194,886	-	-	0.023%	0.023%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	7,564	7,564	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	664	664	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	48,724	48,724	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	432,357	432,357	-	-	0.051%	0.051%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	WECC		Francis E. Warren Air Force Base	U.S.	24,314	24,314	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Georgia Pacific Gypsum, LLC	U.S.	23,811	23,811	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Grand Valley Power	U.S.	256,235	256,235	-	-	0.030%	0.030%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.006%
2020	WECC		Harquahala Valley Power Districts - APS	U.S.	112,047	112,047	-	-	0.013%	0.013%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	WECC		Holy Cross Energy	U.S.	225,936	225,936	-	-	0.026%	0.026%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	WECC		Idaho Power Company	U.S.	15,981,105	15,981,105	-	-	1.867%	1.867%	0.000%	0.000%	0.358%	0.358%	0.000%	0.000%	0.405%
2020	WECC		Imperial Irrigation District	U.S.	3,826,834	3,826,834	-	-	0.447%	0.447%	0.000%	0.000%	0.086%	0.086%	0.000%	0.000%	0.097%
2020	WECC		Intermountain Rural Electric Association	U.S.	2,461,223	2,461,223	-	-	0.288%	0.288%	0.000%	0.000%	0.055%	0.055%	0.000%	0.000%	0.062%
2020	WECC		Jicarilla Apache Nation Power Authority	U.S.	25,387	25,387	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	274,714	274,714	-	-	0.032%	0.032%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	WECC		Kit Carson Electric Inc	U.S.	280,095	280,095	-	-	0.033%	0.033%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	WECC		Las Vegas Valley Water District	U.S.	114,764	114,764	-	-	0.013%	0.013%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	WECC		Los Angeles Department of Water and Power	U.S.	26,230,141	26,230,141	-	-	3.065%	3.065%	0.000%	0.000%	0.587%	0.587%	0.000%	0.000%	0.665%
2020	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	57,635	57,635	-	-	0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	159,255	159,255	-	-	0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	WECC		Merced Irrigation District	U.S.	529,112	529,112	-	-	0.062%	0.062%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2020	WECC		MGM Resorts Design and Development	U.S.	657,196	657,196	-	-	0.077%	0.077%	0.000%	0.000%	0.015%	0.015%	0.000%	0.000%	0.017%
2020	WECC		Modesto Irrigation District	U.S.	2,685,347	2,685,347	-	-	0.314%	0.314%	0.000%	0.000%	0.060%	0.060%	0.000%	0.000%	0.068%
2020	WECC		Montana-Dakota Utilities Co.	U.S.	22,545	22,545	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Mt. Wheeler Power	U.S.	612,384	612,384	-	-	0.072%	0.072%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	WECC		Municipal Energy Agency of Nebraska - PSCO	U.S.	184,777	184,777	-	-	0.022%	0.022%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	WECC		Municipal Energy Agency of Nebraska - WACM	U.S.	645,166	645,166	-	-	0.075%	0.075%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	-	0	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-A

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	WECC		Navajo Tribal Utility Authority - APS	U.S.	57,144	57,144	-	-	0.007%	0.007%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Navajo Tribal Utility Authority - PNM	U.S.	200,565	200,565	-	-	0.023%	0.023%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	WECC		Navajo Tribal Utility Authority - WACM	U.S.	239,596	239,596	-	-	0.028%	0.028%	0.000%	0.000%	0.005%	0.005%	0.000%	0.000%	0.006%
2020	WECC		Nebraska Public Power Marketing	U.S.	3,687	3,687	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Needles Public Utilities Authority	U.S.	48,543	48,543	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Nevada Power Company dba NV Energy	U.S.	31,304,065	31,304,065	-	-	3.658%	3.658%	0.000%	0.000%	0.700%	0.700%	0.000%	0.000%	0.794%
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	9,625,571	9,625,571	-	-	1.125%	1.125%	0.000%	0.000%	0.215%	0.215%	0.000%	0.000%	0.244%
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - WAUW	U.S.	280,404	280,404	-	-	0.033%	0.033%	0.000%	0.000%	0.006%	0.006%	0.000%	0.000%	0.007%
2020	WECC		Okanogan PUD	U.S.	633,382	633,382	-	-	0.074%	0.074%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	WECC		Overton Power District No. 5	U.S.	405,738	405,738	-	-	0.047%	0.047%	0.000%	0.000%	0.009%	0.009%	0.000%	0.000%	0.010%
2020	WECC		PacifiCorp	U.S.	49,873,575	49,873,575	-	-	5.828%	5.828%	0.000%	0.000%	1.116%	1.116%	0.000%	0.000%	1.264%
2020	WECC		PacifiCorp - IPC	U.S.	1,969	1,969	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		PacifiCorp - Portland General	U.S.	3,908	3,908	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		PacifiCorp - WACM	U.S.	116,852	116,852	-	-	0.014%	0.014%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	WECC		PacifiCorp West	U.S.	20,782,577	20,782,577	-	-	2.428%	2.428%	0.000%	0.000%	0.465%	0.465%	0.000%	0.000%	0.527%
2020	WECC		Pend Oreille County PUD No. 1	U.S.	528,832	528,832	-	-	0.062%	0.062%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
2020	WECC		Peppermill Hotel Casino	U.S.	46,018	46,018	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Platte River Power Authority	U.S.	3,195,751	3,195,751	-	-	0.373%	0.373%	0.000%	0.000%	0.071%	0.071%	0.000%	0.000%	0.081%
2020	WECC		Portland General Electric Company	U.S.	18,052,508	18,052,508	-	-	2.109%	2.109%	0.000%	0.000%	0.404%	0.404%	0.000%	0.000%	0.458%
2020	WECC		Public Service Company of Colorado (Xcel)	U.S.	31,714,725	31,714,725	-	-	3.706%	3.706%	0.000%	0.000%	0.710%	0.710%	0.000%	0.000%	0.804%
2020	WECC		Public Service Company of Colorado (Xcel) - WACM	U.S.	71,356	71,356	-	-	0.008%	0.008%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Public Service Company of New Mexico	U.S.	9,519,759	9,519,759	-	-	1.112%	1.112%	0.000%	0.000%	0.213%	0.213%	0.000%	0.000%	0.241%
2020	WECC		Public Utility District No. 1 of Chelan County	U.S.	1,778,298	1,778,298	-	-	0.208%	0.208%	0.000%	0.000%	0.040%	0.040%	0.000%	0.000%	0.045%
2020	WECC		PUD No. 1 of Douglas County	U.S.	1,087,818	1,087,818	-	-	0.127%	0.127%	0.000%	0.000%	0.024%	0.024%	0.000%	0.000%	0.028%
2020	WECC		PUD No. 2 of Grant County	U.S.	5,049,540	5,049,540	-	-	0.590%	0.590%	0.000%	0.000%	0.113%	0.113%	0.000%	0.000%	0.128%
2020	WECC		PUD No. 2 of Grant County - Avista	U.S.	92,610	92,610	-	-	0.011%	0.011%	0.000%	0.000%	0.002%	0.002%	0.000%	0.000%	0.002%
2020	WECC		Puget Sound Energy, Inc.	U.S.	23,587,288	23,587,288	-	-	2.756%	2.756%	0.000%	0.000%	0.528%	0.528%	0.000%	0.000%	0.598%
2020	WECC		Raton Public Service	U.S.	48,102	48,102	-	-	0.006%	0.006%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Reno City Center	U.S.	2,973	2,973	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Roosevelt Irrigation District - APS	U.S.	42,278	42,278	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Sacramento Municipal Utility District	U.S.	11,200,174	11,200,174	-	-	1.309%	1.309%	0.000%	0.000%	0.251%	0.251%	0.000%	0.000%	0.284%
2020	WECC		Sahara Las Vegas	U.S.	24,058	24,058	-	-	0.003%	0.003%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Salt River Project	U.S.	32,211,024	32,211,024	-	-	3.764%	3.764%	0.000%	0.000%	0.721%	0.721%	0.000%	0.000%	0.817%
2020	WECC		Seattle City Light	U.S.	9,203,346	9,203,346	-	-	1.075%	1.075%	0.000%	0.000%	0.206%	0.206%	0.000%	0.000%	0.233%
2020	WECC		Shell Energy North America	U.S.	178,056	178,056	-	-	0.021%	0.021%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.005%
2020	WECC		Silver State Energy Association	U.S.	630,597	630,597	-	-	0.074%	0.074%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	WECC		Southern Nevada Water Authority	U.S.	134,155	134,155	-	-	0.016%	0.016%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	WECC		Switch-North	U.S.	131,062	131,062	-	-	0.015%	0.015%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.003%
2020	WECC		Switch-South	U.S.	644,260	644,260	-	-	0.075%	0.075%	0.000%	0.000%	0.014%	0.014%	0.000%	0.000%	0.016%
2020	WECC		The Incorporated County of Los Alamos	U.S.	570,211	570,211	-	-	0.067%	0.067%	0.000%	0.000%	0.013%	0.013%	0.000%	0.000%	0.014%
2020	WECC		Tohono O'odham Utility Authority	U.S.	65,841	65,841	-	-	0.008%	0.008%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.002%
2020	WECC		Tonopah Irrigation District - APS	U.S.	37,444	37,444	-	-	0.004%	0.004%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Town of Center	U.S.	4,721	4,721	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Town of Fredonia - WACM	U.S.	11,018	11,018	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Town of Wickenburg	U.S.	41,322	41,322	-	-	0.005%	0.005%	0.000%	0.000%	0.001%	0.001%	0.000%	0.000%	0.001%
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - PSCO	U.S.	2,944,827	2,944,827	-	-	0.344%	0.344%	0.000%	0.000%	0.066%	0.066%	0.000%	0.000%	0.075%
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - WACM	U.S.	8,159,215	8,159,215	-	-	0.953%	0.953%	0.000%	0.000%	0.183%	0.183%	0.000%	0.000%	0.207%
2020	WECC		Tri-State Generation & Transmission Association, Inc. - PNM	U.S.	2,570,484	2,570,484	-	-	0.300%	0.300%	0.000%	0.000%	0.058%	0.058%	0.000%	0.000%	0.065%
2020	WECC		Truckee Donner Public Utility District	U.S.	166,209	166,209	-	-	0.019%	0.019%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	WECC		Tucson Electric Power Company	U.S.	15,095,543	15,095,543	-	-	1.764%	1.764%	0.000%	0.000%	0.338%	0.338%	0.000%	0.000%	0.383%
2020	WECC		Turlock Irrigation District	U.S.	2,302,974	2,302,974	-	-	0.269%	0.269%	0.000%	0.000%	0.052%	0.052%	0.000%	0.000%	0.058%
2020	WECC		U.S. Army Yuma Proving Ground	U.S.	19,731	19,731	-	-	0.002%	0.002%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.001%
2020	WECC		US Dept of Energy - Kirtland AFB	U.S.	424,965	424,965	-	-	0.050%	0.050%	0.000%	0.000%	0.010%	0.010%	0.000%	0.000%	0.011%
2020	WECC		Western Area Power - Loveland, CO - PSCO	U.S.	174,038	174,038	-	-	0.020%	0.020%	0.000%	0.000%	0.004%	0.004%	0.000%	0.000%	0.004%
2020	WECC		Western Area Power - Loveland, CO - WACM	U.S.	1,305,850	1,305,850	-	-	0.153%	0.153%	0.000%	0.000%	0.029%	0.029%	0.000%	0.000%	0.033%
2020	WECC		Western Area Power Administration - CRSP	U.S.	1,459,739	1,459,739	-	-	0.171%	0.171%	0.000%	0.000%	0.033%	0.033%	0.000%	0.000%	0.037%
2020	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	1,648,036	1,648,036	-	-	0.193%	0.193%	0.000%	0.000%	0.037%	0.037%	0.000%	0.000%	0.042%
2020	WECC		Western Area Power Administration-Desert Southwest Region - WALC	U.S.	2,154,240	2,154,240	-	-	0.252%	0.252%	0.000%	0.000%	0.048%	0.048%	0.000%	0.000%	0.055%
2020	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	363,788	363,788	-	-	0.043%	0.043%	0.000%	0.000%	0.008%	0.008%	0.000%	0.000%	0.009%
2020	WECC		Western Area Power Administration-Upper Great Plains Region - NorthWestern	U.S.	8,382	8,382	-	-	0.001%	0.001%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Wynn Las Vegas	U.S.	155,371	155,371	-	-	0.018%	0.018%	0.000%	0.000%	0.003%	0.003%	0.000%	0.000%	0.004%
2020	WECC		Wyoming Municipal Power Agency	U.S.	-	0	-	-	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
2020	WECC		Yampa Valley Electric Association	U.S.	530,138	530,138	-	-	0.062%	0.062%	0.000%	0.000%	0.012%	0.012%	0.000%	0.000%	0.013%
			TOTAL WECC		855,793,369	718,701,162	122,407,031	14,685,176	100.000%	83.981%	14.303%	1.716%	19.147%	16.080%	2.739%	0.329%	18.221%

Data Year	Regional Entity	NERC ID	Entity	Country	Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
TOTAL ERO					4,469,657,994	3,944,336,587	510,636,231	14,685,176	600.000%	517.716%	80.568%	1.716%	100.000%	88.247%	11.425%	0.329%	100.000%

Summary by Regional Entity					Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL	% of RE total	US Total	Canada Total	Mexico Total	% of ERO Total	US Total	Canada Total	Mexico Total	% of ERO - US Only
2020	MRO				479,196,453	429,545,253	49,651,200	-	100.000%	89.639%	10.361%	0.000%	10.721%	9.610%	1.111%	0.000%	10.890%
2020	NPCC				605,651,000	267,073,000	338,578,000	-	100.000%	44.097%	55.903%	0.000%	13.550%	5.975%	7.575%	0.000%	6.771%
2020	RF				856,671,663	856,671,663	-	-	100.000%	100.000%	0.000%	0.000%	19.166%	19.166%	0.000%	0.000%	21.719%
2020	SERC				1,290,440,174	1,290,440,174	-	-	100.000%	100.000%	0.000%	0.000%	28.871%	28.871%	0.000%	0.000%	32.716%
2020	Texas RE				381,905,336	381,905,336	-	-	100.000%	100.000%	0.000%	0.000%	8.544%	8.544%	0.000%	0.000%	9.682%
2020	WECC				855,793,369	718,701,162	122,407,031	14,685,176	100.000%	83.981%	14.303%	1.716%	19.147%	16.080%	2.739%	0.329%	18.221%
Total					4,469,657,994	3,944,336,587	510,636,231	14,685,176	600.000%	517.716%	80.568%	1.716%	100.000%	88.247%	11.425%	0.329%	100.000%

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	MRO	C-1217	Manitoba Hydro	Canada	1,435,935	-	1,435,935	-	458,805	-	458,805	-	977,130	-	977,130	-
2020	MRO	C-1235	SaskPower	Canada	1,349,083	-	1,349,083	-	431,054	-	431,054	-	918,029	-	918,029	-
2020	MRO	C-1707	AEP-VEMCO	U.S.	36,837	36,837	-	-	11,998	11,998	-	-	24,839	24,839	-	-
2020	MRO	C-1195	Alliant Energy (ALTE- WPL & ALTW IPL)	U.S.	1,519,750	1,519,750	-	-	495,000	495,000	-	-	1,024,750	1,024,750	-	-
2020	MRO	C-1246	American Electric Power Service Corporation	U.S.	1,949,386	1,949,386	-	-	634,937	634,937	-	-	1,314,449	1,314,449	-	-
2020	MRO	C-1196	Ames Municipal Electric System	U.S.	40,804	40,804	-	-	13,290	13,290	-	-	27,513	27,513	-	-
2020	MRO	C-1986	Arkansas Electric Cooperative Corporation (AECC)	U.S.	234,786	234,786	-	-	76,473	76,473	-	-	158,314	158,314	-	-
2020	MRO	C-1604	Atlantic Municipal Utilities (AMU)	U.S.	8,342	8,342	-	-	2,717	2,717	-	-	5,625	5,625	-	-
2020	MRO	C-1199	Basin Electric Power Cooperative (BEPCC)	U.S.	1,221,602	1,221,602	-	-	397,890	397,890	-	-	823,712	823,712	-	-
2020	MRO	C-1247	Board of Public Utilities (Kansas City, KS) (BPU)	U.S.	125,090	125,090	-	-	40,743	40,743	-	-	84,347	84,347	-	-
2020	MRO	C-1620	Board of Public Utilities City of McPherson, KS (MCPHER)	U.S.	57,182	57,182	-	-	18,625	18,625	-	-	38,557	38,557	-	-
2020	MRO	C-1647	Carthage Water and Light	U.S.	16,293	16,293	-	-	5,307	5,307	-	-	10,986	10,986	-	-
2020	MRO	C-1200	Cedar Falls Utilities (CFU)	U.S.	27,795	27,795	-	-	9,053	9,053	-	-	18,742	18,742	-	-
2020	MRO	C-1201	Central Iowa Power Cooperative (CIPCO)	U.S.	159,444	159,444	-	-	51,933	51,933	-	-	107,511	107,511	-	-
2020	MRO	C-1477	Central Minnesota Municipal Power Agency (CMMMPA)	U.S.	21,913	21,913	-	-	7,137	7,137	-	-	14,776	14,776	-	-
2020	MRO	C-1469	Central Valley Electric Cooperative (CVEC)	U.S.	44,028	44,028	-	-	14,341	14,341	-	-	29,688	29,688	-	-
2020	MRO	C-2056	City of Beatrice	U.S.	5,528	5,528	-	-	1,800	1,800	-	-	3,727	3,727	-	-
2020	MRO	C-1556	City of Bentonville (BENVILL)	U.S.	37,904	37,904	-	-	12,346	12,346	-	-	25,558	25,558	-	-
2020	MRO	C-1713	City of Bloomer (Bloomer Electric & Water Co.)	U.S.	3,164	3,164	-	-	1,030	1,030	-	-	2,133	2,133	-	-
2020	MRO	C-1703	City of Chanute (CHANUTEKS)	U.S.	28,293	28,293	-	-	9,215	9,215	-	-	19,078	19,078	-	-
2020	MRO	C-1203	City of Escanaba (EME)	U.S.	7,068	7,068	-	-	2,302	2,302	-	-	4,766	4,766	-	-
2020	MRO	C-1719	City of Kasota	U.S.	206	206	-	-	67	67	-	-	139	139	-	-
2020	MRO	C-2032	City of Lubbock (Lubbock Power and Light)	U.S.	148,205	148,205	-	-	48,272	48,272	-	-	99,933	99,933	-	-
2020	MRO	C-1709	City of Nixa	U.S.	9,418	9,418	-	-	3,068	3,068	-	-	6,350	6,350	-	-
2020	MRO	C-2057	City of South Sioux City, NE	U.S.	9,493	9,493	-	-	3,092	3,092	-	-	6,401	6,401	-	-
2020	MRO	C-1722	City of Spooner	U.S.	1,684	1,684	-	-	549	549	-	-	1,136	1,136	-	-
2020	MRO	C-2052	City of Superior NE	U.S.	1,425	1,425	-	-	464	464	-	-	961	961	-	-
2020	MRO	C-2053	City of Wakefield, NE	U.S.	2,612	2,612	-	-	851	851	-	-	1,761	1,761	-	-
2020	MRO	C-2054	City of Wayne, NE	U.S.	3,723	3,723	-	-	1,213	1,213	-	-	2,510	2,510	-	-
2020	MRO	C-1436	City Utilities of Springfield, MO (SPRM)	U.S.	170,096	170,096	-	-	55,402	55,402	-	-	114,694	114,694	-	-
2020	MRO	C-1204	Corn Belt Power Cooperative (CBPC)	U.S.	107,011	107,011	-	-	34,855	34,855	-	-	72,156	72,156	-	-
2020	MRO	C-1710	Dahlberg Electric Company	U.S.	6,432	6,432	-	-	2,095	2,095	-	-	4,337	4,337	-	-
2020	MRO	C-1207	Dairyland Power Cooperative (DPC)	U.S.	314,818	314,818	-	-	102,540	102,540	-	-	212,278	212,278	-	-
2020	MRO	C-1437	East Texas Electric Cooperative, Inc. (ETEC)	U.S.	61,061	61,061	-	-	19,888	19,888	-	-	41,173	41,173	-	-
2020	MRO	C-1716	Eldridge Electric and Water Utilities	U.S.	2,215	2,215	-	-	722	722	-	-	1,494	1,494	-	-
2020	MRO	C-1250	Empire District Electric Co.	U.S.	275,304	275,304	-	-	89,670	89,670	-	-	185,634	185,634	-	-
2020	MRO	C-1205	Falls City Water & Light Department	U.S.	2,237	2,237	-	-	729	729	-	-	1,509	1,509	-	-
2020	MRO	C-1470	Farmers Electric Cooperative, Inc. of New Mexico (FARMCOOPNM)	U.S.	19,670	19,670	-	-	6,407	6,407	-	-	13,263	13,263	-	-
2020	MRO	C-1206	Fremont Department of Utilities (City of)	U.S.	27,068	27,068	-	-	8,816	8,816	-	-	18,252	18,252	-	-
2020	MRO	C-1208	Geneseo Municipal Utilities	U.S.	3,570	3,570	-	-	1,163	1,163	-	-	2,407	2,407	-	-
2020	MRO	C-1438	Golden Spread Electric Cooperative, Inc (GSEC)	U.S.	341,579	341,579	-	-	111,256	111,256	-	-	230,323	230,323	-	-
2020	MRO	C-1209	Grand Island Utilities Department	U.S.	40,412	40,412	-	-	13,163	13,163	-	-	27,249	27,249	-	-
2020	MRO	C-1251	Grand River Dam Authority (GRDA)	U.S.	331,512	331,512	-	-	107,977	107,977	-	-	223,535	223,535	-	-
2020	MRO	C-1717	Great Lakes Utilities	U.S.	80,079	80,079	-	-	26,083	26,083	-	-	53,996	53,996	-	-
2020	MRO	C-1210	Great River Energy (GRE)	U.S.	716,109	716,109	-	-	233,245	233,245	-	-	482,864	482,864	-	-
2020	MRO	C-1606	Harlan Municipal Utilities	U.S.	867	867	-	-	282	282	-	-	584	584	-	-
2020	MRO	C-1211	Hastings Utilities (HAST)	U.S.	23,868	23,868	-	-	7,774	7,774	-	-	16,094	16,094	-	-
2020	MRO	C-1212	Heartland Consumers Power District (HCPD)	U.S.	26,336	26,336	-	-	8,578	8,578	-	-	17,758	17,758	-	-
2020	MRO	C-1213	Hutchinson Utilities Commission (HUHC)	U.S.	15,488	15,488	-	-	5,044	5,044	-	-	10,443	10,443	-	-
2020	MRO	C-1248	Independence Power & Light (Independence, MO) (INDN)	U.S.	55,943	55,943	-	-	18,221	18,221	-	-	37,722	37,722	-	-
2020	MRO	C-1252	Energy Metro-Kansas City Power & Light (f.k.a. Kansas City Power & Light)	U.S.	835,384	835,384	-	-	272,094	272,094	-	-	563,290	563,290	-	-
2020	MRO	C-1439	Kansas Electric Power Cooperative (KEPC)	U.S.	122,483	122,483	-	-	39,894	39,894	-	-	82,589	82,589	-	-
2020	MRO	C-1440	Kansas Municipal Energy Agency (KMEA)	U.S.	86,987	86,987	-	-	28,333	28,333	-	-	58,654	58,654	-	-
2020	MRO	C-1637	Kansas Power Pool (KPP)	U.S.	47,075	47,075	-	-	15,333	15,333	-	-	31,742	31,742	-	-
2020	MRO	C-1598	Energy MO West Greater MO Operations (f.k.a. KCPL Greater Missouri Operations)	U.S.	477,863	477,863	-	-	155,645	155,645	-	-	322,217	322,217	-	-
2020	MRO	C-2038	Kennett Board of Public Works	U.S.	6,567	6,567	-	-	2,139	2,139	-	-	4,428	4,428	-	-
2020	MRO	C-1472	Lea County Electric Cooperative (LCEC)	U.S.	64,806	64,806	-	-	21,108	21,108	-	-	43,698	43,698	-	-
2020	MRO	C-1215	Lincoln Electric System (LES)	U.S.	172,249	172,249	-	-	56,104	56,104	-	-	116,146	116,146	-	-
2020	MRO	C-1216	Madison, Gas and Electric (MGE)	U.S.	179,378	179,378	-	-	58,425	58,425	-	-	120,953	120,953	-	-
2020	MRO	C-2039	Malden Board of Public Works	U.S.	2,729	2,729	-	-	889	889	-	-	1,840	1,840	-	-
2020	MRO	C-1220	MidAmerican Energy Company (MEC)	U.S.	1,530,388	1,530,388	-	-	498,465	498,465	-	-	1,031,923	1,031,923	-	-
2020	MRO	C-1441	Midwest Energy, Inc (MIDW)	U.S.	94,078	94,078	-	-	30,642	30,642	-	-	63,436	63,436	-	-
2020	MRO	C-1224	Minnesota Municipal Power Agency (MMPA) Avant Energy Inc is Agent	U.S.	106,265	106,265	-	-	34,612	34,612	-	-	71,653	71,653	-	-
2020	MRO	C-1221	Minnesota Power (MP)	U.S.	609,210	609,210	-	-	198,427	198,427	-	-	410,784	410,784	-	-
2020	MRO	C-1222	Minnkota Power Cooperative, Inc. (MPC)	U.S.	213,139	213,139	-	-	69,422	69,422	-	-	143,717	143,717	-	-
2020	MRO	C-1987	Missouri Joint Municipal Electric Utility	U.S.	23,585	23,585	-	-	7,682	7,682	-	-	15,903	15,903	-	-
2020	MRO	C-1223	Missouri River Energy Services	U.S.	146,217	146,217	-	-	47,624	47,624	-	-	98,592	98,592	-	-
2020	MRO	C-1226	Montana-Dakota Utilities Co. (MDU)	U.S.	174,378	174,378	-	-	56,797	56,797	-	-	117,581	117,581	-	-
2020	MRO	C-1607	Montezuma Municipal Light & Power	U.S.	1,224	1,224	-	-	399	399	-	-	826	826	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	MRO	C-2051	Moose Lake Water & Light Commission	U.S.	1,904	1,904	-	-	620	620	-	-	1,284	1,284	-	-
2020	MRO	C-1227	Municipal Energy Agency of Nebraska (MEAN)	U.S.	53,972	53,972	-	-	17,579	17,579	-	-	36,393	36,393	-	-
2020	MRO	C-1228	Muscataine Power and Water (MPW)	U.S.	48,438	48,438	-	-	15,777	15,777	-	-	32,661	32,661	-	-
2020	MRO	C-1229	Nebraska City Utilities	U.S.	6,618	6,618	-	-	2,156	2,156	-	-	4,462	4,462	-	-
2020	MRO	C-1230	Nebraska Public Power District (NPPD)	U.S.	713,707	713,707	-	-	232,463	232,463	-	-	481,245	481,245	-	-
2020	MRO	C-1711	North Central Power Company	U.S.	2,169	2,169	-	-	706	706	-	-	1,463	1,463	-	-
2020	MRO	C-2055	Northeast Power	U.S.	21,391	21,391	-	-	6,967	6,967	-	-	14,424	14,424	-	-
2020	MRO	C-1442	Northeast Texas Electric Cooperative, Inc. (NTEC)	U.S.	177,304	177,304	-	-	57,750	57,750	-	-	119,554	119,554	-	-
2020	MRO	C-1231	NorthWestern Energy (NWE)	U.S.	92,194	92,194	-	-	30,028	30,028	-	-	62,165	62,165	-	-
2020	MRO	C-1712	NorthWestern Wisconsin Electric Company	U.S.	10,323	10,323	-	-	3,362	3,362	-	-	6,961	6,961	-	-
2020	MRO	C-1255	Oklahoma Gas and Electric Co. (OKGE)	U.S.	1,674,253	1,674,253	-	-	545,323	545,323	-	-	1,128,930	1,128,930	-	-
2020	MRO	C-1444	Oklahoma Municipal Power Authority (OMPA)	U.S.	154,098	154,098	-	-	50,192	50,192	-	-	103,907	103,907	-	-
2020	MRO	C-1232	Omaha Public Power District (OPPD)	U.S.	642,568	642,568	-	-	209,292	209,292	-	-	433,276	433,276	-	-
2020	MRO	C-1233	Otter Tail Power Company (OTP)	U.S.	268,427	268,427	-	-	87,430	87,430	-	-	180,997	180,997	-	-
2020	MRO	C-1651	Paragould Light, Water & Cable (PARAGOULD)	U.S.	31,563	31,563	-	-	10,280	10,280	-	-	21,282	21,282	-	-
2020	MRO	C-1725	Peoples Electric Cooperative (PEC)	U.S.	41,223	41,223	-	-	13,427	13,427	-	-	27,796	27,796	-	-
2020	MRO	C-2040	Piggott Municipal Light, Water & Sewer	U.S.	1,902	1,902	-	-	619	619	-	-	1,282	1,282	-	-
2020	MRO	C-1720	Resale Power Group of Iowa	U.S.	29,038	29,038	-	-	9,458	9,458	-	-	19,580	19,580	-	-
2020	MRO	C-1721	Rice Lake Utilities	U.S.	8,581	8,581	-	-	2,795	2,795	-	-	5,786	5,786	-	-
2020	MRO	C-1234	Rochester Public Utilities (RPU)	U.S.	142	142	-	-	46	46	-	-	96	96	-	-
2020	MRO	C-1473	Roosevelt County Electric Cooperative	U.S.	10,247	10,247	-	-	3,338	3,338	-	-	6,910	6,910	-	-
2020	MRO	C-1236	Southern Minnesota Municipal Power Agency (SMMPA)	U.S.	150,296	150,296	-	-	48,953	48,953	-	-	101,343	101,343	-	-
2020	MRO	C-1257	Southwestern Public Service Co. Xcel Energy (SPS)	U.S.	1,245,590	1,245,590	-	-	405,703	405,703	-	-	839,887	839,887	-	-
2020	MRO	C-1256	Sunflower Electric Cooperative (SECI)	U.S.	257,139	257,139	-	-	83,753	83,753	-	-	173,386	173,386	-	-
2020	MRO	C-1475	Tri County Electric Cooperative, Inc. of Oklahoma (TRICEC)	U.S.	10,569	10,569	-	-	3,442	3,442	-	-	7,127	7,127	-	-
2020	MRO	C-1665	Upper Peninsula Power Co (UPPC)	U.S.	43,332	43,332	-	-	14,114	14,114	-	-	29,218	29,218	-	-
2020	MRO	C-1714	Village of Caddott	U.S.	685	685	-	-	223	223	-	-	462	462	-	-
2020	MRO	C-1260	Evergy Kansas Central-Weststart Energy (f.k.a. Westar Energy)	U.S.	1,128,136	1,128,136	-	-	367,447	367,447	-	-	760,690	760,690	-	-
2020	MRO	C-1239	Western Area Power Administration Rocky Mountain Region (LM) (WAPA-RMR)	U.S.	2,467	2,467	-	-	803	803	-	-	1,663	1,663	-	-
2020	MRO	C-1240	Western Area Power Administration Upper Great Plains (UM) (WAPA)	U.S.	504,838	504,838	-	-	164,431	164,431	-	-	340,406	340,406	-	-
2020	MRO	C-1259	Western Farmers Electric Cooperative (WFEC)	U.S.	490,235	490,235	-	-	159,675	159,675	-	-	330,560	330,560	-	-
2020	MRO	C-1501	West Texas Municipal Power Agency (WTMPA)	U.S.	7,081	7,081	-	-	2,306	2,306	-	-	4,774	4,774	-	-
2020	MRO	C-1242	Wisconsin Public Power, Inc. (East and West regions) (WPPI)	U.S.	279,799	279,799	-	-	91,134	91,134	-	-	188,665	188,665	-	-
2020	MRO	C-1983	Wolverine Power Marketing Cooperative	U.S.	2,469	2,469	-	-	804	804	-	-	1,665	1,665	-	-
2020	MRO	C-1244	Xcel Energy Company Northern States Power (NSP)	U.S.	2,285,308	2,285,308	-	-	744,351	744,351	-	-	1,540,957	1,540,957	-	-
TOTAL MRO					26,420,677	23,635,659	2,785,018	-	8,588,263	7,698,403	889,860	-	17,832,414	15,937,255	1,895,159	-
2020	NPCC	C-1336	New England	U.S.	6,306,871	6,306,871	-	-	2,094,659	2,094,659	-	-	4,212,212	4,212,212	-	-
2020	NPCC	C-1339	New York	U.S.	8,104,146	8,104,146	-	-	2,691,881	2,691,881	-	-	5,412,265	5,412,265	-	-
2020	NPCC	C-1337	Ontario	Canada	3,979,224	-	3,979,224	-	1,728,238	-	1,728,238	-	2,250,986	-	2,250,986	-
2020	NPCC		Quebec	Canada	5,916,215	-	5,916,215	-	2,550,946	-	2,550,946	-	3,365,269	-	3,365,269	-
2020	NPCC	C-1341	Hydro Quebec	Canada	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC	C-1572	Regie	Canada	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC	C-1705	New Brunswick	Canada	583,679	-	583,679	-	182,111	-	182,111	-	401,569	-	401,569	-
2020	NPCC	C-1340	Nova Scotia	Canada	464,845	-	464,845	-	194,832	-	194,832	-	270,012	-	270,012	-
TOTAL NPCC					25,354,980	14,411,017	10,943,963	-	9,442,667	4,786,540	4,656,127	-	15,912,313	9,624,477	6,287,836	-
2020	RF	C-1102	Cannelton Utilities	U.S.	567	567	-	-	224	224	-	-	343	343	-	-
2020	RF	C-1106	City of Croswell	U.S.	2,020	2,020	-	-	799	799	-	-	1,221	1,221	-	-
2020	RF	C-1490	City of Lansing	U.S.	93,015	93,015	-	-	36,806	36,806	-	-	56,210	56,210	-	-
2020	RF	C-1120	Cloverland Electric Cooperative	U.S.	32,051	32,051	-	-	12,682	12,682	-	-	19,368	19,368	-	-
2020	RF	C-1122	CMS ERM Michigan LLC	U.S.	7,997	7,997	-	-	3,164	3,164	-	-	4,833	4,833	-	-
2020	RF	C-1124	Constellation New Energy (MECS-CONS)	U.S.	82,093	82,093	-	-	32,484	32,484	-	-	49,609	49,609	-	-
2020	RF	C-1123	Constellation New Energy (MECS-DET)	U.S.	83,153	83,153	-	-	32,903	32,903	-	-	50,250	50,250	-	-
2020	RF	C-1126	Consumers Energy Company	U.S.	1,424,301	1,424,301	-	-	563,586	563,586	-	-	860,714	860,714	-	-
2020	RF	C-1128	DTE Electric Company	U.S.	2,146,011	2,146,011	-	-	849,162	849,162	-	-	1,296,849	1,296,849	-	-
2020	RF	C-1166	Duke Energy Indiana	U.S.	1,256,143	1,256,143	-	-	497,048	497,048	-	-	759,096	759,096	-	-
2020	RF	C-1135	Ferdinand Municipal Light & Water	U.S.	2,123	2,123	-	-	840	840	-	-	1,283	1,283	-	-
2020	RF	C-1646	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-CONS)	U.S.	27,926	27,926	-	-	11,050	11,050	-	-	16,876	16,876	-	-
2020	RF	C-1549	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-DET)	U.S.	1,242	1,242	-	-	491	491	-	-	750	750	-	-
2020	RF	C-1145	Hoosier Energy	U.S.	336,021	336,021	-	-	132,961	132,961	-	-	203,059	203,059	-	-
2020	RF	C-1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	133,449	133,449	-	-	52,805	52,805	-	-	80,644	80,644	-	-
2020	RF	C-1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	17,675	17,675	-	-	6,994	6,994	-	-	10,681	10,681	-	-
2020	RF	C-1486	Indiana Municipal Power Agency (SIGE)	U.S.	24,669	24,669	-	-	9,761	9,761	-	-	14,907	14,907	-	-
2020	RF	C-1149	Indianapolis Power & Light Co.	U.S.	597,159	597,159	-	-	236,292	236,292	-	-	360,867	360,867	-	-
2020	RF	C-2050	Logansport Municipal Utility (LMU)	U.S.	18,051	18,051	-	-	7,142	7,142	-	-	10,908	10,908	-	-
2020	RF	C-1666	Constellation New Energy	U.S.	13,899	13,899	-	-	5,500	5,500	-	-	8,399	8,399	-	-
2020	RF	C-1614	Just Energy (MECS-DET)	U.S.	251	251	-	-	99	99	-	-	152	152	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	RF	C-1154	Michigan Public Power Agency	U.S.	163,986	163,986	-	-	64,888	64,888	-	-	99,098	99,098	-	-
2020	RF	C-1155	Michigan South Central Power Agency	U.S.	33,135	33,135	-	-	13,111	13,111	-	-	20,024	20,024	-	-
2020	RF	C-1163	Northern Indiana Public Service Co.	U.S.	693,994	693,994	-	-	274,609	274,609	-	-	419,385	419,385	-	-
2020	RF	C-1164	Ontonagon County Rural Electrification Assoc.	U.S.	1,330	1,330	-	-	526	526	-	-	804	804	-	-
2020	RF	C-1265	PJM Interconnection, LLC	U.S.	29,182,447	29,182,447	-	-	11,547,300	11,547,300	-	-	17,635,147	17,635,147	-	-
2020	RF	C-1172	Calpine Energy Solutions, LLC (MECS-CONS)	U.S.	16,287	16,287	-	-	6,445	6,445	-	-	9,842	9,842	-	-
2020	RF	C-1171	Calpine Energy Solutions, LLC (MECS-DET)	U.S.	27,593	27,593	-	-	10,918	10,918	-	-	16,675	16,675	-	-
2020	RF	C-1176	Direct Energy	U.S.	1,023	1,023	-	-	405	405	-	-	618	618	-	-
2020	RF	C-1174	Direct Energy	U.S.	41,382	41,382	-	-	16,374	16,374	-	-	25,007	25,007	-	-
2020	RF	C-1581	Spartan Renewable Energy	U.S.	6,998	6,998	-	-	2,769	2,769	-	-	4,229	4,229	-	-
2020	RF	C-1985	Spartan Renewable Energy (MI UP)	U.S.	2,762	2,762	-	-	1,093	1,093	-	-	1,669	1,669	-	-
2020	RF	C-1180	Thumb Electric Cooperative	U.S.	8,830	8,830	-	-	3,494	3,494	-	-	5,336	5,336	-	-
2020	RF	C-2027	Upper Michigan Energy Resources	U.S.	79,694	79,694	-	-	31,534	31,534	-	-	48,159	48,159	-	-
2020	RF	C-1181	Vectren Energy, a CenterPoint Energy Company	U.S.	215,835	215,835	-	-	85,404	85,404	-	-	130,431	130,431	-	-
2020	RF	C-1184	Wabash Valley Power Alliance (DUKE CIN)	U.S.	138,576	138,576	-	-	54,834	54,834	-	-	83,742	83,742	-	-
2020	RF	C-1488	Wabash Valley Power Alliance (NIPSCO)	U.S.	80,268	80,268	-	-	31,762	31,762	-	-	48,507	48,507	-	-
2020	RF	C-1185	Wisconsin Electric Power Co.	U.S.	1,126,580	1,126,580	-	-	445,780	445,780	-	-	680,800	680,800	-	-
2020	RF	C-2041	Wisconsin Public Service Co.	U.S.	496,083	496,083	-	-	196,297	196,297	-	-	299,786	299,786	-	-
2020	RF	C-1189	Wolverine Power Marketing Cooperative	U.S.	30,161	30,161	-	-	11,934	11,934	-	-	18,226	18,226	-	-
2020	RF	C-1191	Wolverine Power Supply Cooperative	U.S.	128,907	128,907	-	-	51,008	51,008	-	-	77,900	77,900	-	-
2020	RF	C-1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	25,718	25,718	-	-	10,176	10,176	-	-	15,541	15,541	-	-
TOTAL RELIABILITYFIRST					38,801,401	38,801,401	-	-	15,353,456	15,353,456	-	-	23,447,945	23,447,945	-	-
2020	SERC	C-1267	Alabama Municipal Electric Authority	U.S.	125,663	125,663	-	-	60,641	60,641	-	-	65,023	65,023	-	-
2020	SERC	C-1268	Alabama Power Company	U.S.	1,973,716	1,973,716	-	-	952,443	952,443	-	-	1,021,274	1,021,274	-	-
2020	SERC	C-1269	Ameren - Illinois	U.S.	1,477,623	1,477,623	-	-	713,046	713,046	-	-	764,577	764,577	-	-
2020	SERC	C-1271	Ameren - Missouri	U.S.	1,308,555	1,308,555	-	-	631,460	631,460	-	-	677,095	677,095	-	-
2020	SERC	C-1273	Associated Electric Cooperative Inc.	U.S.	854,058	854,058	-	-	412,137	412,137	-	-	441,921	441,921	-	-
2020	SERC	C-1582	Beauregard Electric Cooperative, Inc.	U.S.	48,713	48,713	-	-	23,507	23,507	-	-	25,206	25,206	-	-
2020	SERC	C-1462	Benton Utility District	U.S.	8,182	8,182	-	-	3,948	3,948	-	-	4,233	4,233	-	-
2020	SERC	C-1274	Big Rivers Electric Corporation	U.S.	127,795	127,795	-	-	61,669	61,669	-	-	66,126	66,126	-	-
2020	SERC	C-1275	Black Warrior EMC	U.S.	12,963	12,963	-	-	6,256	6,256	-	-	6,708	6,708	-	-
2020	SERC	C-1276	Blue Ridge EMC	U.S.	50,847	50,847	-	-	24,537	24,537	-	-	26,310	26,310	-	-
2020	SERC	C-1628	Brazos Electric Power Cooperative, Inc.	U.S.	19,915	19,915	-	-	9,610	9,610	-	-	10,305	10,305	-	-
2020	SERC	C-1463	Canton, MS	U.S.	4,422	4,422	-	-	2,134	2,134	-	-	2,288	2,288	-	-
2020	SERC	C-1277	Central Electric Power Cooperative Inc.	U.S.	661,744	661,744	-	-	319,333	319,333	-	-	342,411	342,411	-	-
2020	SERC	C-1667	Century Aluminum - Hawesville	U.S.	112,430	112,430	-	-	54,254	54,254	-	-	58,175	58,175	-	-
2020	SERC	C-1668	Century Aluminum - Seabee	U.S.	119,941	119,941	-	-	57,879	57,879	-	-	62,062	62,062	-	-
2020	SERC	C-1278	City of Blountstown FL	U.S.	1,251	1,251	-	-	604	604	-	-	647	647	-	-
2020	SERC	C-1279	City of Camden SC	U.S.	6,840	6,840	-	-	3,301	3,301	-	-	3,539	3,539	-	-
2020	SERC	C-1280	City of Collins MS	U.S.	1,657	1,657	-	-	799	799	-	-	857	857	-	-
2020	SERC	C-1281	City of Columbia MO	U.S.	42,599	42,599	-	-	20,557	20,557	-	-	22,042	22,042	-	-
2020	SERC	C-1282	City of Conway AR (Conway Corporation)	U.S.	34,302	34,302	-	-	16,553	16,553	-	-	17,749	17,749	-	-
2020	SERC	C-1284	City of Evergreen AL	U.S.	2,032	2,032	-	-	981	981	-	-	1,052	1,052	-	-
2020	SERC	C-1285	City of Hampton GA	U.S.	1,255	1,255	-	-	606	606	-	-	650	650	-	-
2020	SERC	C-1286	City of Hartford AL	U.S.	1,131	1,131	-	-	546	546	-	-	585	585	-	-
2020	SERC	C-1287	City of Henderson (KY) Municipal Power & Light	U.S.	20,706	20,706	-	-	9,992	9,992	-	-	10,714	10,714	-	-
2020	SERC	C-1288	City of North Little Rock AR (DENL)	U.S.	32,840	32,840	-	-	15,848	15,848	-	-	16,993	16,993	-	-
2020	SERC	C-1289	City of Orangeburg SC Department of Public Utilities	U.S.	30,083	30,083	-	-	14,517	14,517	-	-	15,566	15,566	-	-
2020	SERC	C-1290	City of Robertsdale AL	U.S.	3,220	3,220	-	-	1,554	1,554	-	-	1,666	1,666	-	-
2020	SERC	C-1291	City of Ruston LA (DERS)	U.S.	9,598	9,598	-	-	4,632	4,632	-	-	4,966	4,966	-	-
2020	SERC	C-1292	Seneca Light & Power	U.S.	5,919	5,919	-	-	2,856	2,856	-	-	3,063	3,063	-	-
2020	SERC	C-1115	City of Springfield (CWLP)	U.S.	59,464	59,464	-	-	28,695	28,695	-	-	30,769	30,769	-	-
2020	SERC	C-1465	City of Thayer, MO	U.S.	851	851	-	-	410	410	-	-	440	440	-	-
2020	SERC	C-1293	City of Troy AL	U.S.	16,512	16,512	-	-	7,968	7,968	-	-	8,544	8,544	-	-
2020	SERC	C-1294	City of West Memphis AR (West Memphis Utilities)	U.S.	13,180	13,180	-	-	6,360	6,360	-	-	6,820	6,820	-	-
2020	SERC	C-1583	Claiborne Electric Cooperative, Inc.	U.S.	23,169	23,169	-	-	11,181	11,181	-	-	11,989	11,989	-	-
2020	SERC	C-1584	Concordia Electric Cooperative, Inc.	U.S.	7,673	7,673	-	-	3,703	3,703	-	-	3,971	3,971	-	-
2020	SERC	C-1726	Cube Hydro Carolinas	U.S.	732	732	-	-	353	353	-	-	379	379	-	-
2020	SERC	C-1283	Dalton Utilities	U.S.	73,485	73,485	-	-	35,461	35,461	-	-	38,024	38,024	-	-
2020	SERC	C-1585	Dixie Electric Membership Corporation	U.S.	78,357	78,357	-	-	37,812	37,812	-	-	40,545	40,545	-	-
2020	SERC	C-1295	Dominion Virginia Power	U.S.	3,240,635	3,240,635	-	-	1,563,811	1,563,811	-	-	1,676,824	1,676,824	-	-
2020	SERC	C-1296	Duke Energy Carolinas, LLC	U.S.	3,380,362	3,380,362	-	-	1,631,238	1,631,238	-	-	1,749,124	1,749,124	-	-
2020	SERC	C-1466	Durant, MS	U.S.	829	829	-	-	400	400	-	-	429	429	-	-
2020	SERC	C-1478	LG&E and KU Services Co as agent for LG&E Co and KU Co	U.S.	1,140,130	1,140,130	-	-	550,185	550,185	-	-	589,946	589,946	-	-
2020	SERC	C-1297	East Kentucky Power Cooperative	U.S.	498,601	498,601	-	-	240,607	240,607	-	-	257,995	257,995	-	-
2020	SERC	C-1298	East Mississippi Electric Power Association	U.S.	14,834	14,834	-	-	7,158	7,158	-	-	7,675	7,675	-	-
2020	SERC	C-1669	Electricities of North Carolina Inc	U.S.	419,876	419,876	-	-	202,617	202,617	-	-	217,259	217,259	-	-
2020	SERC	C-1300	EnergyUnited EMC	U.S.	96,360	96,360	-	-	46,500	46,500	-	-	49,860	49,860	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-B

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	SERC	C-1301	Entergy	U.S.	4,316,839	4,316,839	-	-	2,083,147	2,083,147	-	-	2,233,692	2,233,692	-	-
2020	SERC	C-1302	Fayetteville (NC) Public Works Commission	U.S.	74,181	74,181	-	-	35,797	35,797	-	-	38,384	38,384	-	-
2020	SERC	C-1303	Florida Public Utilities (FL Panhandle Load)	U.S.	11,061	11,061	-	-	5,337	5,337	-	-	5,723	5,723	-	-
2020	SERC	C-1304	French Broad EMC	U.S.	20,189	20,189	-	-	9,742	9,742	-	-	10,447	10,447	-	-
2020	SERC	C-1305	Georgia Power Company	U.S.	3,098,923	3,098,923	-	-	1,495,426	1,495,426	-	-	1,603,497	1,603,497	-	-
2020	SERC	C-1306	Georgia System Optns Corporation	U.S.	1,486,429	1,486,429	-	-	717,296	717,296	-	-	769,133	769,133	-	-
2020	SERC	C-1479	Greenwood (MS) Utilities Commission	U.S.	10,313	10,313	-	-	4,977	4,977	-	-	5,337	5,337	-	-
2020	SERC	C-1307	Greenwood (SC) Commissioners of Public Works	U.S.	11,508	11,508	-	-	5,553	5,553	-	-	5,955	5,955	-	-
2020	SERC	C-1308	Gulf Power Company	U.S.	433,459	433,459	-	-	209,171	209,171	-	-	224,288	224,288	-	-
2020	SERC	C-1586	Haywood EMC	U.S.	12,401	12,401	-	-	5,984	5,984	-	-	6,417	6,417	-	-
2020	SERC	C-1984	Hoosier Energy REC, Inc	U.S.	13,797	13,797	-	-	6,658	6,658	-	-	7,139	7,139	-	-
2020	SERC	C-1309	Illinois Municipal Electric Agency	U.S.	63,992	63,992	-	-	30,880	30,880	-	-	33,112	33,112	-	-
2020	SERC	C-1480	Itta Bena, MS	U.S.	466	466	-	-	225	225	-	-	241	241	-	-
2020	SERC	C-1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	8,844	8,844	-	-	4,268	4,268	-	-	4,576	4,576	-	-
2020	SERC	C-1617	Kentucky Municipal Power	U.S.	24,810	24,810	-	-	11,972	11,972	-	-	12,837	12,837	-	-
2020	SERC	C-1481	Municipal Energy Agency of MS-Kosciusko, MS	U.S.	2,479	2,479	-	-	1,196	1,196	-	-	1,283	1,283	-	-
2020	SERC	C-1482	Municipal Energy Agency of MS-Leland, MS	U.S.	1,036	1,036	-	-	500	500	-	-	536	536	-	-
2020	SERC	C-1313	McCormick Commission of Public Works	U.S.	664	664	-	-	320	320	-	-	344	344	-	-
2020	SERC	C-1314	Mississippi Power Company	U.S.	360,572	360,572	-	-	173,999	173,999	-	-	186,573	186,573	-	-
2020	SERC	C-1630	Mt. Carmel Public Utility	U.S.	3,603	3,603	-	-	1,739	1,739	-	-	1,864	1,864	-	-
2020	SERC	C-1315	Municipal Electric Authority of Georgia	U.S.	403,016	403,016	-	-	194,481	194,481	-	-	208,535	208,535	-	-
2020	SERC	C-1316	N.C. Electric Membership Corp.	U.S.	478,989	478,989	-	-	231,142	231,142	-	-	247,847	247,847	-	-
2020	SERC	C-1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	10,602	10,602	-	-	5,116	5,116	-	-	5,486	5,486	-	-
2020	SERC	C-1574	Northern Virginia Electric Cooperative	U.S.	238,020	238,020	-	-	114,860	114,860	-	-	123,160	123,160	-	-
2020	SERC	C-1319	Old Dominion Electric Cooperative	U.S.	171,482	171,482	-	-	82,751	82,751	-	-	88,731	88,731	-	-
2020	SERC	C-1618	Osceola (Arkansas) Municipal Light and Power	U.S.	4,938	4,938	-	-	2,383	2,383	-	-	2,555	2,555	-	-
2020	SERC	C-1320	Owensboro (KY) Municipal Utilities	U.S.	28,804	28,804	-	-	13,900	13,900	-	-	14,904	14,904	-	-
2020	SERC	C-1321	Piedmont EMC in Duke and Progress Areas	U.S.	18,412	18,412	-	-	8,885	8,885	-	-	9,527	9,527	-	-
2020	SERC	C-1323	Piedmont Municipal Power Agency (PMPA)	U.S.	85,917	85,917	-	-	41,460	41,460	-	-	44,457	44,457	-	-
2020	SERC	C-1589	Pointe Coupee Electric Memb. Corp.	U.S.	8,480	8,480	-	-	4,092	4,092	-	-	4,388	4,388	-	-
2020	SERC	C-1266	PowerSouth Energy	U.S.	336,560	336,560	-	-	162,411	162,411	-	-	174,149	174,149	-	-
2020	SERC	C-1330	Prairie Power, Inc.	U.S.	57,903	57,903	-	-	27,942	27,942	-	-	29,961	29,961	-	-
2020	SERC	C-1706	Duke Energy Progress	U.S.	1,919,396	1,919,396	-	-	926,230	926,230	-	-	993,166	993,166	-	-
2020	SERC	C-1325	Rutherford EMC	U.S.	50,894	50,894	-	-	24,560	24,560	-	-	26,335	26,335	-	-
2020	SERC	C-1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	74,100	74,100	-	-	35,758	35,758	-	-	38,342	38,342	-	-
2020	SERC	C-1326	South Carolina Electric & Gas Company	U.S.	823,919	823,919	-	-	397,593	397,593	-	-	426,326	426,326	-	-
2020	SERC	C-1327	South Carolina Public Service Authority	U.S.	331,454	331,454	-	-	159,947	159,947	-	-	171,506	171,506	-	-
2020	SERC	C-1590	South Louisiana Electric Cooperative Association	U.S.	20,140	20,140	-	-	9,719	9,719	-	-	10,421	10,421	-	-
2020	SERC	C-1328	Cooperative Energy (formerly SMEPA)	U.S.	358,646	358,646	-	-	173,069	173,069	-	-	185,577	185,577	-	-
2020	SERC	C-1329	Southern Illinois Power Cooperative	U.S.	48,386	48,386	-	-	23,349	23,349	-	-	25,037	25,037	-	-
2020	SERC	C-1591	Southwest Louisiana Electric Membership Corporation	U.S.	92,712	92,712	-	-	44,739	44,739	-	-	47,972	47,972	-	-
2020	SERC	C-1619	Southwestern Electric Cooperative, Inc.	U.S.	16,570	16,570	-	-	7,996	7,996	-	-	8,574	8,574	-	-
2020	SERC	C-1331	Tennessee Valley Authority	U.S.	5,693,770	5,693,770	-	-	2,747,603	2,747,603	-	-	2,946,167	2,946,167	-	-
2020	SERC	C-1632	East Texas Electric Cooperative (ETEC)	U.S.	-	-	-	-	-	-	-	-	-	-	-	-
2020	SERC	C-1332	Tombigbee Electric Cooperative Inc.	U.S.	4,579	4,579	-	-	2,210	2,210	-	-	2,369	2,369	-	-
2020	SERC	C-1594	Town of Sharpsburg, N.C.	U.S.	689	689	-	-	332	332	-	-	356	356	-	-
2020	SERC	C-1595	Town of Stantonburg, N.C. JRO	U.S.	2,049	2,049	-	-	989	989	-	-	1,060	1,060	-	-
2020	SERC	C-1333	Town of Waynesville NC	U.S.	2,900	2,900	-	-	1,399	1,399	-	-	1,501	1,501	-	-
2020	SERC	C-1334	Town of Winstonsboro SC	U.S.	2,173	2,173	-	-	1,048	1,048	-	-	1,124	1,124	-	-
2020	SERC	C-1335	Town of Winterville NC	U.S.	1,972	1,972	-	-	952	952	-	-	1,021	1,021	-	-
2020	SERC	C-1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	39,072	39,072	-	-	18,855	18,855	-	-	20,217	20,217	-	-
2020	SERC	C-1435	Arkansas Electric Cooperative Corporation	U.S.	381,600	381,600	-	-	184,146	184,146	-	-	197,454	197,454	-	-
2020	SERC	C-1557	City of Clarksdale, Mississippi	U.S.	5,289	5,289	-	-	2,552	2,552	-	-	2,737	2,737	-	-
2020	SERC	C-1708	City of Abbeville	U.S.	4,640	4,640	-	-	2,239	2,239	-	-	2,401	2,401	-	-
2020	SERC	C-1558	Hope Water & Light (HWL)	U.S.	10,310	10,310	-	-	4,975	4,975	-	-	5,335	5,335	-	-
2020	SERC	C-1559	City of Minden	U.S.	4,862	4,862	-	-	2,346	2,346	-	-	2,516	2,516	-	-
2020	SERC	C-1249	Cleco Power LLC	U.S.	389,734	389,734	-	-	188,071	188,071	-	-	201,663	201,663	-	-
2020	SERC	C-1648	Jonesboro City Water & Light	U.S.	53,022	53,022	-	-	25,587	25,587	-	-	27,436	27,436	-	-
2020	SERC	C-1471	Lafayette Utilities System	U.S.	73,463	73,463	-	-	35,450	35,450	-	-	38,012	38,012	-	-
2020	SERC	C-1253	Louisiana Energy & Power Authority (LEPA)	U.S.	34,262	34,262	-	-	16,534	16,534	-	-	17,728	17,728	-	-
2020	SERC	C-1443	Missouri Joint Municipal Electric Utility Commission	U.S.	95,996	95,996	-	-	46,324	46,324	-	-	49,672	49,672	-	-
2020	SERC	C-1639	OzMo Ozark Missouri, West Plains MO	U.S.	6,586	6,586	-	-	3,178	3,178	-	-	3,408	3,408	-	-
2020	SERC	C-1653	Poplar Bluff Municipal Utilities	U.S.	13,089	13,089	-	-	6,316	6,316	-	-	6,773	6,773	-	-
2020	SERC	C-1636	City of Prescott	U.S.	2,939	2,939	-	-	1,418	1,418	-	-	1,521	1,521	-	-
2020	SERC	C-1561	Public Service Commission of Yazoo City of Mississippi	U.S.	4,086	4,086	-	-	1,972	1,972	-	-	2,114	2,114	-	-
2020	SERC	C-1654	Sikeston Board of Municipal Utilities	U.S.	13,750	13,750	-	-	6,635	6,635	-	-	7,115	7,115	-	-
2020	SERC	C-1074	Alachua, City of	U.S.	5,190	5,190	-	-	2,504	2,504	-	-	2,685	2,685	-	-
2020	SERC	C-1075	Bartow, City of	U.S.	11,440	11,440	-	-	5,521	5,521	-	-	5,920	5,920	-	-
2020	SERC	C-1076	Chattahoochee, City of	U.S.	1,351	1,351	-	-	652	652	-	-	699	699	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)						
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico			
2020	SERC	C-1077	Florida Keys Electric Cooperative Assn	U.S.	29,583	29,583	-	-	14,276	14,276	-	-	15,307	15,307	-	-			
2020	SERC	C-1078	Florida Power & Light Co.	U.S.	4,736,006	4,736,006	-	-	2,285,421	2,285,421	-	-	2,450,584	2,450,584	-	-			
2020	SERC	C-1079	Florida Public Utilities Company	U.S.	13,097	13,097	-	-	6,320	6,320	-	-	6,777	6,777	-	-			
2020	SERC	C-1080	Gainesville Regional Utilities	U.S.	73,429	73,429	-	-	35,434	35,434	-	-	37,995	37,995	-	-			
2020	SERC	C-1081	Homestead, City of	U.S.	22,618	22,618	-	-	10,915	10,915	-	-	11,703	11,703	-	-			
2020	SERC	C-1082	JEA	U.S.	473,159	473,159	-	-	228,329	228,329	-	-	244,830	244,830	-	-			
2020	SERC	C-1083	Lakeland Electric	U.S.	121,546	121,546	-	-	58,653	58,653	-	-	62,892	62,892	-	-			
2020	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	166,871	166,871	-	-	80,526	80,526	-	-	86,345	86,345	-	-			
2020	SERC	C-1661	City of Lake Worth	U.S.	17,752	17,752	-	-	8,566	8,566	-	-	9,185	9,185	-	-			
2020	SERC	C-1084	Mount Dora, City of	U.S.	3,465	3,465	-	-	1,672	1,672	-	-	1,793	1,793	-	-			
2020	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	17,548	17,548	-	-	8,468	8,468	-	-	9,080	9,080	-	-			
2020	SERC	C-1086	Orlando Utilities Commission	U.S.	283,629	283,629	-	-	136,869	136,869	-	-	146,760	146,760	-	-			
2020	SERC	C-1087	Duke Energy Florida	U.S.	1,604,247	1,604,247	-	-	774,150	774,150	-	-	830,097	830,097	-	-			
2020	SERC	C-1088	Quincy, City of	U.S.	5,432	5,432	-	-	2,621	2,621	-	-	2,811	2,811	-	-			
2020	SERC	C-1089	Reedy Creek Improvement District	U.S.	36,319	36,319	-	-	17,526	17,526	-	-	18,793	18,793	-	-			
2020	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	31,987	31,987	-	-	15,436	15,436	-	-	16,551	16,551	-	-			
2020	SERC	C-1091	Tallahassee, City of	U.S.	101,311	101,311	-	-	48,889	48,889	-	-	52,422	52,422	-	-			
2020	SERC	C-1092	Tampa Electric Company	U.S.	781,975	781,975	-	-	377,352	377,352	-	-	404,623	404,623	-	-			
2020	SERC	C-1093	Wauchula, City of	U.S.	2,470	2,470	-	-	1,192	1,192	-	-	1,278	1,278	-	-			
2020	SERC	C-1094	Williston, City of	U.S.	1,262	1,262	-	-	609	609	-	-	653	653	-	-			
2020	SERC	C-1095	Winter Park, City of	U.S.	16,645	16,645	-	-	8,032	8,032	-	-	8,613	8,613	-	-			
2020	SERC	C-1724	Moore Haven, City of	U.S.	653	653	-	-	315	315	-	-	338	338	-	-			
2020	SERC	C-1072	Florida Municipal Power Agency	U.S.	246,496	246,496	-	-	118,950	118,950	-	-	127,546	127,546	-	-			
2020	SERC	C-1073	Seminole Electric Cooperative	U.S.	580,215	580,215	-	-	279,990	279,990	-	-	300,225	300,225	-	-			
TOTAL SERC					47,926,483	47,926,483	-	-	23,127,549	23,127,549	-	-	24,798,934	24,798,934	-	-			
2020	Texas RE	C-1019	ERCOT	U.S.	21,847,955	21,847,955	-	-	6,844,590	6,844,590	-	-	15,003,365	15,003,365	-	-			
TOTAL ERCOT					21,847,955	21,847,955	-	-	6,844,590	6,844,590	-	-	15,003,365	15,003,365	-	-			
2020	WECC		Alberta Electric System Operator	Canada	1,771,762	-	1,771,762	-	769,873	-	769,873	-	1,001,889	-	1,001,889	-			
2020	WECC		British Columbia Hydro & Power Authority	Canada	3,466,291	-	3,466,291	-	1,116,972	-	1,116,972	-	2,349,319	-	2,349,319	-			
2020	WECC		Centro Nacional de Control de Energia	Mexico	816,759	-	-	816,759	263,191	-	-	263,191	553,568	-	-	553,568			
2020	WECC		3 Phases Renewables	U.S.	204	204	-	-	76	76	-	-	128	128	-	-			
2020	WECC		Aguila Irrigation District - APS	U.S.	1,733	1,733	-	-	644	644	-	-	1,089	1,089	-	-			
2020	WECC		Aha Macav Power Service	U.S.	862	862	-	-	320	320	-	-	542	542	-	-			
2020	WECC		Ajo Improvement District	U.S.	582	582	-	-	216	216	-	-	366	366	-	-			
2020	WECC		Arizona Electric Power Cooperative, Inc	U.S.	182,857	182,857	-	-	67,927	67,927	-	-	114,931	114,931	-	-			
2020	WECC		Arizona Public Service Company	U.S.	1,432,293	1,432,293	-	-	532,059	532,059	-	-	900,234	900,234	-	-			
2020	WECC		Arkansas River Power Authority (ARPA)	U.S.	11,705	11,705	-	-	4,348	4,348	-	-	7,357	7,357	-	-			
2020	WECC		Avangrid Renewables	U.S.	1,035	1,035	-	-	385	385	-	-	651	651	-	-			
2020	WECC		Avista Corporation	U.S.	448,960	448,960	-	-	166,777	166,777	-	-	282,183	282,183	-	-			
2020	WECC		Barrick Goldstrike Mines Inc.	U.S.	70,335	70,335	-	-	26,128	26,128	-	-	44,207	44,207	-	-			
2020	WECC		Basin Electric Power Cooperative - NorthWestern	U.S.	39,801	39,801	-	-	14,785	14,785	-	-	25,016	25,016	-	-			
2020	WECC		Basin Electric Power Cooperative - WACM	U.S.	97,201	97,201	-	-	36,108	36,108	-	-	61,094	61,094	-	-			
2020	WECC		Basin Electric Power Cooperative - WAUW	U.S.	7,001	7,001	-	-	2,601	2,601	-	-	4,400	4,400	-	-			
2020	WECC		Beartooth Electric Cooperative	U.S.	3,918	3,918	-	-	1,455	1,455	-	-	2,462	2,462	-	-			
2020	WECC		Big Horn County Electric Cooperative	U.S.	3,404	3,404	-	-	1,264	1,264	-	-	2,139	2,139	-	-			
2020	WECC		Black Hills Energy	U.S.	99,190	99,190	-	-	36,846	36,846	-	-	62,343	62,343	-	-			
2020	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	223,010	223,010	-	-	82,842	82,842	-	-	140,168	140,168	-	-			
2020	WECC		Black Hills State University South Dakota	U.S.	795	795	-	-	295	295	-	-	500	500	-	-			
2020	WECC		Bonneville Power Administration-Transmission	U.S.	2,647,736	2,647,736	-	-	983,564	983,564	-	-	1,664,172	1,664,172	-	-			
2020	WECC		Bonneville Power Administration-Power Services	U.S.	312,382	312,382	-	-	116,042	116,042	-	-	196,340	196,340	-	-			
2020	WECC		Bonneville Power Administration-Hydro	U.S.	10,015	10,015	-	-	3,720	3,720	-	-	6,295	6,295	-	-			
2020	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	1,043	1,043	-	-	387	387	-	-	655	655	-	-			
2020	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	1	1	-	-	0	0	-	-	1	1	-	-			
2020	WECC		Bureau of Reclamation (Wellfield)	U.S.	249	249	-	-	93	93	-	-	157	157	-	-			
2020	WECC		Burlington	U.S.	1,520	1,520	-	-	565	565	-	-	956	956	-	-			
2020	WECC		Caesars Entertainment LLC/North	U.S.	2,295	2,295	-	-	853	853	-	-	1,443	1,443	-	-			
2020	WECC		Caesars Entertainment LLC/South	U.S.	18,965	18,965	-	-	7,045	7,045	-	-	11,920	11,920	-	-			
2020	WECC		California Independent System Operator	U.S.	10,426,221	10,426,221	-	-	3,873,067	3,873,067	-	-	6,553,154	6,553,154	-	-			
2020	WECC		Calpine Energy Solutions, LLC.	U.S.	69,296	69,296	-	-	25,742	25,742	-	-	43,555	43,555	-	-			
2020	WECC		Central Arizona Water Conservation District - WALC	U.S.	93,723	93,723	-	-	34,816	34,816	-	-	58,908	58,908	-	-			
2020	WECC		Circus Circus Las Vegas	U.S.	2,305	2,305	-	-	856	856	-	-	1,449	1,449	-	-			
2020	WECC		City of Aztec Electric Dept. - WACM	U.S.	1,698	1,698	-	-	631	631	-	-	1,067	1,067	-	-			
2020	WECC		City of Fallon	U.S.	4,454	4,454	-	-	1,654	1,654	-	-	2,799	2,799	-	-			
2020	WECC		City of Farmington	U.S.	44,522	44,522	-	-	16,539	16,539	-	-	27,983	27,983	-	-			
2020	WECC		City of Gallup	U.S.	7,846	7,846	-	-	2,915	2,915	-	-	4,932	4,932	-	-			
2020	WECC		City of Henderson	U.S.	2,151	2,151	-	-	799	799	-	-	1,352	1,352	-	-			
2020	WECC		City of Las Vegas	U.S.	2,061	2,061	-	-	766	766	-	-	1,296	1,296	-	-			

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	WECC		City of Mesa	U.S.	12,680	12,680	-	-	4,710	4,710	-	-	7,970	7,970	-	-
2020	WECC		City of North Las Vegas	U.S.	1,049	1,049	-	-	390	390	-	-	659	659	-	-
2020	WECC		City of Page	U.S.	3,715	3,715	-	-	1,380	1,380	-	-	2,335	2,335	-	-
2020	WECC		City of Redding	U.S.	36,972	36,972	-	-	13,734	13,734	-	-	23,238	23,238	-	-
2020	WECC		City of Roseville	U.S.	57,588	57,588	-	-	21,392	21,392	-	-	36,196	36,196	-	-
2020	WECC		City of Tacoma DBA Tacoma Power	U.S.	236,049	236,049	-	-	87,686	87,686	-	-	148,363	148,363	-	-
2020	WECC		City of Williams	U.S.	2,328	2,328	-	-	865	865	-	-	1,463	1,463	-	-
2020	WECC		Clark County Water Reclamation District	U.S.	3,655	3,655	-	-	1,358	1,358	-	-	2,298	2,298	-	-
2020	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	463	463	-	-	172	172	-	-	291	291	-	-
2020	WECC		Colorado River Commission of Nevada	U.S.	15,188	15,188	-	-	5,642	5,642	-	-	9,546	9,546	-	-
2020	WECC		Colorado Springs Utilities	U.S.	248,610	248,610	-	-	92,352	92,352	-	-	156,258	156,258	-	-
2020	WECC		Colorado Springs Utilities - WACM	U.S.	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Constellation New Energy	U.S.	22,868	22,868	-	-	8,495	8,495	-	-	14,373	14,373	-	-
2020	WECC		Delta-Montrose Electric Association	U.S.	13,878	13,878	-	-	5,155	5,155	-	-	8,723	8,723	-	-
2020	WECC		Deseret Generation & Transmission Cooperative - WACM	U.S.	4,347	4,347	-	-	1,615	1,615	-	-	2,732	2,732	-	-
2020	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	1,021	1,021	-	-	379	379	-	-	642	642	-	-
2020	WECC		El Paso Electric Company	U.S.	418,501	418,501	-	-	155,462	155,462	-	-	263,039	263,039	-	-
2020	WECC		Electrical District #2	U.S.	9,403	9,403	-	-	3,493	3,493	-	-	5,910	5,910	-	-
2020	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	365	365	-	-	136	136	-	-	229	229	-	-
2020	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	32	32	-	-	12	12	-	-	20	20	-	-
2020	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	2,351	2,351	-	-	873	873	-	-	1,478	1,478	-	-
2020	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	20,860	20,860	-	-	7,749	7,749	-	-	13,111	13,111	-	-
2020	WECC		Francis E. Warren Air Force Base	U.S.	1,173	1,173	-	-	436	436	-	-	737	737	-	-
2020	WECC		Georgia Pacific Gypsum, LLC	U.S.	1,149	1,149	-	-	427	427	-	-	722	722	-	-
2020	WECC		Grand Valley Power	U.S.	12,362	12,362	-	-	4,592	4,592	-	-	7,770	7,770	-	-
2020	WECC		Harquahala Valley Power Districts - APS	U.S.	5,406	5,406	-	-	2,008	2,008	-	-	3,398	3,398	-	-
2020	WECC		Holy Cross Energy	U.S.	10,901	10,901	-	-	4,049	4,049	-	-	6,851	6,851	-	-
2020	WECC		Idaho Power Company	U.S.	771,029	771,029	-	-	286,417	286,417	-	-	484,612	484,612	-	-
2020	WECC		Imperial Irrigation District	U.S.	184,630	184,630	-	-	68,585	68,585	-	-	116,045	116,045	-	-
2020	WECC		Intermountain Rural Electric Association	U.S.	118,745	118,745	-	-	44,111	44,111	-	-	74,634	74,634	-	-
2020	WECC		Jicarilla Apache Nation Power Authority	U.S.	1,225	1,225	-	-	455	455	-	-	770	770	-	-
2020	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	13,254	13,254	-	-	4,923	4,923	-	-	8,330	8,330	-	-
2020	WECC		Kit Carson Electric Inc	U.S.	13,514	13,514	-	-	5,020	5,020	-	-	8,494	8,494	-	-
2020	WECC		Las Vegas Valley Water District	U.S.	5,537	5,537	-	-	2,057	2,057	-	-	3,480	3,480	-	-
2020	WECC		Los Angeles Department of Water and Power	U.S.	1,265,506	1,265,506	-	-	470,102	470,102	-	-	795,404	795,404	-	-
2020	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	2,781	2,781	-	-	1,033	1,033	-	-	1,748	1,748	-	-
2020	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	7,683	7,683	-	-	2,854	2,854	-	-	4,829	4,829	-	-
2020	WECC		Merced Irrigation District	U.S.	25,528	25,528	-	-	9,483	9,483	-	-	16,045	16,045	-	-
2020	WECC		MGM Resorts Design and Development	U.S.	31,707	31,707	-	-	11,778	11,778	-	-	19,929	19,929	-	-
2020	WECC		Modesto Irrigation District	U.S.	129,558	129,558	-	-	48,127	48,127	-	-	81,431	81,431	-	-
2020	WECC		Montana-Dakota Utilities Co.	U.S.	1,088	1,088	-	-	404	404	-	-	684	684	-	-
2020	WECC		Mt. Wheeler Power	U.S.	29,545	29,545	-	-	10,975	10,975	-	-	18,570	18,570	-	-
2020	WECC		Municipal Energy Agency of Nebraska - PSCO	U.S.	8,915	8,915	-	-	3,312	3,312	-	-	5,603	5,603	-	-
2020	WECC		Municipal Energy Agency of Nebraska - WACM	U.S.	31,127	31,127	-	-	11,563	11,563	-	-	19,564	19,564	-	-
2020	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Navajo Tribal Utility Authority - APS	U.S.	2,757	2,757	-	-	1,024	1,024	-	-	1,733	1,733	-	-
2020	WECC		Navajo Tribal Utility Authority - PNM	U.S.	9,677	9,677	-	-	3,595	3,595	-	-	6,082	6,082	-	-
2020	WECC		Navajo Tribal Utility Authority - WACM	U.S.	11,560	11,560	-	-	4,294	4,294	-	-	7,266	7,266	-	-
2020	WECC		Nebraska Public Power Marketing	U.S.	178	178	-	-	66	66	-	-	112	112	-	-
2020	WECC		Needles Public Utilities Authority	U.S.	2,342	2,342	-	-	870	870	-	-	1,472	1,472	-	-
2020	WECC		Nevada Power Company dba NV Energy	U.S.	1,510,304	1,510,304	-	-	561,038	561,038	-	-	949,266	949,266	-	-
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	464,398	464,398	-	-	172,512	172,512	-	-	291,886	291,886	-	-
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - WAUW	U.S.	13,528	13,528	-	-	5,025	5,025	-	-	8,503	8,503	-	-
2020	WECC		Okanogan PUD	U.S.	30,558	30,558	-	-	11,352	11,352	-	-	19,207	19,207	-	-
2020	WECC		Overton Power District No. 5	U.S.	19,575	19,575	-	-	7,272	7,272	-	-	12,304	12,304	-	-
2020	WECC		PacifiCorp	U.S.	2,406,213	2,406,213	-	-	893,845	893,845	-	-	1,512,368	1,512,368	-	-
2020	WECC		PacifiCorp - IPC	U.S.	95	95	-	-	35	35	-	-	60	60	-	-
2020	WECC		PacifiCorp - Portland General	U.S.	189	189	-	-	70	70	-	-	119	119	-	-
2020	WECC		PacifiCorp - WACM	U.S.	5,638	5,638	-	-	2,094	2,094	-	-	3,543	3,543	-	-
2020	WECC		PacifiCorp West	U.S.	1,002,682	1,002,682	-	-	372,470	372,470	-	-	630,212	630,212	-	-
2020	WECC		Pend Oreille County PUD No. 1	U.S.	25,514	25,514	-	-	9,478	9,478	-	-	16,036	16,036	-	-
2020	WECC		Peppermill Hotel Casino	U.S.	2,220	2,220	-	-	825	825	-	-	1,395	1,395	-	-
2020	WECC		Platte River Power Authority	U.S.	154,183	154,183	-	-	57,275	57,275	-	-	96,908	96,908	-	-
2020	WECC		Portland General Electric Company	U.S.	870,966	870,966	-	-	323,541	323,541	-	-	547,425	547,425	-	-
2020	WECC		Public Service Company of Colorado (Xcel)	U.S.	1,530,117	1,530,117	-	-	568,398	568,398	-	-	961,719	961,719	-	-
2020	WECC		Public Service Company of Colorado (Xcel) - WACM	U.S.	3,443	3,443	-	-	1,279	1,279	-	-	2,164	2,164	-	-
2020	WECC		Public Service Company of New Mexico	U.S.	459,293	459,293	-	-	170,615	170,615	-	-	288,678	288,678	-	-
2020	WECC		Public Utility District No. 1 of Chelan County	U.S.	85,796	85,796	-	-	31,871	31,871	-	-	53,925	53,925	-	-
2020	WECC		PUD No. 1 of Douglas County	U.S.	52,483	52,483	-	-	19,496	19,496	-	-	32,987	32,987	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, Regional Entity, & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2020	WECC		PUD No. 2 of Grant County	U.S.	243,621	243,621	-	-	90,499	90,499	-	-	153,122	153,122	-	-
2020	WECC		PUD No. 2 of Grant County - Avista	U.S.	4,468	4,468	-	-	1,660	1,660	-	-	2,808	2,808	-	-
2020	WECC		Puget Sound Energy, Inc.	U.S.	1,137,998	1,137,998	-	-	422,737	422,737	-	-	715,262	715,262	-	-
2020	WECC		Raton Public Service	U.S.	2,321	2,321	-	-	862	862	-	-	1,459	1,459	-	-
2020	WECC		Reno City Center	U.S.	143	143	-	-	53	53	-	-	90	90	-	-
2020	WECC		Roosevelt Irrigation District - APS	U.S.	2,040	2,040	-	-	758	758	-	-	1,282	1,282	-	-
2020	WECC		Sacramento Municipal Utility District	U.S.	540,367	540,367	-	-	200,732	200,732	-	-	339,635	339,635	-	-
2020	WECC		Sahara Las Vegas	U.S.	1,161	1,161	-	-	431	431	-	-	730	730	-	-
2020	WECC		Salt River Project	U.S.	1,554,061	1,554,061	-	-	577,293	577,293	-	-	976,768	976,768	-	-
2020	WECC		Seattle City Light	U.S.	444,027	444,027	-	-	164,944	164,944	-	-	279,083	279,083	-	-
2020	WECC		Shell Energy North America	U.S.	8,591	8,591	-	-	3,191	3,191	-	-	5,399	5,399	-	-
2020	WECC		Silver State Energy Association	U.S.	30,424	30,424	-	-	11,302	11,302	-	-	19,122	19,122	-	-
2020	WECC		Southern Nevada Water Authority	U.S.	6,472	6,472	-	-	2,404	2,404	-	-	4,068	4,068	-	-
2020	WECC		Switch-North	U.S.	6,323	6,323	-	-	2,349	2,349	-	-	3,974	3,974	-	-
2020	WECC		Switch-South	U.S.	31,083	31,083	-	-	11,547	11,547	-	-	19,537	19,537	-	-
2020	WECC		The Incorporated County of Los Alamos	U.S.	27,511	27,511	-	-	10,219	10,219	-	-	17,291	17,291	-	-
2020	WECC		Tohono O'Odham Utility Authority	U.S.	3,177	3,177	-	-	1,180	1,180	-	-	1,997	1,997	-	-
2020	WECC		Tonopah Irrigation District - APS	U.S.	1,807	1,807	-	-	671	671	-	-	1,135	1,135	-	-
2020	WECC		Town of Center	U.S.	228	228	-	-	85	85	-	-	143	143	-	-
2020	WECC		Town of Fredonia - WACM	U.S.	532	532	-	-	197	197	-	-	334	334	-	-
2020	WECC		Town of Wickenburg	U.S.	1,994	1,994	-	-	741	741	-	-	1,253	1,253	-	-
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - PSCO	U.S.	142,077	142,077	-	-	52,778	52,778	-	-	89,299	89,299	-	-
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - WACM	U.S.	393,652	393,652	-	-	146,231	146,231	-	-	247,420	247,420	-	-
2020	WECC		Tri-State Generation & Transmission Association, Inc. - PNM	U.S.	124,016	124,016	-	-	46,069	46,069	-	-	77,947	77,947	-	-
2020	WECC		Truckee Donner Public Utility District	U.S.	8,019	8,019	-	-	2,979	2,979	-	-	5,040	5,040	-	-
2020	WECC		Tucson Electric Power Company	U.S.	728,303	728,303	-	-	270,546	270,546	-	-	457,758	457,758	-	-
2020	WECC		Turlock Irrigation District	U.S.	111,110	111,110	-	-	41,274	41,274	-	-	69,835	69,835	-	-
2020	WECC		U.S. Army Yuma Proving Ground	U.S.	952	952	-	-	354	354	-	-	598	598	-	-
2020	WECC		US Dept of Energy - Kirtland AFB	U.S.	20,503	20,503	-	-	7,616	7,616	-	-	12,887	12,887	-	-
2020	WECC		Western Area Power - Loveland, CO - PSCO	U.S.	8,397	8,397	-	-	3,119	3,119	-	-	5,278	5,278	-	-
2020	WECC		Western Area Power - Loveland, CO - WACM	U.S.	63,002	63,002	-	-	23,404	23,404	-	-	39,599	39,599	-	-
2020	WECC		Western Area Power Administration - CRSP	U.S.	70,427	70,427	-	-	26,162	26,162	-	-	44,265	44,265	-	-
2020	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	79,512	79,512	-	-	29,536	29,536	-	-	49,975	49,975	-	-
2020	WECC		Western Area Power Administration-Desert Southwest Region - WALC	U.S.	103,934	103,934	-	-	38,609	38,609	-	-	65,325	65,325	-	-
2020	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	17,551	17,551	-	-	6,520	6,520	-	-	11,032	11,032	-	-
2020	WECC		Western Area Power Administration-Upper Great Plains Region - NorthWestern	U.S.	404	404	-	-	150	150	-	-	254	254	-	-
2020	WECC		Wynn Las Vegas	U.S.	7,496	7,496	-	-	2,785	2,785	-	-	4,711	4,711	-	-
2020	WECC		Wyoming Municipal Power Agency	U.S.	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Yampa Valley Electric Association	U.S.	25,577	25,577	-	-	9,501	9,501	-	-	16,076	16,076	-	-
TOTAL WECC					40,729,454	34,674,643	5,238,053	816,759	15,030,754	12,880,718	1,886,845	263,191	25,698,700	21,793,924	3,351,208	553,568
TOTAL ERO					201,080,951	181,297,158	18,967,035	816,759	78,387,280	70,691,258	7,432,831	263,191	122,693,671	110,605,900	11,534,203	553,568

Summary by Regional Entity

2020	MRO				26,420,677	23,635,659	2,785,018	-	8,588,263	7,698,403	889,860	-	17,832,414	15,937,255	1,895,159	-
2020	NPCC				25,354,980	14,411,017	10,943,963	-	9,442,667	4,786,540	4,656,127	-	15,912,313	9,624,477	6,287,836	-
2020	RF				38,801,401	38,801,401	-	-	15,353,456	15,353,456	-	-	23,447,945	23,447,945	-	-
2020	SERC				47,926,483	47,926,483	-	-	23,127,549	23,127,549	-	-	24,798,934	24,798,934	-	-
2020	Texas RE				21,847,955	21,847,955	-	-	6,844,590	6,844,590	-	-	15,003,365	15,003,365	-	-
2020	WECC				40,729,454	34,674,643	5,238,053	816,759	15,030,754	12,880,718	1,886,845	263,191	25,698,700	21,793,924	3,351,208	553,568
Total					201,080,951	181,297,158	18,967,035	816,759	78,387,280	70,691,258	7,432,831	263,191	122,693,671	110,605,900	11,534,203	553,568

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-C

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits					
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico		
2020	MRO	C-1217	Manitoba Hydro	Canada	458,805	-	458,805	-	448,960	-	448,960	-	-	-	-	-	9,845	-	9,845	-
2020	MRO	C-1235	SaskPower	Canada	431,054	-	431,054	-	421,805	-	421,805	-	-	-	-	-	9,249	-	9,249	-
2020	MRO	C-1707	AEP-VEMCO	U.S.	11,998	11,998	-	-	11,741	11,741	-	-	-	-	-	-	257	257	-	-
2020	MRO	C-1195	Alliant Energy (ALTE- WPL & ALTW IPL)	U.S.	495,000	495,000	-	-	484,378	484,378	-	-	-	-	-	-	10,622	10,622	-	-
2020	MRO	C-1246	American Electric Power Service Corporation	U.S.	634,937	634,937	-	-	621,313	621,313	-	-	-	-	-	-	13,624	13,624	-	-
2020	MRO	C-1196	Ames Municipal Electric System	U.S.	13,290	13,290	-	-	13,005	13,005	-	-	-	-	-	-	285	285	-	-
2020	MRO	C-1986	Arkansas Electric Cooperative Corporation (AECC)	U.S.	76,473	76,473	-	-	74,832	74,832	-	-	-	-	-	-	1,641	1,641	-	-
2020	MRO	C-1604	Atlantic Municipal Utilities (AMU)	U.S.	2,717	2,717	-	-	2,659	2,659	-	-	-	-	-	-	58	58	-	-
2020	MRO	C-1199	Basin Electric Power Cooperative (BEP)	U.S.	397,890	397,890	-	-	389,352	389,352	-	-	-	-	-	-	8,538	8,538	-	-
2020	MRO	C-1247	Board of Public Utilities (Kansas City, KS) (BPU)	U.S.	40,743	40,743	-	-	39,869	39,869	-	-	-	-	-	-	874	874	-	-
2020	MRO	C-1620	Board of Public Utilities City of McPherson, KS (MCPHER)	U.S.	18,625	18,625	-	-	18,225	18,225	-	-	-	-	-	-	400	400	-	-
2020	MRO	C-1647	Carthage Water and Light	U.S.	5,307	5,307	-	-	5,193	5,193	-	-	-	-	-	-	114	114	-	-
2020	MRO	C-1200	Cedar Falls Utilities (CFU)	U.S.	9,053	9,053	-	-	8,859	8,859	-	-	-	-	-	-	194	194	-	-
2020	MRO	C-1201	Central Iowa Power Cooperative (CIPCO)	U.S.	51,933	51,933	-	-	50,818	50,818	-	-	-	-	-	-	1,114	1,114	-	-
2020	MRO	C-1477	Central Minnesota Municipal Power Agency (CMMPA)	U.S.	7,137	7,137	-	-	6,984	6,984	-	-	-	-	-	-	153	153	-	-
2020	MRO	C-1469	Central Valley Electric Cooperative (CVEC)	U.S.	14,341	14,341	-	-	14,033	14,033	-	-	-	-	-	-	308	308	-	-
2020	MRO	C-2056	City of Beatrice	U.S.	1,800	1,800	-	-	1,762	1,762	-	-	-	-	-	-	39	39	-	-
2020	MRO	C-1556	City of Bentonville (BENVILL)	U.S.	12,346	12,346	-	-	12,081	12,081	-	-	-	-	-	-	265	265	-	-
2020	MRO	C-1713	City of Bloomer (Bloomer Electric & Water Co.)	U.S.	1,030	1,030	-	-	1,008	1,008	-	-	-	-	-	-	22	22	-	-
2020	MRO	C-1703	City of Chanute (CHANUTEKS)	U.S.	9,215	9,215	-	-	9,018	9,018	-	-	-	-	-	-	198	198	-	-
2020	MRO	C-1203	City of Escanaba (EME)	U.S.	2,302	2,302	-	-	2,253	2,253	-	-	-	-	-	-	49	49	-	-
2020	MRO	C-1719	City of Kasota	U.S.	67	67	-	-	66	66	-	-	-	-	-	-	1	1	-	-
2020	MRO	C-2032	City of Lubbock (Lubbock Power and Light)	U.S.	48,272	48,272	-	-	47,236	47,236	-	-	-	-	-	-	1,036	1,036	-	-
2020	MRO	C-1709	City of Nixa	U.S.	3,068	3,068	-	-	3,002	3,002	-	-	-	-	-	-	66	66	-	-
2020	MRO	C-2057	City of South Sioux City, NE	U.S.	3,092	3,092	-	-	3,026	3,026	-	-	-	-	-	-	66	66	-	-
2020	MRO	C-1722	City of Spooner	U.S.	549	549	-	-	537	537	-	-	-	-	-	-	12	12	-	-
2020	MRO	C-2052	City of Superior NE	U.S.	464	464	-	-	454	454	-	-	-	-	-	-	10	10	-	-
2020	MRO	C-2053	City of Wakefield, NE	U.S.	851	851	-	-	832	832	-	-	-	-	-	-	18	18	-	-
2020	MRO	C-2054	City of Wayne, NE	U.S.	1,213	1,213	-	-	1,187	1,187	-	-	-	-	-	-	26	26	-	-
2020	MRO	C-1436	City Utilities of Springfield, MO (SPRM)	U.S.	55,402	55,402	-	-	54,213	54,213	-	-	-	-	-	-	1,189	1,189	-	-
2020	MRO	C-1204	Corn Belt Power Cooperative (CBPC)	U.S.	34,855	34,855	-	-	34,107	34,107	-	-	-	-	-	-	748	748	-	-
2020	MRO	C-1710	Dahlberg Electric Company	U.S.	2,095	2,095	-	-	2,050	2,050	-	-	-	-	-	-	45	45	-	-
2020	MRO	C-1207	Dairyland Power Cooperative (DPC)	U.S.	102,540	102,540	-	-	100,339	100,339	-	-	-	-	-	-	2,200	2,200	-	-
2020	MRO	C-1437	East Texas Electric Cooperative, Inc. (ETEC)	U.S.	19,888	19,888	-	-	19,461	19,461	-	-	-	-	-	-	427	427	-	-
2020	MRO	C-1716	Eldridge Electric and Water Utilities	U.S.	722	722	-	-	706	706	-	-	-	-	-	-	15	15	-	-
2020	MRO	C-1250	Empire District Electric Co.	U.S.	89,670	89,670	-	-	87,745	87,745	-	-	-	-	-	-	1,924	1,924	-	-
2020	MRO	C-1205	Falls City Water & Light Department	U.S.	729	729	-	-	713	713	-	-	-	-	-	-	16	16	-	-
2020	MRO	C-1470	Farmers Electric Cooperative, Inc. of New Mexico (FARMCOOPNM)	U.S.	6,407	6,407	-	-	6,269	6,269	-	-	-	-	-	-	137	137	-	-
2020	MRO	C-1206	Fremont Department of Utilities (City of)	U.S.	8,816	8,816	-	-	8,627	8,627	-	-	-	-	-	-	189	189	-	-
2020	MRO	C-1208	Geneseo Municipal Utilities	U.S.	1,163	1,163	-	-	1,138	1,138	-	-	-	-	-	-	25	25	-	-
2020	MRO	C-1438	Golden Spread Electric Cooperative, Inc (GSEC)	U.S.	111,256	111,256	-	-	108,869	108,869	-	-	-	-	-	-	2,387	2,387	-	-
2020	MRO	C-1209	Grand Island Utilities Department	U.S.	13,163	13,163	-	-	12,880	12,880	-	-	-	-	-	-	282	282	-	-
2020	MRO	C-1251	Grand River Dam Authority (GRDA)	U.S.	107,977	107,977	-	-	105,660	105,660	-	-	-	-	-	-	2,317	2,317	-	-
2020	MRO	C-1717	Great Lakes Utilities	U.S.	26,083	26,083	-	-	25,523	25,523	-	-	-	-	-	-	560	560	-	-
2020	MRO	C-1210	Great River Energy (GRE)	U.S.	233,245	233,245	-	-	228,240	228,240	-	-	-	-	-	-	5,005	5,005	-	-
2020	MRO	C-1606	Harlan Municipal Utilities	U.S.	282	282	-	-	276	276	-	-	-	-	-	-	6	6	-	-
2020	MRO	C-1211	Hastings Utilities (HAST)	U.S.	7,774	7,774	-	-	7,607	7,607	-	-	-	-	-	-	167	167	-	-
2020	MRO	C-1212	Heartland Consumers Power District (HCPD)	U.S.	8,578	8,578	-	-	8,394	8,394	-	-	-	-	-	-	184	184	-	-
2020	MRO	C-1213	Hutchinson Utilities Commission (HUCH)	U.S.	5,044	5,044	-	-	4,936	4,936	-	-	-	-	-	-	108	108	-	-
2020	MRO	C-1248	Independence Power & Light (Independence, MO) (INDN)	U.S.	18,221	18,221	-	-	17,830	17,830	-	-	-	-	-	-	391	391	-	-
2020	MRO	C-1252	Evergy Metro-Kansas City Power & Light (f.k.a. Kansas City Power & Light)	U.S.	272,094	272,094	-	-	266,255	266,255	-	-	-	-	-	-	5,839	5,839	-	-
2020	MRO	C-1439	Kansas Electric Power Cooperative (KEPC)	U.S.	39,894	39,894	-	-	39,038	39,038	-	-	-	-	-	-	856	856	-	-
2020	MRO	C-1440	Kansas Municipal Energy Agency (KMEA)	U.S.	28,333	28,333	-	-	27,725	27,725	-	-	-	-	-	-	608	608	-	-
2020	MRO	C-1637	Kansas Power Pool (KPP)	U.S.	15,333	15,333	-	-	15,004	15,004	-	-	-	-	-	-	329	329	-	-
2020	MRO	C-1598	Evergy MO West Greater MO Operations (f.k.a. KCPL Greater Missouri Operations)	U.S.	155,645	155,645	-	-	152,306	152,306	-	-	-	-	-	-	3,340	3,340	-	-
2020	MRO	C-2038	Kennett Board of Public Works	U.S.	2,139	2,139	-	-	2,093	2,093	-	-	-	-	-	-	46	46	-	-
2020	MRO	C-1472	Lea County Electric Cooperative (LCEC)	U.S.	21,108	21,108	-	-	20,655	20,655	-	-	-	-	-	-	453	453	-	-
2020	MRO	C-1215	Lincoln Electric System (LES)	U.S.	56,104	56,104	-	-	54,900	54,900	-	-	-	-	-	-	1,204	1,204	-	-
2020	MRO	C-1216	Madison, Gas and Electric (MGE)	U.S.	58,425	58,425	-	-	57,172	57,172	-	-	-	-	-	-	1,254	1,254	-	-
2020	MRO	C-2039	Malden Board of Public Works	U.S.	889	889	-	-	870	870	-	-	-	-	-	-	19	19	-	-
2020	MRO	C-1220	MidAmerican Energy Company (MEC)	U.S.	498,465	498,465	-	-	487,769	487,769	-	-	-	-	-	-	10,696	10,696	-	-
2020	MRO	C-1441	Midwest Energy, Inc (MIDW)	U.S.	30,642	30,642	-	-	29,985	29,985	-	-	-	-	-	-	658	658	-	-
2020	MRO	C-1224	Minnesota Municipal Power Agency (MMPA) Avant Energy Inc is Agent	U.S.	34,612	34,612	-	-	33,869	33,869	-	-	-	-	-	-	743	743	-	-
2020	MRO	C-1221	Minnesota Power (MP)	U.S.	198,427	198,427	-	-	194,169	194,169	-	-	-	-	-	-	4,258	4,258	-	-
2020	MRO	C-1222	Minnkota Power Cooperative, Inc. (MPC)	U.S.	69,422	69,422	-	-	67,932	67,932	-	-	-	-	-	-	1,490	1,490	-	-
2020	MRO	C-1987	Missouri Joint Municipal Electric Utility	U.S.	7,682	7,682	-	-	7,517	7,517	-	-	-	-	-	-	165	165	-	-
2020	MRO	C-1223	Missouri River Energy Services	U.S.	47,624	47,624	-	-	46,603	46,603	-	-	-	-	-	-	1,022	1,022	-	-
2020	MRO	C-1226	Montana-Dakota Utilities Co. (MDU)	U.S.	56,797	56,797	-	-	55,578	55,578	-	-	-	-	-	-	1,219	1,219	-	-
2020	MRO	C-1607	Montezuma Municipal Light & Power	U.S.	399	399	-	-	390	390	-	-	-	-	-	-	9	9	-	-
2020	MRO	C-2051	Moose Lake Water & Light Commission	U.S.	620	620	-	-	607	607	-	-	-	-	-	-	13	13	-	-
2020	MRO	C-1227	Municipal Energy Agency of Nebraska (MEAN)	U.S.	17,579	17,579	-	-	17,202	17,202	-	-	-	-	-	-	377	377	-	-
2020	MRO	C-1228	Muscataine Power and Water (MPW)	U.S.	15,777	15,777	-	-	15,438	15,438	-	-	-	-	-	-	339	339	-	-
2020	MRO	C-1229	Nebraska City Utilities	U.S.	2,156	2,156	-	-	2,109	2,109	-	-	-	-	-	-	46	46	-	-
2020	MRO	C-1230	Nebraska Public Power District (NPPD)	U.S.	232,463	232,463	-	-	227,475	227,475	-	-	-	-	-	-	4,988	4,988	-	-
2020	MRO	C-1711	North Central Power Company	U.S.	706	706	-	-	691	691	-	-	-	-	-	-	15	15	-	-
2020	MRO	C-2055	Northeast Power	U.S.	6,967	6,967	-	-	6,818	6,818	-	-	-	-	-	-	150	150	-	-
2020																				

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico
2020	MRO	C-1231	NorthWestern Energy (NWE)	U.S.	30,028	30,028	-	-	29,384	29,384	-	-	-	-	644	644	-	-
2020	MRO	C-1712	NorthWestern Wisconsin Electric Company	U.S.	3,362	3,362	-	-	3,290	3,290	-	-	-	-	72	72	-	-
2020	MRO	C-1255	Oklahoma Gas and Electric Co. (OKGE)	U.S.	545,323	545,323	-	-	533,622	533,622	-	-	-	-	11,701	11,701	-	-
2020	MRO	C-1444	Oklahoma Municipal Power Authority (OMPA)	U.S.	50,192	50,192	-	-	49,115	49,115	-	-	-	-	1,077	1,077	-	-
2020	MRO	C-1232	Omaha Public Power District (OPPD)	U.S.	209,292	209,292	-	-	204,801	204,801	-	-	-	-	4,491	4,491	-	-
2020	MRO	C-1233	Otter Tail Power Company (OTP)	U.S.	87,430	87,430	-	-	85,554	85,554	-	-	-	-	1,876	1,876	-	-
2020	MRO	C-1651	Paragould Light, Water & Cable (PARAGOULD)	U.S.	10,280	10,280	-	-	10,060	10,060	-	-	-	-	221	221	-	-
2020	MRO	C-1725	Peoples Electric Cooperative (PEC)	U.S.	13,427	13,427	-	-	13,139	13,139	-	-	-	-	288	288	-	-
2020	MRO	C-2040	Piggott Municipal Light, Water & Sewer	U.S.	619	619	-	-	606	606	-	-	-	-	13	13	-	-
2020	MRO	C-1720	Resale Power Group of Iowa	U.S.	9,458	9,458	-	-	9,255	9,255	-	-	-	-	203	203	-	-
2020	MRO	C-1721	Rice Lake Utilities	U.S.	2,795	2,795	-	-	2,735	2,735	-	-	-	-	60	60	-	-
2020	MRO	C-1234	Rochester Public Utilities (RPU)	U.S.	46	46	-	-	45	45	-	-	-	-	1	1	-	-
2020	MRO	C-1473	Roosevelt County Electric Cooperative	U.S.	3,338	3,338	-	-	3,266	3,266	-	-	-	-	72	72	-	-
2020	MRO	C-1236	Southern Minnesota Municipal Power Agency (SMMPA)	U.S.	48,953	48,953	-	-	47,903	47,903	-	-	-	-	1,050	1,050	-	-
2020	MRO	C-1257	Southwestern Public Service Co. Xcel Energy (SPS)	U.S.	405,703	405,703	-	-	396,997	396,997	-	-	-	-	8,705	8,705	-	-
2020	MRO	C-1256	Sunflower Electric Cooperative (SECI)	U.S.	83,753	83,753	-	-	81,956	81,956	-	-	-	-	1,797	1,797	-	-
2020	MRO	C-1475	Tri County Electric Cooperative, Inc. of Oklahoma (TRICEC)	U.S.	3,442	3,442	-	-	3,369	3,369	-	-	-	-	74	74	-	-
2020	MRO	C-1665	Upper Peninsula Power Co (UPPC)	U.S.	14,114	14,114	-	-	13,811	13,811	-	-	-	-	303	303	-	-
2020	MRO	C-1714	Village of Caddott	U.S.	223	223	-	-	218	218	-	-	-	-	5	5	-	-
2020	MRO	C-1260	Eversource Kansas Central-Westart Energy (f.k.a. Westar Energy)	U.S.	367,447	367,447	-	-	359,562	359,562	-	-	-	-	7,885	7,885	-	-
2020	MRO	C-1239	Western Area Power Administration Rocky Mountain Region (LM) (WAPA-RMR)	U.S.	803	803	-	-	786	786	-	-	-	-	17	17	-	-
2020	MRO	C-1240	Western Area Power Administration Upper Great Plains (UM) (WAPA)	U.S.	164,431	164,431	-	-	160,903	160,903	-	-	-	-	3,528	3,528	-	-
2020	MRO	C-1259	Western Farmers Electric Cooperative (WFEC)	U.S.	159,675	159,675	-	-	156,249	156,249	-	-	-	-	3,426	3,426	-	-
2020	MRO	C-1501	West Texas Municipal Power Agency (WTMPA)	U.S.	2,306	2,306	-	-	2,257	2,257	-	-	-	-	49	49	-	-
2020	MRO	C-1242	Wisconsin Public Power, Inc. (East and West regions) (WPPI)	U.S.	91,134	91,134	-	-	89,178	89,178	-	-	-	-	1,956	1,956	-	-
2020	MRO	C-1983	Wolverine Power Marketing Cooperative	U.S.	804	804	-	-	787	787	-	-	-	-	17	17	-	-
2020	MRO	C-1244	Xcel Energy Company Northern States Power (NSP)	U.S.	744,351	744,351	-	-	728,379	728,379	-	-	-	-	15,972	15,972	-	-
TOTAL MRO					8,588,263	7,698,403	889,860	-	8,403,978	7,533,213	870,765	-	-	-	184,285	165,191	19,094	-
2020	NPCC	C-1336	New England	U.S.	2,094,659	2,094,659	-	-	2,049,712	2,049,712	-	-	-	-	44,947	44,947	-	-
2020	NPCC	C-1339	New York	U.S.	2,691,881	2,691,881	-	-	2,634,119	2,634,119	-	-	-	-	57,762	57,762	-	-
2020	NPCC	C-1337	Ontario	Canada	1,728,238	-	1,728,238	-	2,318,915	-	2,318,915	-	-	-	(590,677)	-	(590,677)	-
2020	NPCC	C-1341	Hydro Quebec	Canada	2,550,946	-	2,550,946	-	3,184,153	-	3,184,153	-	-	-	(633,207)	-	(633,207)	-
2020	NPCC	C-1572	Regie	Canada	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC	C-1705	New Brunswick	Canada	182,111	-	182,111	-	244,142	-	244,142	-	-	-	(62,031)	-	(62,031)	-
2020	NPCC	C-1340	Nova Scotia	Canada	194,832	-	194,832	-	190,652	-	190,652	-	-	-	4,181	-	4,181	-
TOTAL NPCC					9,442,667	4,786,540	4,656,127	-	10,621,693	4,683,832	5,937,861	-	-	-	(1,179,026)	102,709	(1,281,734)	-
2020	RF	C-1102	Cannelton Utilities	U.S.	224	224	-	-	219	219	-	-	-	-	5	5	-	-
2020	RF	C-1106	City of Crosswell	U.S.	799	799	-	-	782	782	-	-	-	-	17	17	-	-
2020	RF	C-1490	City of Lansing	U.S.	36,806	36,806	-	-	36,016	36,016	-	-	-	-	790	790	-	-
2020	RF	C-1120	Cloverland Electric Cooperative	U.S.	12,682	12,682	-	-	12,410	12,410	-	-	-	-	272	272	-	-
2020	RF	C-1122	CMS ERM Michigan LLC	U.S.	3,164	3,164	-	-	3,096	3,096	-	-	-	-	68	68	-	-
2020	RF	C-1124	Constellation New Energy (MECS-CONS)	U.S.	32,484	32,484	-	-	31,787	31,787	-	-	-	-	697	697	-	-
2020	RF	C-1123	Constellation New Energy (MECS-DET)	U.S.	32,903	32,903	-	-	32,197	32,197	-	-	-	-	706	706	-	-
2020	RF	C-1126	Consumers Energy Company	U.S.	563,586	563,586	-	-	551,493	551,493	-	-	-	-	12,093	12,093	-	-
2020	RF	C-1128	DTE Electric Company	U.S.	849,162	849,162	-	-	830,941	830,941	-	-	-	-	18,221	18,221	-	-
2020	RF	C-1166	Duke Energy Indiana	U.S.	497,048	497,048	-	-	486,382	486,382	-	-	-	-	10,666	10,666	-	-
2020	RF	C-1135	Ferdinand Municipal Light & Water	U.S.	840	840	-	-	822	822	-	-	-	-	18	18	-	-
2020	RF	C-1646	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-CONS)	U.S.	11,050	11,050	-	-	10,813	10,813	-	-	-	-	237	237	-	-
2020	RF	C-1549	Energy Harbor LLC, FKA FirstEnergy Solutions (MECS-DET)	U.S.	491	491	-	-	481	481	-	-	-	-	11	11	-	-
2020	RF	C-1145	Hoosier Energy	U.S.	132,961	132,961	-	-	130,108	130,108	-	-	-	-	2,853	2,853	-	-
2020	RF	C-1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	52,805	52,805	-	-	51,672	51,672	-	-	-	-	1,133	1,133	-	-
2020	RF	C-1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	6,994	6,994	-	-	6,844	6,844	-	-	-	-	150	150	-	-
2020	RF	C-1486	Indiana Municipal Power Agency (SIGE)	U.S.	9,761	9,761	-	-	9,552	9,552	-	-	-	-	209	209	-	-
2020	RF	C-1149	Indianapolis Power & Light Co.	U.S.	236,292	236,292	-	-	231,221	231,221	-	-	-	-	5,070	5,070	-	-
2020	RF	C-2050	Logansport Municipal Utility (LMU)	U.S.	7,142	7,142	-	-	6,989	6,989	-	-	-	-	153	153	-	-
2020	RF	C-1666	Constellation New Energy	U.S.	5,500	5,500	-	-	5,382	5,382	-	-	-	-	118	118	-	-
2020	RF	C-1614	Just Energy (MECS-DET)	U.S.	99	99	-	-	97	97	-	-	-	-	2	2	-	-
2020	RF	C-1154	Michigan Public Power Agency	U.S.	64,888	64,888	-	-	63,496	63,496	-	-	-	-	1,392	1,392	-	-
2020	RF	C-1155	Michigan South Central Power Agency	U.S.	13,111	13,111	-	-	12,830	12,830	-	-	-	-	281	281	-	-
2020	RF	C-1163	Northern Indiana Public Service Co.	U.S.	274,609	274,609	-	-	268,716	268,716	-	-	-	-	5,892	5,892	-	-
2020	RF	C-1164	Ontonagon County Rural Electrification Assoc.	U.S.	526	526	-	-	515	515	-	-	-	-	11	11	-	-
2020	RF	C-1265	PJM Interconnection, LLC	U.S.	11,547,300	11,547,300	-	-	11,299,520	11,299,520	-	-	-	-	247,780	247,780	-	-
2020	RF	C-1172	Calpine Energy Solutions, LLC (MECS-CONS)	U.S.	6,445	6,445	-	-	6,306	6,306	-	-	-	-	138	138	-	-
2020	RF	C-1171	Calpine Energy Solutions, LLC (MECS-DET)	U.S.	10,918	10,918	-	-	10,684	10,684	-	-	-	-	234	234	-	-
2020	RF	C-1176	Direct Energy	U.S.	405	405	-	-	396	396	-	-	-	-	9	9	-	-
2020	RF	C-1174	Direct Energy	U.S.	16,374	16,374	-	-	16,023	16,023	-	-	-	-	351	351	-	-
2020	RF	C-1581	Spartan Renewable Energy	U.S.	2,769	2,769	-	-	2,709	2,709	-	-	-	-	59	59	-	-
2020	RF	C-1985	Spartan Renewable Energy (MI UP)	U.S.	1,093	1,093	-	-	1,070	1,070	-	-	-	-	23	23	-	-
2020	RF	C-1180	Thumb Electric Cooperative	U.S.	3,494	3,494	-	-	3,419	3,419	-	-	-	-	75	75	-	-
2020	RF	C-2027	Upper Michigan Energy Resources	U.S.	31,534	31,534	-	-	30,858	30,858	-	-	-	-	677	677	-	-
2020	RF	C-1181	Vectren Energy, a CenterPoint Energy Company	U.S.	85,404	85,404	-	-	83,572	83,572	-	-	-	-	1,833	1,833	-	-
2020	RF	C-1184	Wabash Valley Power Alliance (DUKE CIN)	U.S.	54,834	54,834	-	-	53,657	53,657	-	-	-	-	1,177	1,177	-	-
2020	RF	C-1488	Wabash Valley Power Alliance (NIPSCO)	U.S.	31,762	31,762	-	-	31,080	31,080	-	-	-	-	682	682	-	-
2020	RF	C-1185	Wisconsin Electric Power Co.	U.S.	445,780	445,780	-	-	436,215	436,215	-	-	-	-	9,565	9,565	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits				
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico	
2020	RF	C-2041	Wisconsin Public Service Co.	U.S.	196,297	196,297	-	-	192,085	192,085	-	-	-	-	-	4,212	4,212	-	-
2020	RF	C-1189	Wolverine Power Marketing Cooperative	U.S.	11,934	11,934	-	-	11,678	11,678	-	-	-	-	-	256	256	-	-
2020	RF	C-1191	Wolverine Power Supply Cooperative	U.S.	51,008	51,008	-	-	49,913	49,913	-	-	-	-	-	1,095	1,095	-	-
2020	RF	C-1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	10,176	10,176	-	-	9,958	9,958	-	-	-	-	-	218	218	-	-
TOTAL RELIABILITYFIRST					15,353,456	15,353,456	-	-	15,024,004	15,024,004	-	-	-	-	-	329,451	329,451	-	-
-					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	SERC	C-1267	Alabama Municipal Electric Authority	U.S.	60,641	60,641	-	-	59,339	59,339	-	-	-	-	-	1,301	1,301	-	-
2020	SERC	C-1268	Alabama Power Company	U.S.	952,443	952,443	-	-	932,005	932,005	-	-	-	-	-	20,437	20,437	-	-
2020	SERC	C-1269	Ameren - Illinois	U.S.	713,046	713,046	-	-	697,746	697,746	-	-	-	-	-	15,300	15,300	-	-
2020	SERC	C-1271	Ameren - Missouri	U.S.	631,460	631,460	-	-	617,910	617,910	-	-	-	-	-	13,550	13,550	-	-
2020	SERC	C-1273	Associated Electric Cooperative Inc.	U.S.	412,137	412,137	-	-	403,293	403,293	-	-	-	-	-	8,844	8,844	-	-
2020	SERC	C-1582	Beauregard Electric Cooperative, Inc.	U.S.	23,507	23,507	-	-	23,002	23,002	-	-	-	-	-	504	504	-	-
2020	SERC	C-1462	Benton Utility District	U.S.	3,948	3,948	-	-	3,863	3,863	-	-	-	-	-	85	85	-	-
2020	SERC	C-1274	Big Rivers Electric Corporation	U.S.	61,669	61,669	-	-	60,346	60,346	-	-	-	-	-	1,323	1,323	-	-
2020	SERC	C-1275	Black Warrior EMC	U.S.	6,256	6,256	-	-	6,121	6,121	-	-	-	-	-	134	134	-	-
2020	SERC	C-1276	Blue Ridge EMC	U.S.	24,537	24,537	-	-	24,010	24,010	-	-	-	-	-	527	527	-	-
2020	SERC	C-1628	Brazos Electric Power Cooperative, Inc.	U.S.	9,610	9,610	-	-	9,404	9,404	-	-	-	-	-	206	206	-	-
2020	SERC	C-1463	Canton, MS	U.S.	2,134	2,134	-	-	2,088	2,088	-	-	-	-	-	46	46	-	-
2020	SERC	C-1277	Central Electric Power Cooperative Inc.	U.S.	319,333	319,333	-	-	312,481	312,481	-	-	-	-	-	6,852	6,852	-	-
2020	SERC	C-1667	Century Aluminum - Hawesville	U.S.	54,254	54,254	-	-	53,090	53,090	-	-	-	-	-	1,164	1,164	-	-
2020	SERC	C-1668	Century Aluminum - Sebree	U.S.	57,879	57,879	-	-	56,637	56,637	-	-	-	-	-	1,242	1,242	-	-
2020	SERC	C-1278	City of Blountstown FL	U.S.	604	604	-	-	591	591	-	-	-	-	-	13	13	-	-
2020	SERC	C-1279	City of Camden SC	U.S.	3,301	3,301	-	-	3,230	3,230	-	-	-	-	-	71	71	-	-
2020	SERC	C-1280	City of Collins MS	U.S.	799	799	-	-	782	782	-	-	-	-	-	17	17	-	-
2020	SERC	C-1281	City of Columbia MO	U.S.	20,557	20,557	-	-	20,116	20,116	-	-	-	-	-	441	441	-	-
2020	SERC	C-1282	City of Conway AR (Conway Corporation)	U.S.	16,553	16,553	-	-	16,198	16,198	-	-	-	-	-	355	355	-	-
2020	SERC	C-1284	City of Evergreen AL	U.S.	981	981	-	-	960	960	-	-	-	-	-	21	21	-	-
2020	SERC	C-1285	City of Hampton GA	U.S.	606	606	-	-	593	593	-	-	-	-	-	13	13	-	-
2020	SERC	C-1286	City of Hartford AL	U.S.	546	546	-	-	534	534	-	-	-	-	-	12	12	-	-
2020	SERC	C-1287	City of Henderson (KY) Municipal Power & Light	U.S.	9,992	9,992	-	-	9,778	9,778	-	-	-	-	-	214	214	-	-
2020	SERC	C-1288	City of North Little Rock AR (DENL)	U.S.	15,848	15,848	-	-	15,507	15,507	-	-	-	-	-	340	340	-	-
2020	SERC	C-1289	City of Orangeburg SC Department of Public Utilities	U.S.	14,517	14,517	-	-	14,205	14,205	-	-	-	-	-	312	312	-	-
2020	SERC	C-1290	City of Robertsdale AL	U.S.	1,554	1,554	-	-	1,521	1,521	-	-	-	-	-	33	33	-	-
2020	SERC	C-1291	City of Ruston LA (DERS)	U.S.	4,632	4,632	-	-	4,532	4,532	-	-	-	-	-	99	99	-	-
2020	SERC	C-1292	Seneca Light & Power	U.S.	2,856	2,856	-	-	2,795	2,795	-	-	-	-	-	61	61	-	-
2020	SERC	C-1115	City of Springfield (CWLP)	U.S.	28,695	28,695	-	-	28,079	28,079	-	-	-	-	-	616	616	-	-
2020	SERC	C-1465	City of Thayer, MO	U.S.	410	410	-	-	402	402	-	-	-	-	-	9	9	-	-
2020	SERC	C-1293	City of Troy AL	U.S.	7,968	7,968	-	-	7,797	7,797	-	-	-	-	-	171	171	-	-
2020	SERC	C-1294	City of West Memphis AR (West Memphis Utilities)	U.S.	6,360	6,360	-	-	6,224	6,224	-	-	-	-	-	136	136	-	-
2020	SERC	C-1583	Claiborne Electric Cooperative, Inc.	U.S.	11,181	11,181	-	-	10,941	10,941	-	-	-	-	-	240	240	-	-
2020	SERC	C-1584	Concordia Electric Cooperative, Inc.	U.S.	3,703	3,703	-	-	3,623	3,623	-	-	-	-	-	79	79	-	-
2020	SERC	C-1726	Cube Hydro Carolinas	U.S.	353	353	-	-	346	346	-	-	-	-	-	8	8	-	-
2020	SERC	C-1283	Dalton Utilities	U.S.	35,461	35,461	-	-	34,700	34,700	-	-	-	-	-	761	761	-	-
2020	SERC	C-1585	Dixie Electric Membership Corporation	U.S.	37,812	37,812	-	-	37,001	37,001	-	-	-	-	-	811	811	-	-
2020	SERC	C-1295	Dominion Virginia Power	U.S.	1,563,811	1,563,811	-	-	1,530,255	1,530,255	-	-	-	-	-	33,556	33,556	-	-
2020	SERC	C-1296	Duke Energy Carolinas, LLC	U.S.	1,631,238	1,631,238	-	-	1,596,235	1,596,235	-	-	-	-	-	35,003	35,003	-	-
2020	SERC	C-1466	Durant, MS	U.S.	400	400	-	-	391	391	-	-	-	-	-	9	9	-	-
2020	SERC	C-1478	LG&E and KU Services Co as agent for LG&E Co and KU Co	U.S.	550,185	550,185	-	-	538,379	538,379	-	-	-	-	-	11,806	11,806	-	-
2020	SERC	C-1297	East Kentucky Power Cooperative	U.S.	240,607	240,607	-	-	235,444	235,444	-	-	-	-	-	5,163	5,163	-	-
2020	SERC	C-1298	East Mississippi Electric Power Association	U.S.	7,158	7,158	-	-	7,005	7,005	-	-	-	-	-	154	154	-	-
2020	SERC	C-1669	Electricities of North Carolina Inc	U.S.	202,617	202,617	-	-	198,269	198,269	-	-	-	-	-	4,348	4,348	-	-
2020	SERC	C-1300	EnergyUnited EMC	U.S.	46,500	46,500	-	-	45,502	45,502	-	-	-	-	-	998	998	-	-
2020	SERC	C-1301	Entergy	U.S.	2,083,147	2,083,147	-	-	2,038,447	2,038,447	-	-	-	-	-	44,700	44,700	-	-
2020	SERC	C-1302	Fayetteville (NC) Public Works Commission	U.S.	35,797	35,797	-	-	35,029	35,029	-	-	-	-	-	768	768	-	-
2020	SERC	C-1303	Florida Public Utilities (FL Panhandle Load)	U.S.	5,337	5,337	-	-	5,223	5,223	-	-	-	-	-	115	115	-	-
2020	SERC	C-1304	French Broad EMC	U.S.	9,742	9,742	-	-	9,533	9,533	-	-	-	-	-	209	209	-	-
2020	SERC	C-1305	Georgia Power Company	U.S.	1,495,426	1,495,426	-	-	1,463,337	1,463,337	-	-	-	-	-	32,089	32,089	-	-
2020	SERC	C-1306	Georgia System Optns Corporation	U.S.	717,296	717,296	-	-	701,904	701,904	-	-	-	-	-	15,392	15,392	-	-
2020	SERC	C-1479	Greenwood (MS) Utilities Commission	U.S.	4,977	4,977	-	-	4,870	4,870	-	-	-	-	-	107	107	-	-
2020	SERC	C-1307	Greenwood (SC) Commissioners of Public Works	U.S.	5,553	5,553	-	-	5,434	5,434	-	-	-	-	-	119	119	-	-
2020	SERC	C-1308	Gulf Power Company	U.S.	209,171	209,171	-	-	204,683	204,683	-	-	-	-	-	4,488	4,488	-	-
2020	SERC	C-1586	Haywood EMC	U.S.	5,984	5,984	-	-	5,856	5,856	-	-	-	-	-	128	128	-	-
2020	SERC	C-1984	Hoosier Energy REC, Inc	U.S.	6,658	6,658	-	-	6,515	6,515	-	-	-	-	-	143	143	-	-
2020	SERC	C-1309	Illinois Municipal Electric Agency	U.S.	30,880	30,880	-	-	30,217	30,217	-	-	-	-	-	663	663	-	-
2020	SERC	C-1480	Itta Bena, MS	U.S.	225	225	-	-	220	220	-	-	-	-	-	5	5	-	-
2020	SERC	C-1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	4,268	4,268	-	-	4,176	4,176	-	-	-	-	-	92	92	-	-
2020	SERC	C-1617	Kentucky Municipal Power	U.S.	11,972	11,972	-	-	11,715	11,715	-	-	-	-	-	257	257	-	-
2020	SERC	C-1481	Municipal Energy Agency of MS-Kosciusko, MS	U.S.	1,196	1,196	-	-	1,170	1,170	-	-	-	-	-	26	26	-	-
2020	SERC	C-1482	Municipal Energy Agency of MS-Leland, MS	U.S.	500	500	-	-	489	489	-	-	-	-	-	11	11	-	-
2020	SERC	C-1313	McCormick Commission of Public Works	U.S.	320	320	-	-	314										

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Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits				
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico	
2020	SERC	C-1618	Osceola (Arkansas) Municipal Light and Power	U.S.	2,383	2,383	-	-	2,332	2,332	-	-	-	-	51	51	-	-	
2020	SERC	C-1320	Owensboro (KY) Municipal Utilities	U.S.	13,900	13,900	-	-	13,602	13,602	-	-	-	-	298	298	-	-	
2020	SERC	C-1321	Piedmont EMC in Duke and Progress Areas	U.S.	8,885	8,885	-	-	8,694	8,694	-	-	-	-	191	191	-	-	
2020	SERC	C-1323	Piedmont Municipal Power Agency (PMPA)	U.S.	41,460	41,460	-	-	40,571	40,571	-	-	-	-	890	890	-	-	
2020	SERC	C-1589	Pointe Coupee Electric Memb. Corp.	U.S.	4,092	4,092	-	-	4,005	4,005	-	-	-	-	88	88	-	-	
2020	SERC	C-1266	PowerSouth Energy	U.S.	162,411	162,411	-	-	158,926	158,926	-	-	-	-	3,485	3,485	-	-	
2020	SERC	C-1330	Prairie Power, Inc.	U.S.	27,942	27,942	-	-	27,342	27,342	-	-	-	-	600	600	-	-	
2020	SERC	C-1706	Duke Energy Progress	U.S.	926,230	926,230	-	-	906,355	906,355	-	-	-	-	19,875	19,875	-	-	
2020	SERC	C-1325	Rutherford EMC	U.S.	24,560	24,560	-	-	24,033	24,033	-	-	-	-	527	527	-	-	
2020	SERC	C-1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	35,758	35,758	-	-	34,991	34,991	-	-	-	-	767	767	-	-	
2020	SERC	C-1326	South Carolina Electric & Gas Company	U.S.	397,593	397,593	-	-	389,062	389,062	-	-	-	-	8,531	8,531	-	-	
2020	SERC	C-1327	South Carolina Public Service Authority	U.S.	159,947	159,947	-	-	156,515	156,515	-	-	-	-	3,432	3,432	-	-	
2020	SERC	C-1590	South Louisiana Electric Cooperative Association	U.S.	9,719	9,719	-	-	9,510	9,510	-	-	-	-	209	209	-	-	
2020	SERC	C-1328	Cooperative Energy (formerly SMEPA)	U.S.	173,069	173,069	-	-	169,356	169,356	-	-	-	-	3,714	3,714	-	-	
2020	SERC	C-1329	Southern Illinois Power Cooperative	U.S.	23,349	23,349	-	-	22,848	22,848	-	-	-	-	501	501	-	-	
2020	SERC	C-1591	Southwest Louisiana Electric Membership Corporation	U.S.	44,739	44,739	-	-	43,779	43,779	-	-	-	-	960	960	-	-	
2020	SERC	C-1619	Southwestern Electric Cooperative, Inc.	U.S.	7,996	7,996	-	-	7,825	7,825	-	-	-	-	172	172	-	-	
2020	SERC	C-1331	Tennessee Valley Authority	U.S.	2,747,603	2,747,603	-	-	2,688,646	2,688,646	-	-	-	-	58,958	58,958	-	-	
2020	SERC	C-1632	East Texas Electric Cooperative (ETEC)	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1332	Tombigbee Electric Cooperative Inc.	U.S.	2,210	2,210	-	-	2,162	2,162	-	-	-	-	47	47	-	-	
2020	SERC	C-1594	Town of Sharpsburg, N.C.	U.S.	332	332	-	-	325	325	-	-	-	-	7	7	-	-	
2020	SERC	C-1595	Town of Stantonsburg, N.C. JRO	U.S.	989	989	-	-	968	968	-	-	-	-	21	21	-	-	
2020	SERC	C-1333	Town of Waynesville NC	U.S.	1,399	1,399	-	-	1,369	1,369	-	-	-	-	30	30	-	-	
2020	SERC	C-1334	Town of Winnsboro SC	U.S.	1,048	1,048	-	-	1,026	1,026	-	-	-	-	22	22	-	-	
2020	SERC	C-1335	Town of Winterville NC	U.S.	952	952	-	-	931	931	-	-	-	-	20	20	-	-	
2020	SERC	C-1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	18,855	18,855	-	-	18,450	18,450	-	-	-	-	405	405	-	-	
2020	SERC	C-1435	Arkansas Electric Cooperative Corporation	U.S.	184,146	184,146	-	-	180,195	180,195	-	-	-	-	3,951	3,951	-	-	
2020	SERC	C-1557	City of Clarksdale, Mississippi	U.S.	2,552	2,552	-	-	2,498	2,498	-	-	-	-	55	55	-	-	
2020	SERC	C-1708	City of Abbeville	U.S.	2,239	2,239	-	-	2,191	2,191	-	-	-	-	48	48	-	-	
2020	SERC	C-1558	Hope Water & Light (HWL)	U.S.	4,975	4,975	-	-	4,868	4,868	-	-	-	-	107	107	-	-	
2020	SERC	C-1559	City of Minden	U.S.	2,346	2,346	-	-	2,296	2,296	-	-	-	-	50	50	-	-	
2020	SERC	C-1249	Cleco Power LLC	U.S.	188,071	188,071	-	-	184,036	184,036	-	-	-	-	4,036	4,036	-	-	
2020	SERC	C-1648	Jonesboro City Water & Light	U.S.	25,587	25,587	-	-	25,038	25,038	-	-	-	-	549	549	-	-	
2020	SERC	C-1471	Lafayette Utilities System	U.S.	35,450	35,450	-	-	34,690	34,690	-	-	-	-	761	761	-	-	
2020	SERC	C-1253	Louisiana Energy & Power Authority (LEPA)	U.S.	16,534	16,534	-	-	16,179	16,179	-	-	-	-	355	355	-	-	
2020	SERC	C-1443	Missouri Joint Municipal Electric Utility Commission	U.S.	46,324	46,324	-	-	45,330	45,330	-	-	-	-	994	994	-	-	
2020	SERC	C-1639	OzMo Ozark Missouri, West Plains MO	U.S.	3,178	3,178	-	-	3,110	3,110	-	-	-	-	68	68	-	-	
2020	SERC	C-1653	Poplar Bluff Municipal Utilities	U.S.	6,316	6,316	-	-	6,181	6,181	-	-	-	-	136	136	-	-	
2020	SERC	C-1636	City of Prescott	U.S.	1,418	1,418	-	-	1,388	1,388	-	-	-	-	30	30	-	-	
2020	SERC	C-1561	Public Service Commission of Yazoo City of Mississippi	U.S.	1,972	1,972	-	-	1,929	1,929	-	-	-	-	42	42	-	-	
2020	SERC	C-1654	Sikeston Board of Municipal Utilities	U.S.	6,635	6,635	-	-	6,493	6,493	-	-	-	-	142	142	-	-	
2020	SERC	C-1074	Alachua, City of	U.S.	2,504	2,504	-	-	2,451	2,451	-	-	-	-	54	54	-	-	
2020	SERC	C-1075	Bartow, City of	U.S.	5,521	5,521	-	-	5,402	5,402	-	-	-	-	118	118	-	-	
2020	SERC	C-1076	Chattahoochee, City of	U.S.	652	652	-	-	638	638	-	-	-	-	14	14	-	-	
2020	SERC	C-1077	Florida Keys Electric Cooperative Assn	U.S.	14,276	14,276	-	-	13,969	13,969	-	-	-	-	306	306	-	-	
2020	SERC	C-1078	Florida Power & Light Co.	U.S.	2,285,421	2,285,421	-	-	2,236,381	2,236,381	-	-	-	-	49,040	49,040	-	-	
2020	SERC	C-1079	Florida Public Utilities Company	U.S.	6,320	6,320	-	-	6,185	6,185	-	-	-	-	136	136	-	-	
2020	SERC	C-1080	Gainesville Regional Utilities	U.S.	35,434	35,434	-	-	34,674	34,674	-	-	-	-	760	760	-	-	
2020	SERC	C-1081	Homestead, City of	U.S.	10,915	10,915	-	-	10,680	10,680	-	-	-	-	234	234	-	-	
2020	SERC	C-1082	JEA	U.S.	228,329	228,329	-	-	223,430	223,430	-	-	-	-	4,899	4,899	-	-	
2020	SERC	C-1083	Lakeland Electric	U.S.	58,653	58,653	-	-	57,395	57,395	-	-	-	-	1,259	1,259	-	-	
2020	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	80,526	80,526	-	-	78,798	78,798	-	-	-	-	1,728	1,728	-	-	
2020	SERC	C-1661	City of Lake Worth	U.S.	8,566	8,566	-	-	8,382	8,382	-	-	-	-	184	184	-	-	
2020	SERC	C-1084	Mount Dora, City of	U.S.	1,672	1,672	-	-	1,636	1,636	-	-	-	-	36	36	-	-	
2020	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	8,468	8,468	-	-	8,286	8,286	-	-	-	-	182	182	-	-	
2020	SERC	C-1086	Orlando Utilities Commission	U.S.	136,869	136,869	-	-	133,932	133,932	-	-	-	-	2,937	2,937	-	-	
2020	SERC	C-1087	Duke Energy Florida	U.S.	774,150	774,150	-	-	757,539	757,539	-	-	-	-	16,612	16,612	-	-	
2020	SERC	C-1088	Quincy, City of	U.S.	2,621	2,621	-	-	2,565	2,565	-	-	-	-	56	56	-	-	
2020	SERC	C-1089	Reedy Creek Improvement District	U.S.	17,526	17,526	-	-	17,150	17,150	-	-	-	-	376	376	-	-	
2020	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	15,436	15,436	-	-	15,105	15,105	-	-	-	-	331	331	-	-	
2020	SERC	C-1091	Tallahassee, City of	U.S.	48,889	48,889	-	-	47,840	47,840	-	-	-	-	1,049	1,049	-	-	
2020	SERC	C-1092	Tampa Electric Company	U.S.	377,352	377,352	-	-	369,255	369,255	-	-	-	-	8,097	8,097	-	-	
2020	SERC	C-1093	Wauchula, City of	U.S.	1,192	1,192	-	-	1,166	1,166	-	-	-	-	26	26	-	-	
2020	SERC	C-1094	Williston, City of	U.S.	609	609	-	-	596	596	-	-	-	-	13	13	-	-	
2020	SERC	C-1095	Winter Park, City of	U.S.	8,032	8,032	-	-	7,860	7,860	-	-	-	-	172	172	-	-	
2020	SERC	C-1724	Moore Haven, City of	U.S.	315	315	-	-	308	308	-	-	-	-	7	7	-	-	
2020	SERC	C-1072	Florida Municipal Power Agency	U.S.	118,950	118,950	-	-	116,397	116,397	-	-	-	-	2,552	2,552	-	-	
2020	SERC	C-1073	Seminole Electric Cooperative	U.S.	279,990	279,990	-	-	273,982	273,982	-	-	-	-	6,008	6,008	-	-	
TOTAL SERC					23,127,549	23,127,549	-	-	22,631,283	22,631,283	-	-	-	-	496,266	496,266	-	-	
2020 Texas RE C-1019 ERCOT					U.S.	6,844,590	6,844,590	-	-	6,697,721	6,697,721	-	-	-	-	146,870	146,870	-	-
TOTAL ERCOT					6,844,590	6,844,590	-	-	6,697,721	6,697,721	-	-	-	-	146,870	146,870	-	-	
2020 WECC Alberta Electric System Operator					Canada	769,873	-	769,873	-	1,053,727	-	1,053,727	-	-	-	(283,854)	-	(283,854)	-
2020 WECC British Columbia Hydro & Power Authority					Canada	1,116,972	-	1,116,972	-	1,093,004	-	1,093,004	-	-	-	23,968	-	23,968	-
2020 WECC Centro Nacional de Control de Energia					Mexico	263,191	-	-	263,191	257,543	-	-	257,543	-	-	5,647	-	-	5,647
2020 WECC 3 Phases Renewables					U.S.	76	76	-	-	74	74	-	-	-	-	2	2	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico
2020	WECC		Aguila Irrigation District - APS	U.S.	644	644	-	-	630	630	-	-	-	-	14	14	-	-
2020	WECC		Aha Macav Power Service	U.S.	320	320	-	-	313	313	-	-	-	-	7	7	-	-
2020	WECC		Ajo Improvement District	U.S.	216	216	-	-	212	212	-	-	-	-	5	5	-	-
2020	WECC		Arizona Electric Power Cooperative, Inc	U.S.	67,927	67,927	-	-	66,469	66,469	-	-	-	-	1,458	1,458	-	-
2020	WECC		Arizona Public Service Company	U.S.	532,059	532,059	-	-	520,642	520,642	-	-	-	-	11,417	11,417	-	-
2020	WECC		Arkansas River Power Authority (ARPA)	U.S.	4,348	4,348	-	-	4,255	4,255	-	-	-	-	93	93	-	-
2020	WECC		Avangrid Renewables	U.S.	385	385	-	-	376	376	-	-	-	-	8	8	-	-
2020	WECC		Avista Corporation	U.S.	166,777	166,777	-	-	163,198	163,198	-	-	-	-	3,579	3,579	-	-
2020	WECC		Barrick Goldstrike Mines Inc.	U.S.	26,128	26,128	-	-	25,567	25,567	-	-	-	-	561	561	-	-
2020	WECC		Basin Electric Power Cooperative - NorthWestern	U.S.	14,785	14,785	-	-	14,468	14,468	-	-	-	-	317	317	-	-
2020	WECC		Basin Electric Power Cooperative - WACM	U.S.	36,108	36,108	-	-	35,333	35,333	-	-	-	-	775	775	-	-
2020	WECC		Basin Electric Power Cooperative - WAUW	U.S.	2,601	2,601	-	-	2,545	2,545	-	-	-	-	56	56	-	-
2020	WECC		Beartooth Electric Cooperative	U.S.	1,455	1,455	-	-	1,424	1,424	-	-	-	-	31	31	-	-
2020	WECC		Big Horn County Electric Cooperative	U.S.	1,264	1,264	-	-	1,237	1,237	-	-	-	-	27	27	-	-
2020	WECC		Black Hills Energy	U.S.	36,846	36,846	-	-	36,056	36,056	-	-	-	-	791	791	-	-
2020	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	82,842	82,842	-	-	81,065	81,065	-	-	-	-	1,778	1,778	-	-
2020	WECC		Black Hills State University South Dakota	U.S.	295	295	-	-	289	289	-	-	-	-	6	6	-	-
2020	WECC		Bonneville Power Administration-Transmission	U.S.	983,564	983,564	-	-	962,459	962,459	-	-	-	-	21,105	21,105	-	-
2020	WECC		Bonneville Power Administration-Power Services	U.S.	116,042	116,042	-	-	113,552	113,552	-	-	-	-	2,490	2,490	-	-
2020	WECC		Bonneville Power Administration-Hydro	U.S.	3,720	3,720	-	-	3,640	3,640	-	-	-	-	80	80	-	-
2020	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	387	387	-	-	379	379	-	-	-	-	8	8	-	-
2020	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	0	0	-	-	0	0	-	-	-	-	0	0	-	-
2020	WECC		Bureau of Reclamation (Wellfield)	U.S.	93	93	-	-	91	91	-	-	-	-	2	2	-	-
2020	WECC		Burlington	U.S.	565	565	-	-	553	553	-	-	-	-	12	12	-	-
2020	WECC		Caesars Entertainment LLC/North	U.S.	853	853	-	-	834	834	-	-	-	-	18	18	-	-
2020	WECC		Caesars Entertainment LLC/South	U.S.	7,045	7,045	-	-	6,894	6,894	-	-	-	-	151	151	-	-
2020	WECC		California Independent System Operator	U.S.	3,873,067	3,873,067	-	-	3,789,959	3,789,959	-	-	-	-	83,107	83,107	-	-
2020	WECC		Calpine Energy Solutions, LLC.	U.S.	25,742	25,742	-	-	25,189	25,189	-	-	-	-	552	552	-	-
2020	WECC		Central Arizona Water Conservation District - WALC	U.S.	34,816	34,816	-	-	34,069	34,069	-	-	-	-	747	747	-	-
2020	WECC		Circus Circus Las Vegas	U.S.	856	856	-	-	838	838	-	-	-	-	18	18	-	-
2020	WECC		City of Aztec Electric Dept. - WACM	U.S.	631	631	-	-	617	617	-	-	-	-	14	14	-	-
2020	WECC		City of Fallon	U.S.	1,654	1,654	-	-	1,619	1,619	-	-	-	-	35	35	-	-
2020	WECC		City of Farmington	U.S.	16,539	16,539	-	-	16,184	16,184	-	-	-	-	355	355	-	-
2020	WECC		City of Gallup	U.S.	2,915	2,915	-	-	2,852	2,852	-	-	-	-	63	63	-	-
2020	WECC		City of Henderson	U.S.	799	799	-	-	782	782	-	-	-	-	17	17	-	-
2020	WECC		City of Las Vegas	U.S.	766	766	-	-	749	749	-	-	-	-	16	16	-	-
2020	WECC		City of Mesa	U.S.	4,710	4,710	-	-	4,609	4,609	-	-	-	-	101	101	-	-
2020	WECC		City of North Las Vegas	U.S.	390	390	-	-	381	381	-	-	-	-	8	8	-	-
2020	WECC		City of Page	U.S.	1,380	1,380	-	-	1,351	1,351	-	-	-	-	30	30	-	-
2020	WECC		City of Redding	U.S.	13,734	13,734	-	-	13,439	13,439	-	-	-	-	295	295	-	-
2020	WECC		City of Roseville	U.S.	21,392	21,392	-	-	20,933	20,933	-	-	-	-	459	459	-	-
2020	WECC		City of Tacoma DBA Tacoma Power	U.S.	87,686	87,686	-	-	85,804	85,804	-	-	-	-	1,882	1,882	-	-
2020	WECC		City of Williams	U.S.	865	865	-	-	846	846	-	-	-	-	19	19	-	-
2020	WECC		Clark County Water Reclamation District	U.S.	1,358	1,358	-	-	1,329	1,329	-	-	-	-	29	29	-	-
2020	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	172	172	-	-	168	168	-	-	-	-	4	4	-	-
2020	WECC		Colorado River Commission of Nevada	U.S.	5,642	5,642	-	-	5,521	5,521	-	-	-	-	121	121	-	-
2020	WECC		Colorado Springs Utilities	U.S.	92,352	92,352	-	-	90,370	90,370	-	-	-	-	1,982	1,982	-	-
2020	WECC		Colorado Springs Utilities - WACM	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Constellation New Energy	U.S.	8,495	8,495	-	-	8,312	8,312	-	-	-	-	182	182	-	-
2020	WECC		Delta-Montrose Electric Association	U.S.	5,155	5,155	-	-	5,045	5,045	-	-	-	-	111	111	-	-
2020	WECC		Deseret Generation & Transmission Cooperative - WACM	U.S.	1,615	1,615	-	-	1,580	1,580	-	-	-	-	35	35	-	-
2020	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	379	379	-	-	371	371	-	-	-	-	8	8	-	-
2020	WECC		El Paso Electric Company	U.S.	155,462	155,462	-	-	152,126	152,126	-	-	-	-	3,336	3,336	-	-
2020	WECC		Electrical District #2	U.S.	3,493	3,493	-	-	3,418	3,418	-	-	-	-	75	75	-	-
2020	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	136	136	-	-	133	133	-	-	-	-	3	3	-	-
2020	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	12	12	-	-	12	12	-	-	-	-	0	0	-	-
2020	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	873	873	-	-	855	855	-	-	-	-	19	19	-	-
2020	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	7,749	7,749	-	-	7,583	7,583	-	-	-	-	166	166	-	-
2020	WECC		Francis E. Warren Air Force Base	U.S.	436	436	-	-	426	426	-	-	-	-	9	9	-	-
2020	WECC		Georgia Pacific Gypsum, LLC	U.S.	427	427	-	-	418	418	-	-	-	-	9	9	-	-
2020	WECC		Grand Valley Power	U.S.	4,592	4,592	-	-	4,494	4,494	-	-	-	-	99	99	-	-
2020	WECC		Harquahala Valley Power Districts - APS	U.S.	2,008	2,008	-	-	1,965	1,965	-	-	-	-	43	43	-	-
2020	WECC		Holy Cross Energy	U.S.	4,049	4,049	-	-	3,962	3,962	-	-	-	-	87	87	-	-
2020	WECC		Idaho Power Company	U.S.	286,417	286,417	-	-	280,271	280,271	-	-	-	-	6,146	6,146	-	-
2020	WECC		Imperial Irrigation District	U.S.	68,585	68,585	-	-	67,114	67,114	-	-	-	-	1,472	1,472	-	-
2020	WECC		Intermountain Rural Electric Association	U.S.	44,111	44,111	-	-	43,164	43,164	-	-	-	-	947	947	-	-
2020	WECC		Jicarilla Apache Nation Power Authority	U.S.	455	455	-	-	445	445	-	-	-	-	10	10	-	-
2020	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	4,923	4,923	-	-	4,818	4,818	-	-	-	-	106	106	-	-
2020	WECC		Kit Carson Electric Inc	U.S.	5,020	5,020	-	-	4,912	4,912	-	-	-	-	108	108	-	-
2020	WECC		Las Vegas Valley Water District	U.S.	2,057	2,057	-	-	2,013	2,013	-	-	-	-	44	44	-	-
2020	WECC		Los Angeles Department of Water and Power	U.S.	470,102	470,102	-	-	460,015	460,015	-	-	-	-	10,087	10,087	-	-
2020	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	1,033	1,033	-	-	1,011	1,011	-	-	-	-	22	22	-	-
2020	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	2,854	2,854	-	-	2,793	2,793	-	-	-	-	61	61	-	-
2020	WECC		Merced Irrigation District	U.S.	9,483	9,483	-	-	9,279	9,279	-	-	-	-	203	203	-	-
2020	WECC		MGM Resorts Design and Development	U.S.	11,778	11,778	-	-	11,526	11,526	-	-	-	-	253	253	-	-
2020	WECC		Modesto Irrigation District	U.S.	48,127	48,127	-	-	47,095	47,095	-	-	-	-	1,033	1,033	-	-
2020	WECC		Montana-Dakota Utilities Co.	U.S.	404	404	-	-	395	395	-	-	-	-	9	9	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-C

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits				
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico	
2020	WECC		Mt. Wheeler Power	U.S.	10,975	10,975	-	-	10,740	10,740	-	-	-	-	236	236	-	-	
2020	WECC		Municipal Energy Agency of Nebraska - PSCO	U.S.	3,312	3,312	-	-	3,241	3,241	-	-	-	-	71	71	-	-	
2020	WECC		Municipal Energy Agency of Nebraska - WACM	U.S.	11,563	11,563	-	-	11,315	11,315	-	-	-	-	248	248	-	-	
2020	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	WECC		Navajo Tribal Utility Authority - APS	U.S.	1,024	1,024	-	-	1,002	1,002	-	-	-	-	22	22	-	-	
2020	WECC		Navajo Tribal Utility Authority - PNM	U.S.	3,595	3,595	-	-	3,517	3,517	-	-	-	-	77	77	-	-	
2020	WECC		Navajo Tribal Utility Authority - WACM	U.S.	4,294	4,294	-	-	4,202	4,202	-	-	-	-	92	92	-	-	
2020	WECC		Nebraska Public Power Marketing	U.S.	66	66	-	-	65	65	-	-	-	-	1	1	-	-	
2020	WECC		Needles Public Utilities Authority	U.S.	870	870	-	-	851	851	-	-	-	-	19	19	-	-	
2020	WECC		Nevada Power Company dba NV Energy	U.S.	561,038	561,038	-	-	549,000	549,000	-	-	-	-	12,039	12,039	-	-	
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	172,512	172,512	-	-	168,810	168,810	-	-	-	-	3,702	3,702	-	-	
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - WAUW	U.S.	5,025	5,025	-	-	4,918	4,918	-	-	-	-	108	108	-	-	
2020	WECC		Okanogan PUD	U.S.	11,352	11,352	-	-	11,108	11,108	-	-	-	-	244	244	-	-	
2020	WECC		Overton Power District No. 5	U.S.	7,272	7,272	-	-	7,116	7,116	-	-	-	-	156	156	-	-	
2020	WECC		PacificCorp	U.S.	893,845	893,845	-	-	874,665	874,665	-	-	-	-	19,180	19,180	-	-	
2020	WECC		PacificCorp - IPC	U.S.	35	35	-	-	35	35	-	-	-	-	1	1	-	-	
2020	WECC		PacificCorp - Portland General	U.S.	70	70	-	-	69	69	-	-	-	-	2	2	-	-	
2020	WECC		PacificCorp - WACM	U.S.	2,094	2,094	-	-	2,049	2,049	-	-	-	-	45	45	-	-	
2020	WECC		PacificCorp West	U.S.	372,470	372,470	-	-	364,477	364,477	-	-	-	-	7,992	7,992	-	-	
2020	WECC		Pend Oreille County PUD No. 1	U.S.	9,478	9,478	-	-	9,274	9,274	-	-	-	-	203	203	-	-	
2020	WECC		Peppermill Hotel Casino	U.S.	825	825	-	-	807	807	-	-	-	-	18	18	-	-	
2020	WECC		Platte River Power Authority	U.S.	57,275	57,275	-	-	56,046	56,046	-	-	-	-	1,229	1,229	-	-	
2020	WECC		Portland General Electric Company	U.S.	323,541	323,541	-	-	316,598	316,598	-	-	-	-	6,942	6,942	-	-	
2020	WECC		Public Service Company of Colorado (Xcel)	U.S.	568,398	568,398	-	-	556,202	556,202	-	-	-	-	12,197	12,197	-	-	
2020	WECC		Public Service Company of Colorado (Xcel) - WACM	U.S.	1,279	1,279	-	-	1,251	1,251	-	-	-	-	27	27	-	-	
2020	WECC		Public Service Company of New Mexico	U.S.	170,615	170,615	-	-	166,954	166,954	-	-	-	-	3,661	3,661	-	-	
2020	WECC		Public Utility District No. 1 of Chelan County	U.S.	31,871	31,871	-	-	31,187	31,187	-	-	-	-	684	684	-	-	
2020	WECC		PUD No. 1 of Douglas County	U.S.	19,496	19,496	-	-	19,078	19,078	-	-	-	-	418	418	-	-	
2020	WECC		PUD No. 2 of Grant County	U.S.	90,499	90,499	-	-	88,557	88,557	-	-	-	-	1,942	1,942	-	-	
2020	WECC		PUD No. 2 of Grant County - Avista	U.S.	1,660	1,660	-	-	1,624	1,624	-	-	-	-	36	36	-	-	
2020	WECC		Puget Sound Energy, Inc.	U.S.	422,737	422,737	-	-	413,666	413,666	-	-	-	-	9,071	9,071	-	-	
2020	WECC		Raton Public Service	U.S.	862	862	-	-	844	844	-	-	-	-	18	18	-	-	
2020	WECC		Reno City Center	U.S.	53	53	-	-	52	52	-	-	-	-	1	1	-	-	
2020	WECC		Roosevelt Irrigation District - APS	U.S.	758	758	-	-	741	741	-	-	-	-	16	16	-	-	
2020	WECC		Sacramento Municipal Utility District	U.S.	200,732	200,732	-	-	196,425	196,425	-	-	-	-	4,307	4,307	-	-	
2020	WECC		Sahara Las Vegas	U.S.	431	431	-	-	422	422	-	-	-	-	9	9	-	-	
2020	WECC		Salt River Project	U.S.	577,293	577,293	-	-	564,906	564,906	-	-	-	-	12,387	12,387	-	-	
2020	WECC		Seattle City Light	U.S.	164,944	164,944	-	-	161,405	161,405	-	-	-	-	3,539	3,539	-	-	
2020	WECC		Shell Energy North America	U.S.	3,191	3,191	-	-	3,123	3,123	-	-	-	-	68	68	-	-	
2020	WECC		Silver State Energy Association	U.S.	11,302	11,302	-	-	11,059	11,059	-	-	-	-	243	243	-	-	
2020	WECC		Southern Nevada Water Authority	U.S.	2,404	2,404	-	-	2,353	2,353	-	-	-	-	52	52	-	-	
2020	WECC		Switch-North	U.S.	2,349	2,349	-	-	2,299	2,299	-	-	-	-	50	50	-	-	
2020	WECC		Switch-South	U.S.	11,547	11,547	-	-	11,299	11,299	-	-	-	-	248	248	-	-	
2020	WECC		The Incorporated County of Los Alamos	U.S.	10,219	10,219	-	-	10,000	10,000	-	-	-	-	219	219	-	-	
2020	WECC		Tohono O'odham Utility Authority	U.S.	1,180	1,180	-	-	1,155	1,155	-	-	-	-	25	25	-	-	
2020	WECC		Tonopah Irrigation District - APS	U.S.	671	671	-	-	657	657	-	-	-	-	14	14	-	-	
2020	WECC		Town of Center	U.S.	85	85	-	-	83	83	-	-	-	-	2	2	-	-	
2020	WECC		Town of Fredonia - WACM	U.S.	197	197	-	-	193	193	-	-	-	-	4	4	-	-	
2020	WECC		Town of Wickenburg	U.S.	741	741	-	-	725	725	-	-	-	-	16	16	-	-	
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - PSCO	U.S.	52,778	52,778	-	-	51,645	51,645	-	-	-	-	1,132	1,132	-	-	
2020	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - WACM	U.S.	146,231	146,231	-	-	143,093	143,093	-	-	-	-	3,138	3,138	-	-	
2020	WECC		Tri-State Generation & Transmission Association, Inc. - PNM	U.S.	46,069	46,069	-	-	45,080	45,080	-	-	-	-	989	989	-	-	
2020	WECC		Truckee Donner Public Utility District	U.S.	2,979	2,979	-	-	2,915	2,915	-	-	-	-	64	64	-	-	
2020	WECC		Tucson Electric Power Company	U.S.	270,546	270,546	-	-	264,740	264,740	-	-	-	-	5,805	5,805	-	-	
2020	WECC		Turlock Irrigation District	U.S.	41,274	41,274	-	-	40,389	40,389	-	-	-	-	886	886	-	-	
2020	WECC		U.S. Army Yuma Proving Ground	U.S.	354	354	-	-	346	346	-	-	-	-	8	8	-	-	
2020	WECC		US Dept of Energy - Kirtland AFB	U.S.	7,616	7,616	-	-	7,453	7,453	-	-	-	-	163	163	-	-	
2020	WECC		Western Area Power - Loveland, CO - PSCO	U.S.	3,119	3,119	-	-	3,052	3,052	-	-	-	-	67	67	-	-	
2020	WECC		Western Area Power - Loveland, CO - WACM	U.S.	23,404	23,404	-	-	22,902	22,902	-	-	-	-	502	502	-	-	
2020	WECC		Western Area Power Administration - CRSP	U.S.	26,162	26,162	-	-	25,600	25,600	-	-	-	-	561	561	-	-	
2020	WECC		Western Area Power Administration - Sierra Nevada Region	U.S.	29,536	29,536	-	-	28,903	28,903	-	-	-	-	634	634	-	-	
2020	WECC		Western Area Power Administration-Desert Southwest Region - WALC	U.S.	38,609	38,609	-	-	37,780	37,780	-	-	-	-	828	828	-	-	
2020	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	6,520	6,520	-	-	6,380	6,380	-	-	-	-	140	140	-	-	
2020	WECC		Western Area Power Administration-Upper Great Plains Region - NorthWestern	U.S.	150	150	-	-	147	147	-	-	-	-	3	3	-	-	
2020	WECC		Wynn Las Vegas	U.S.	2,785	2,785	-	-	2,725	2,725	-	-	-	-	60	60	-	-	
2020	WECC		Wyoming Municipal Power Agency	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	WECC		Yampa Valley Electric Association	U.S.	9,501	9,501	-	-	9,297	9,297	-	-	-	-	204	204	-	-	
TOTAL WECC					15,030,754	12,880,718	1,886,845	263,191	15,008,601	12,604,327	2,146,731	257,543	-	-	22,153	276,392	(259,886)	5,647	
TOTAL ERO					78,387,280	70,691,258	7,432,831	263,191	78,387,280	69,174,379	8,955,357	257,543	-	-	-	1,516,879	(1,522,526)	5,647	-

Summary by Regional Entity

2020	MRO				8,588,263	7,698,403	889,860	-	8,403,978	7,533,213	870,765	-	-	184,285	165,191	19,094	-	
2020	NPCC				9,442,667	4,786,540	4,656,127	-	10,621,693	4,683,832	5,937,861	-	-	(1,179,026)	102,709	(1,281,734)	-	
2020	RF				15,353,456	15,353,456	-	-	15,024,004	15,024,004	-	-	-	-	329,451	329,451	-	-

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total NERC Assessments				NERC NEL Assessments				Penalty Sanctions		NERC Compliance Credits			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Mexico
2020	SERC				23,127,549	23,127,549	-	-	22,631,283	22,631,283	-	-	-	-	496,266	496,266	-	-
2020	Texas RE				6,844,590	6,844,590	-	-	6,697,721	6,697,721	-	-	-	-	146,870	146,870	-	-
2020	WECC				15,030,754	12,880,718	1,886,845	263,191	15,008,601	12,604,327	2,146,731	257,543	-	-	22,153	276,392	(259,886)	5,647
Total					78,387,280	70,691,258	7,432,831	263,191	78,387,280	69,174,379	8,955,357	257,543	-	-	-	1,516,879	(1,522,526)	5,647

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPCC CORC Program			WECC Compliance Assessments (ex.AES0)				WIRAB Assessments								
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Total	US	Canada	Mexico	Total	US	Canada	Mexico					
2020	SERC	C-1561	Public Service Commission of Yazoo City of Mississippi	U.S.	2,114	2,114	-	-	2,216	2,216	-	-	(102)	(102)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1654	Sikeston Board of Municipal Utilities	U.S.	7,115	7,115	-	-	7,459	7,459	-	-	(344)	(344)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1074	Alachua, City of	U.S.	2,685	2,685	-	-	2,815	2,815	-	-	(130)	(130)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1075	Bartow, City of	U.S.	5,920	5,920	-	-	6,206	6,206	-	-	(286)	(286)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1076	Chattahoochee, City of	U.S.	699	699	-	-	733	733	-	-	(34)	(34)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1077	Florida Keys Electric Cooperative Assn	U.S.	15,307	15,307	-	-	16,048	16,048	-	-	(741)	(741)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1078	Florida Power & Light Co.	U.S.	2,450,584	2,450,584	-	-	2,569,166	2,569,166	-	-	(118,582)	(118,582)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1079	Florida Public Utilities Company	U.S.	6,777	6,777	-	-	7,105	7,105	-	-	(328)	(328)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1080	Gainesville Regional Utilities	U.S.	37,995	37,995	-	-	39,833	39,833	-	-	(1,839)	(1,839)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1081	Homestead, City of	U.S.	11,703	11,703	-	-	12,270	12,270	-	-	(566)	(566)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1082	JE A	U.S.	244,820	244,820	-	-	256,677	256,677	-	-	(11,847)	(11,847)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1083	Lakeland Electric	U.S.	62,892	62,892	-	-	65,936	65,936	-	-	(3,043)	(3,043)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	86,345	86,345	-	-	90,523	90,523	-	-	(4,178)	(4,178)	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2020	SERC	C-1661	City of Lake Worth	U.S.	9,185	9,185	-	-	9,630	9,630	-	-	(444)	(444)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1084	Mount Dora, City of	U.S.	1,793	1,793	-	-	1,880	1,880	-	-	(87)	(87)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	9,080	9,080	-	-	9,519	9,519	-	-	(439)	(439)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1086	Orlando Utilities Commission	U.S.	146,760	146,760	-	-	153,861	153,861	-	-	(7,102)	(7,102)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1087	Duke Energy Florida	U.S.	830,097	830,097	-	-	870,264	870,264	-	-	(40,168)	(40,168)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1088	Quincy, City of	U.S.	2,811	2,811	-	-	2,947	2,947	-	-	(136)	(136)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1089	Reedy Creek Improvement District	U.S.	18,793	18,793	-	-	19,702	19,702	-	-	(909)	(909)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	16,551	16,551	-	-	17,352	17,352	-	-	(801)	(801)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1091	Tallahassee, City of	U.S.	52,422	52,422	-	-	54,959	54,959	-	-	(2,537)	(2,537)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1092	Tampa Electric Company	U.S.	404,623	404,623	-	-	424,302	424,302	-	-	(19,679)	(19,679)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1093	Wauschula, City of	U.S.	1,278	1,278	-	-	1,340	1,340	-	-	(62)	(62)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1094	Williston, City of	U.S.	653	653	-	-	685	685	-	-	(32)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1095	Winter Park, City of	U.S.	8,613	8,613	-	-	9,029	9,029	-	-	(417)	(417)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1724	Moore Haven, City of	U.S.	338	338	-	-	354	354	-	-	(16)	(16)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1072	Florida Municipal Power Agency	U.S.	127,546	127,546	-	-	133,718	133,718	-	-	(6,172)	(6,172)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	SERC	C-1073	Seminole Electric Cooperative	U.S.	300,225	300,225	-	-	314,752	314,752	-	-	(14,528)	(14,528)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL SERC					24,798,934	24,798,934	-	-	25,998,934	25,998,934	-	-	(1,200,000)	(1,200,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	Texas RE	C-1019	ERCOT	U.S.	15,003,365	15,003,365	-	-	15,562,115	15,562,115	-	-	(558,750)	(558,750)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL ERCOT					15,003,365	15,003,365	-	-	15,562,115	15,562,115	-	-	(558,750)	(558,750)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Alberta Electric System Operator	Canada	1,001,889	-	1,001,889	-	2,127,168	-	2,127,168	-	-	-	-	-	-	-	-	-	-	(1,174,334)	-	(1,174,334)	-	49,054	-	49,054	-	
2020	WECC		British Columbia Hydro & Power Authority	Canada	2,349,319	-	2,349,319	-	2,206,457	-	2,206,457	-	-	-	-	-	-	-	-	-	-	91,979	-	91,979	-	50,883	-	50,883	-	
2020	WECC		Centro Nacional de Control de Energia	Mexico	553,568	-	-	553,568	519,905	-	-	-	-	-	-	-	-	-	-	-	-	21,673	-	21,673	-	11,989	-	11,989	-	
2020	WECC		3 Phases Renewables	U.S.	128	128	-	-	150	150	-	-	(31)	(31)	-	-	-	-	-	-	-	6	6	-	3	3	-	-		
2020	WECC		Aguila Irrigation District - APS	U.S.	1,089	1,089	-	-	1,272	1,272	-	-	(265)	(265)	-	-	-	-	-	-	-	53	53	-	29	29	-	-		
2020	WECC		Aha Macav Power Service	U.S.	542	542	-	-	633	633	-	-	(132)	(132)	-	-	-	-	-	-	-	26	26	-	15	15	-	-		
2020	WECC		Ajo Improvement District	U.S.	366	366	-	-	427	427	-	-	(89)	(89)	-	-	-	-	-	-	-	18	18	-	10	10	-	-		
2020	WECC		Arizona Electric Power Cooperative, Inc	U.S.	114,931	114,931	-	-	134,182	134,182	-	-	(27,939)	(27,939)	-	-	-	-	-	-	-	5,994	5,994	-	3,094	3,094	-	-		
2020	WECC		Arizona Public Service Company	U.S.	900,234	900,234	-	-	1,051,026	1,051,026	-	-	(218,843)	(218,843)	-	-	-	-	-	-	-	43,813	43,813	-	24,238	24,238	-	-		
2020	WECC		Arkansas River Power Authority (ARPA)	U.S.	7,357	7,357	-	-	8,589	8,589	-	-	(1,788)	(1,788)	-	-	-	-	-	-	-	358	358	-	198	198	-	-		
2020	WECC		Avangrid Renewables	U.S.	651	651	-	-	760	760	-	-	(158)	(158)	-	-	-	-	-	-	-	32	32	-	18	18	-	-		
2020	WECC		Avista Corporation	U.S.	282,183	282,183	-	-	329,449	329,449	-	-	(68,597)	(68,597)	-	-	-	-	-	-	-	13,733	13,733	-	7,597	7,597	-	-		
2020	WECC		Barrick Goldstrike Mines Inc.	U.S.	44,207	44,207	-	-	51,612	51,612	-	-	(10,747)	(10,747)	-	-	-	-	-	-	-	2,152	2,152	-	1,190	1,190	-	-		
2020	WECC		Basin Electric Power Cooperative - NorthWestern	U.S.	25,016	25,016	-	-	29,206	29,206	-	-	(6,083)	(6,083)	-	-	-	-	-	-	-	1,217	1,217	-	674	674	-	-		
2020	WECC		Basin Electric Power Cooperative - WACM	U.S.	61,094	61,094	-	-	71,327	71,327	-	-	(14,852)	(14,852)	-	-	-	-	-	-	-	2,973	2,973	-	1,645	1,645	-	-		
2020	WECC		Basin Electric Power Cooperative - WALUW	U.S.	4,400	4,400	-	-	5,137	5,137	-	-	(1,070)	(1,070)	-	-	-	-	-	-	-	214	214	-	118	118	-	-		
2020	WECC		Beartooth Electric Cooperative	U.S.	2,462	2,462	-	-	2,875	2,875	-	-	(599)	(599)	-	-	-	-	-	-	-	120	120	-	66	66	-	-		
2020	WECC		Big Horn County Electric Cooperative	U.S.	2,139	2,139	-	-	2,498	2,498	-	-	(520)	(520)	-	-	-	-	-	-	-	104	104	-	58	58	-	-		
2020	WECC		Black Hills Energy	U.S.	62,343	62,343	-	-	72,786	72,786	-	-	(15,155)	(15,155)	-	-	-	-												

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-D

Data Year	Regional Entity	NERC ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPPC CORC Program			WECC Compliance Assessments (ex.AESO)				WIRAB Assessments				
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Total	US	Canada	Mexico	Total	US	Canada	Mexico	
2020	WECC		El Paso Electric Company	U.S.	263,039	263,039	-	-	307,098	307,098	-	-	(63,943)	(63,943)	-	-	-	12,802	12,802	-	-	-	7,082	7,082	-	-
2020	WECC		Electrical District #2	U.S.	5,910	5,910	-	-	6,900	6,900	-	-	(1,437)	(1,437)	-	-	-	288	288	-	-	-	159	159	-	-
2020	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	229	229	-	-	268	268	-	-	(56)	(56)	-	-	-	11	11	-	-	-	6	6	-	-
2020	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	20	20	-	-	24	24	-	-	(5)	(5)	-	-	-	1	1	-	-	-	1	1	-	-
2020	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	1,478	1,478	-	-	1,725	1,725	-	-	(359)	(359)	-	-	-	72	72	-	-	-	40	40	-	-
2020	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	13,111	13,111	-	-	15,307	15,307	-	-	(3,187)	(3,187)	-	-	-	638	638	-	-	-	353	353	-	-
2020	WECC		Francis E. Warren Air Force Base	U.S.	737	737	-	-	861	861	-	-	(179)	(179)	-	-	-	36	36	-	-	-	20	20	-	-
2020	WECC		Georgia Pacific Gypsum, LLC	U.S.	722	722	-	-	843	843	-	-	(176)	(176)	-	-	-	35	35	-	-	-	19	19	-	-
2020	WECC		Grand Valley Power	U.S.	7,770	7,770	-	-	9,072	9,072	-	-	(1,889)	(1,889)	-	-	-	378	378	-	-	-	209	209	-	-
2020	WECC		Harquahala Valley Power Districts - APS	U.S.	3,398	3,398	-	-	3,967	3,967	-	-	(826)	(826)	-	-	-	165	165	-	-	-	91	91	-	-
2020	WECC		Holy Cross Energy	U.S.	6,851	6,851	-	-	7,999	7,999	-	-	(1,666)	(1,666)	-	-	-	333	333	-	-	-	184	184	-	-
2020	WECC		Idaho Power Company	U.S.	484,612	484,612	-	-	565,786	565,786	-	-	(117,807)	(117,807)	-	-	-	23,585	23,585	-	-	-	13,048	13,048	-	-
2020	WECC		Imperial Irrigation District	U.S.	116,045	116,045	-	-	135,483	135,483	-	-	(28,210)	(28,210)	-	-	-	5,648	5,648	-	-	-	3,124	3,124	-	-
2020	WECC		Intermountain Rural Electric Association	U.S.	74,634	74,634	-	-	87,136	87,136	-	-	(18,143)	(18,143)	-	-	-	3,632	3,632	-	-	-	2,009	2,009	-	-
2020	WECC		Jicarilla Apache Nation Power Authority	U.S.	770	770	-	-	899	899	-	-	(187)	(187)	-	-	-	37	37	-	-	-	21	21	-	-
2020	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	8,330	8,330	-	-	9,726	9,726	-	-	(2,025)	(2,025)	-	-	-	405	405	-	-	-	224	224	-	-
2020	WECC		Kit Carson Electric Inc	U.S.	8,494	8,494	-	-	9,916	9,916	-	-	(2,065)	(2,065)	-	-	-	413	413	-	-	-	229	229	-	-
2020	WECC		Las Vegas Valley Water District	U.S.	3,480	3,480	-	-	4,063	4,063	-	-	(846)	(846)	-	-	-	169	169	-	-	-	94	94	-	-
2020	WECC		Los Angeles Department of Water and Power	U.S.	795,404	795,404	-	-	928,636	928,636	-	-	(193,359)	(193,359)	-	-	-	38,711	38,711	-	-	-	21,415	21,415	-	-
2020	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	1,748	1,748	-	-	2,040	2,040	-	-	(425)	(425)	-	-	-	85	85	-	-	-	47	47	-	-
2020	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	4,829	4,829	-	-	5,638	5,638	-	-	(1,174)	(1,174)	-	-	-	235	235	-	-	-	130	130	-	-
2020	WECC		Merced Irrigation District	U.S.	16,045	16,045	-	-	18,732	18,732	-	-	(3,900)	(3,900)	-	-	-	781	781	-	-	-	432	432	-	-
2020	WECC		MGM Resorts Design and Development	U.S.	19,329	19,329	-	-	23,267	23,267	-	-	(4,845)	(4,845)	-	-	-	970	970	-	-	-	537	537	-	-
2020	WECC		Modesto Irrigation District	U.S.	81,431	81,431	-	-	95,070	95,070	-	-	(19,795)	(19,795)	-	-	-	3,963	3,963	-	-	-	2,192	2,192	-	-
2020	WECC		Montana-Dakota Utilities Co.	U.S.	684	684	-	-	798	798	-	-	(166)	(166)	-	-	-	33	33	-	-	-	18	18	-	-
2020	WECC		Mt. Wheeler Power	U.S.	18,570	18,570	-	-	21,680	21,680	-	-	(4,514)	(4,514)	-	-	-	904	904	-	-	-	500	500	-	-
2020	WECC		Municipal Energy Agency of Nebraska - PSCO	U.S.	5,603	5,603	-	-	6,542	6,542	-	-	(1,362)	(1,362)	-	-	-	273	273	-	-	-	151	151	-	-
2020	WECC		Municipal Energy Agency of Nebraska - WACM	U.S.	19,564	19,564	-	-	22,841	22,841	-	-	(4,756)	(4,756)	-	-	-	952	952	-	-	-	527	527	-	-
2020	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC		Navajo Tribal Utility Authority - APS	U.S.	1,733	1,733	-	-	2,023	2,023	-	-	(421)	(421)	-	-	-	84	84	-	-	-	47	47	-	-
2020	WECC		Navajo Tribal Utility Authority - PNM	U.S.	6,082	6,082	-	-	7,101	7,101	-	-	(1,478)	(1,478)	-	-	-	296	296	-	-	-	164	164	-	-
2020	WECC		Navajo Tribal Utility Authority - WACM	U.S.	7,266	7,266	-	-	8,483	8,483	-	-	(1,766)	(1,766)	-	-	-	354	354	-	-	-	196	196	-	-
2020	WECC		Nebraska Public Power Marketing	U.S.	112	112	-	-	131	131	-	-	(27)	(27)	-	-	-	5	5	-	-	-	3	3	-	-
2020	WECC		Needles Public Utilities Authority	U.S.	1,472	1,472	-	-	1,719	1,719	-	-	(358)	(358)	-	-	-	72	72	-	-	-	40	40	-	-
2020	WECC		Nevada Power Company dba NV Energy	U.S.	949,271	949,271	-	-	1,108,271	1,108,271	-	-	(230,762)	(230,762)	-	-	-	46,200	46,200	-	-	-	25,558	25,558	-	-
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	291,886	291,886	-	-	340,778	340,778	-	-	(70,956)	(70,956)	-	-	-	14,206	14,206	-	-	-	7,859	7,859	-	-
2020	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - WAUW	U.S.	8,503	8,503	-	-	9,927	9,927	-	-	(2,067)	(2,067)	-	-	-	414	414	-	-	-	229	229	-	-
2020	WECC		Okanogan PUD	U.S.	19,207	19,207	-	-	22,424	22,424	-	-	(4,669)	(4,669)	-	-	-	935	935	-	-	-	517	517	-	-
2020	WECC		Overton Power District No. 5	U.S.	12,304	12,304	-	-	14,365	14,365	-	-	(2,991)	(2,991)	-	-	-	599	599	-	-	-	331	331	-	-
2020	WECC		PacifiCorp	U.S.	1,512,368	1,512,368	-	-	1,765,694	1,765,694	-	-	(367,650)	(367,650)	-	-	-	73,605	73,605	-	-	-	40,719	40,719	-	-
2020	WECC		PacifiCorp - IPC	U.S.	60	60	-	-	70	70	-	-	(15)	(15)	-	-	-	3	3	-	-	-	2	2	-	-
2020	WECC		PacifiCorp - Portland General	U.S.	119	119	-	-	138	138	-	-	(29)	(29)	-	-	-	6	6	-	-	-	3	3	-	-
2020	WECC		PacifiCorp - WACM	U.S.	3,543	3,543	-	-	4,137	4,137	-	-	(861)	(861)	-	-	-	172	172	-	-	-	95	95	-	-
2020	WECC		PacifiCorp West	U.S.	630,212	630,212	-	-	735,774	735,774	-	-	(153,201)	(153,201)	-	-	-	30,672	30,672	-	-	-	16,968	16,968	-	-
2020	WECC		Pend Oreille County PUD No. 1	U.S.	16,036	16,036	-	-	18,722	18,722	-	-	(3,898)	(3,898)	-	-	-	780	780	-	-	-	432	432	-	-
2020	WECC		Peppermill Hotel Casino	U.S.	1,395	1,395	-	-	1,629	1,629	-	-	(339)	(339)	-	-	-	68	68	-	-	-	38	38	-	-
2020	WECC		Platte River Power Authority	U.S.	96,908	96,908	-	-	113,140	113,140	-	-	(23,558)	(23,558)	-	-	-	716	716	-	-	-	2,609	2,609	-	-
2020	WECC		Portland General Electric Company	U.S.	547,425	547,425	-	-	639,121	639,121	-	-	(133,076)	(133,076)	-	-	-	26,642	26,642	-	-	-	14,739	14,739	-	-
2020	WECC		Public Service Company of Colorado (Xcel)	U.S.	961,719	961,719	-	-	1,122,809	1,122,809	-	-	(233,789)	(233,789)	-	-	-	46,806	46,806	-	-	-	25,893	25,893	-	-
2020	WECC		Public Service Company of Colorado (Xcel) - WACM	U.S.	2,164	2,164	-	-	2,526	2,526	-	-	(526)	(526)	-	-	-	105	105	-	-	-	58	58	-	-
2020	WECC		Public Service Company of New Mexico	U.S.	288,678	288,678	-	-	337,032	337,032	-	-	(70,176)	(70,176)	-	-	-	14,050	14,050	-	-	-	7,772	7,772	-	-
2020	WECC		Public Utility District No. 1 of Chelan County	U.S.	53,925	53,925	-	-	62,958	62,958	-	-	(13,109)	(13,109)	-	-	-	2,624	2,624	-	-	-	1,452	1,452	-	-
2020	WECC		PUD No. 1 of Douglas County	U.S.	32,987	32,987	-	-	38,512	38,512	-	-	(8,019)	(8,019)	-	-	-	1,605	1,605	-	-	-	888	888	-	-
2020	WECC		PUD No. 2 of Grant County	U.S.	153,122	153,122	-	-	178,771	178,771	-	-	(37,223)	(37,223)	-	-	-	7,452	7,452	-	-	-	4,123	4,123	-	-
2020	WECC		PUD No. 2 of Grant County - Avista	U.S.	2,808	2,808	-	-	3,279	3,279	-	-	(683)	(683)	-	-	-	137	137	-	-	-	76	76	-	-
2020	WECC		Puget Sound Energy, Inc.	U.S.	715,262	715,262	-	-	835,070	835,070	-	-	(173,877)	(173,877)	-	-	-	34,811	34,811	-	-	-	19,257	19,257	-	-
2020	WECC		Raton Public Service	U.S.	1,459	1,459	-	-	1,703	1,703	-	-	(355)	(355)	-	-	-	71	71	-	-	-	39	39	-	-
2020	WECC		Reno City Center	U.S.	90	90	-	-	105	105	-	-	(22)	(22)	-	-	-	4	4	-	-	-	2	2	-	-
2020	WECC		Rosevelt Irrigation District - APS	U.S.	1,282	1,282	-	-	1,497	1,497	-	-	(312)	(312)	-	-	-	62	62	-	-	-	35	35	-	-
2020	WECC		Sacramento Municipal Utility District	U.S.	339,635	339,635	-	-	396,524	396,524	-	-	(82,564)	(82,564)	-	-	-	16,530	16,530	-	-	-	9,144	9,144	-	-
2020	WECC		Sahara Las Vegas	U.S.	730	730	-	-	852	852																

2020 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2022 NERC and RE Assessments

APPENDIX 2-D

Data Year	Regional Entity	NERC ID	Entity	Country	Total Regional Entity Assessments (Including WIRAB Assessments)				Regional Entity NEL Assessments				Penalty Sanctions - US Only		NPCC CORC Program			WECC Compliance Assessments (ex.AESO)				WIRAB Assessments										
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Total	US	Canada	Mexico	Total	US	Canada	Mexico							
2020	WECC		Wyoming Municipal Power Agency	U.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2020	WECC		Yampa Valley Electric Association	U.S.	16,076	16,076	-	-	18,769	18,769	-	-	-	(3,908)	(3,908)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL WECC					25,698,700	21,793,924	3,351,208	553,568	30,298,000	25,444,469	4,333,626	519,905	(5,298,000)	(5,298,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL ERO					122,693,671	110,605,900	11,534,203	553,568	123,874,828	113,331,159	10,023,764	519,905	(11,204,813)	(11,204,813)	9,324,956	6,832,099	2,492,857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Summary by Regional Entity																																	
2020	MRO					17,832,414	15,937,255	1,895,159	-	18,290,664	16,395,505	1,895,159	-	(458,250)	(458,250)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	NPCC					15,912,313	9,624,477	6,287,836	-	6,788,489	2,993,510	3,794,979	-	(201,132)	(201,132)	9,324,956	6,832,099	2,492,857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	RF					23,447,945	23,447,945	-	-	26,936,626	26,936,626	-	-	(3,488,681)	(3,488,681)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	SERC					24,798,934	24,798,934	-	-	25,998,934	25,998,934	-	-	(1,200,000)	(1,200,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	Texas RE					15,003,365	15,003,365	-	-	15,562,115	15,562,115	-	-	(558,750)	(558,750)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2020	WECC					25,698,700	21,793,924	3,351,208	553,568	30,298,000	25,444,469	4,333,626	519,905	(5,298,000)	(5,298,000)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total						122,693,671	110,605,900	11,534,203	553,568	123,874,828	113,331,159	10,023,764	519,905	(11,204,813)	(11,204,813)	9,324,956	6,832,099	2,492,857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 3

MIDWEST RELIABILITY ORGANIZATION

PROPOSED 2022 BUSINESS PLAN AND BUDGET



Midwest Reliability Organization

2022 Business Plan and Budget

Approved by MRO Board of Directors: June 24, 2021

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Introduction

The following table summarizes the 2022 Midwest Reliability Organization (MRO) budget.

	TOTAL RESOURCES (in whole dollars)			
	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs	71.00			
Non-statutory FTEs				
Total FTEs	71.00			
Statutory Expenses	\$ 19,909,361			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 19,909,361			
Statutory Inc(Dec) in Fixed Assets	\$ 125,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ 125,000			
Assessment Stabilization Adjustment	\$ (2,201,948)			
Non-Statutory Stabilization Adjustment				
Total Assessment Stabilization Adjustment	\$ (2,201,948)			
Total Statutory Funding Requirement	\$ 17,832,414			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 17,832,414			
Statutory Funding Assessments	\$ 17,832,414	\$ 15,937,255	\$ 1,895,159	-
Non-Statutory Fees				
NEL	479,196,453	429,545,253	49,651,200	-
NEL%	100.00%	89.64%	10.36%	0.00%

Table 1. MRO 2022 Budget

Organizational Overview

MRO is a Delaware nonprofit¹ corporation that is a cross-border Regional Entity² operating under a delegation agreement (Delegation Agreement) with the North American Electric Reliability Corporation (NERC)³ and in accordance with the MRO Bylaws. The MRO Region

¹ MRO is tax exempt under Internal Revenue Service Section 501(c)(3) and under applicable State of Minnesota provisions.

² 16 U.S.C. § 824o(a)(7)

³ The Commission certified NERC as the Electric Reliability Organization (ERO) in accordance with Section 215 of the Federal Power Act on July 20, 2006. *N. Am. Elec. Reliability Corp.*, 116 FERC ¶ 61, 062 (2006) (“ERO Certification Order”), *order on reh’g and compliance*, 117 FERC ¶ 61, 126 (2006), *aff’d sub nom. Alcoa Inc. v. FERC*, 564 F.3d 342 (D.C. Cir. 2009).

covers central North America and includes all or portions of 16 states within the United States,⁴ and the Canadian provinces of Saskatchewan and Manitoba. MRO's current Delegation Agreement was approved by the Federal Energy Regulatory Commission (FERC)⁵ pursuant to FERC's authority under the Federal Power Act (FPA)⁶ and is effective through December 31, 2025.

MRO's vision is:

"A highly reliable and secure North American bulk power system."

MRO's mission is:

"To identify, prioritize and assure effective and efficient mitigation of risks to the reliability and security of the North American bulk power system by promoting Highly Effective Reliability Organizations® (HEROs)."

MRO's vision and mission align with, and support, the Electric Reliability Organization (ERO) Enterprise's⁷ vision and mission.⁸

Further, MRO supports the ERO Enterprise Long-Term Strategy.⁹ Working closely with registered entities and subject matter experts in the MRO Region, MRO continually identifies and assesses risks to reliability of the regional bulk power system. Region-specific activities to support the direction of the ERO Enterprise and address regional risks are reflected in MRO's Strategic Plan, Operating Objectives and Supporting Activities (MRO Strategic Plan).

In the MRO Strategic Plan, MRO adopted the ERO Enterprise Core Principles¹⁰ to guide its conduct and behaviors.

MRO Core Principles

We are accountable for results, providing clarity and assurance of procedures, processes and controls to improve the reliability of the bulk power system. The following core principles guide our conduct and behavior:

- **Accountability**
 - *Maintain the public trust in fulfilling responsibilities and use our funding wisely.*
 - *Act in a timely manner on the basis of facts to address issues related to events, emerging reliability risks, the needs of stakeholders, and the public interest.*

⁴ The MRO Region covers the states of Iowa, Kansas, Nebraska, Minnesota, North Dakota, and Oklahoma; and portions of Arkansas, Illinois, Louisiana, Michigan, Missouri, Montana, New Mexico, South Dakota, Texas, and Wisconsin.

⁵ *Order Conditionally Approving Revised Pro Forma Delegation Agreement and Revised Delegation Agreements with Regional Entities*, 173 FERC ¶61,277 (December 2020).

⁶ 16 U.S.C. 824 o (e)(4)

⁷ The ERO Enterprise refers to NERC and the Regional Entities collectively.

⁸ MRO expands upon the ERO Enterprise mission statement *"To assure the effective and efficient reduction of risks to the reliability and security of the grid"* adding the concepts of identifying and prioritizing mitigation of risks and to include the High Reliability Organization (HRO) theory and principles, which MRO brands as "HERO." Although this is not explicitly included in the ERO Enterprise mission statement, NERC also promotes the HRO theory.

⁹ ERO Enterprise Long-Term Strategy as approved by the NERC Board of Trustees December 12, 2019.

¹⁰ MRO made three additions in keeping with the ERO Enterprise Core Principles: 1) the addition of accountability for clarity, assurance, and results; 2) an addition to articulate using funding wisely; and 3) a description of how to strive for operational excellence.

- **Independence**
 - *Be impartial, objective, fair, and intellectually honest.*
 - *Ensure governance practices that provide both regulatory independence and inclusion of stakeholder expertise to address reliability and security matters.*
- **Inclusiveness and Transparency**
 - *Create opportunities for stakeholder engagement.*
 - *Consider and balance the diverse interests of all stakeholders, including costs imposed to the consumer.*
 - *Leverage industry expertise and avoid unnecessary duplication.*
- **Innovation**
 - *Assess emerging risks and adapt to change.*
 - *Encourage new ideas and prioritize efforts that contribute to improving productivity and reliable operations.*
- **Excellence**
 - *Strive for operational excellence by being rigorous, accurate, and exacting.*
 - *Promote the active participation of the best technical experts.*
 - *Make informed decisions regarding efficient use and allocation of resources.*
- **Integrity**
 - *Maintain the highest levels of ethical conduct.*
 - *Maintain respectful relationships.*
 - *Protect the security of confidential information.*

Membership and Governance

MRO membership¹¹ consists of members and adjunct members. As of April 2021, MRO had 83 members, seven of which are non-voting, adjunct members. Each voting member organization belongs to one of seven industry sectors:

- Transmission System Operator
- Generator and/or Power Marketer
- Investor Owned Utility
- Cooperative
- Municipal Utility
- Federal Power Marketing Agency
- Canadian Utility

MRO's Board of Directors is a hybrid board consisting of a combination of independent and balanced stakeholder board members. The MRO Board consists of 17 stakeholder directors elected by members from the seven industry sectors, plus 4 independent directors and 2 regional directors elected by all members. Pursuant to MRO's Bylaws, no two industry sectors can control a vote. In addition, the board has adopted procedures to ensure it carries out its responsibilities free of conflicts of interest.

The board has three committees that provide functional oversight of MRO's operations:

- Finance and Audit Committee (FAC)
- Governance and Personnel Committee (GPC)
- Organizational Group Oversight Committee (OGOC)

¹¹ Membership is voluntary and provides members with voting rights. There is no fee for membership.

The board has established three advisory councils comprised of stakeholder members:

- Compliance Monitoring and Enforcement Program Advisory Council (CMEPAC)
- Reliability Advisory Council (RAC)
- Security Advisory Council (SAC)

The advisory councils are comprised of industry subject matter experts from MRO member companies tasked with identifying risks to the reliability and security of the regional bulk power system, developing mitigation strategies, and expanding outreach efforts to help registered entities become more aware of and reduce risk to their individual systems. In addition to producing educational material for the region in the form of newsletter articles and webinars, each of the advisory councils is responsible for one major outreach conference annually. The advisory councils also contribute to MRO's annual Regional Risk Assessment.

Each advisory council may have subgroups that it oversees. All organizational group charters are published on MRO's website. Board-approved *Policy and Procedure 3: Establishment, Responsibilities, and Procedures of Organizational Groups and MRO Sponsored Representatives on NERC Organizational Groups* sets out the processes for the organizational groups and MRO sponsored NERC Representatives. The three most active groups are the NERC Standards Review Forum (NSRF) which meets weekly to discuss ongoing NERC Standards projects, the Protective Relay Subgroup (PRS) which focuses on protection system misoperations and reviews power system events in the Region, and the Security Advisory Council Threat Forum (SACTF), which meets weekly in a trusted forum with E-ISAC staff to discuss timely threat information for the power industry. During 2020 and 2021, the SACTF conducted a second weekly call for MRO members to share best practices related to COVID-19 impacts on the reliable and secure operation of the BPS.

The advisory councils also work with MRO staff and the MRO Board's OGOC to interface with NERC technical committees to ensure awareness and avoid duplication of efforts. MRO sponsors staff from member companies to participate in NERC technical committee meetings that are focused on risks most material to the MRO region. MRO reimburses the travel cost for those sponsored representatives, and the representatives report back in to one of MRO's advisory councils. Each sponsored representative is also assigned an MRO staff member to assist with these efforts. MRO also reimburses travel costs associated with participation on these MRO organizational groups.

Business Plan and Budget Development

Each year, MRO prepares a Business Plan and Budget for the following calendar year. The Business Plan and Budget takes into account the ERO Enterprise Long-Term Strategy and the MRO Strategic Plan. MRO staff develops the Business Plan and Budget with board and stakeholder input. The Business Plan and Budget process is a coordinated effort with NERC and the other Regional Entities.

NERC and the Regional Entities implement revisions to the Statement of Activities (SOA) report from time-to-time to address compliance with changing accounting standards in accordance with GAAP. The report is also presented in a fashion that improves the effectiveness of the report to the reader and to provide a total budget amount that more closely reflects the amount of annual revenues required from assessments and other funding sources.

The draft Business Plan and Budget is reviewed by the MRO FAC and the board, and is subsequently posted for stakeholder comment. After consideration of stakeholder comments, but prior to obtaining final approval from its board of directors, MRO seeks NERC input. The MRO Board considers the final version of the Business Plan and Budget at its second quarter meeting, and upon approval, staff submits it to NERC for approval by NERC's Board of Trustees. Upon approval of NERC's Business Plan and Budget and all six Regional Entities' Business Plans and Budgets, a filing is submitted to FERC for approval, which is typically obtained in October or November of the year preceding the budget year.

Financial Policies and Controls

MRO adheres to internal financial controls and policies that govern its financial stewardship and guide its financial practices. MRO's board-approved policy and procedure 12: General Finance is used to guide prudent and sound judgement in managing the financial and physical resources of MRO.

In addition to its operating expenses, MRO's budget includes a cash reserve as specified in *Policy and Procedure 13: Reserves Policy*.

Accounting and Recordkeeping

MRO uses Generally Accepted Accounting Principles (GAAP) to consistently record its financial transactions, and uses a Chart of Accounts based on NERC's System of Accounts, as required in the Delegation Agreement. Additionally, MRO maintains an accounting manual to provide instructions to accounting staff on accounting transactions and functions. MRO maintains its books on an accrual basis with monthly closings, recognizing revenues when earned and expenses when incurred. The majority of MRO expenses are labor and benefit costs. General and Administrative costs are allocated to each MRO program area based on the number of full-time equivalents (FTEs) in each program area.

Organizational Structure and Staffing

MRO has five statutory departments, each of which is dedicated to one or more statutory functions or program areas, and five general and administrative departments. Each of the statutory departments also contribute to the Training and Education program, which provides outreach to MRO registered entities and stakeholders through MRO's newsletter and publications, workshops, webinars and conferences, as well as presentation opportunities at other industry events.

Statutory Programs and Departments

- The Reliability Standards Program is responsible for monitoring NERC Reliability Standards projects, supporting the NERC Standards Review Forum, coordinating SME teams as necessary, and providing MRO representation in the balloting of standards. The oversight of this program is performed under the Risk Assessment and Mitigation Department.
- The Compliance Monitoring Department encompasses MRO's oversight activities (including the development of Compliance Oversight Plans (COPs)) and conducts oversight activities such as audits, spot checks, and self-certifications. This department is managed by a director who reports to the Senior Vice President and Chief Operating Officer.
- MRO's Risk Assessment and Mitigation (RAM) Department is responsible for providing an independent review of all identified potential noncompliances in the MRO Region.

RAM assesses the risk that potential noncompliances pose to the Bulk Electric System (BES) and ensures that mitigation activities not only address the immediate issue, but also prevent recurrence. The RAM Department is managed by a director who reports to the Senior Vice President and Chief Operating Officer.

- The Enforcement Department is responsible for the disposition and enforcement of noncompliance with Reliability Standards and is managed by a director who reports to the Vice President, General Counsel and Corporate Secretary.
- The Reliability Analysis Department is responsible for reliability assessments, performance analysis, event analysis, situational awareness, and organization registration and certification. This department is managed by a director who reports to the Senior Vice President and Chief Operating Officer.
- The Security Department focuses on activities to promote identification, assessment, mitigation, and communication of cyber, physical, and operational security risks to the North American bulk power system. This department is managed by a director who reports to the Senior Vice President and Chief Operating Officer.

General and Administrative Departments

- The Information Technology (IT) Department is responsible for providing a secure network infrastructure and information technology systems that support the users. Systems include IT, cyber, and physical security. This department is managed by a director who reports to the Vice President and Engineer for Strategy, Innovation, and Finance.
- The Legal Department is responsible for providing advice to MRO on legal and regulatory matters. The department is led by the Vice President, General Counsel and Corporate Secretary who, along with the Assistant Corporate Secretary and Senior Counsel, provides legal advice to MRO. Internal and external MRO communications matters are also overseen by a director who reports to the Vice President, General Counsel and Corporate Secretary.
- The Human Resource Department performs all employee-related functions, including benefits administration, recruitment, retention, and talent management. This department includes a director who reports to the Vice President and Engineer for Strategy, Innovation, and Finance.
- The Finance and Accounting Department performs accounting, finance, budget, event planning, facilities management, and treasury functions and reports to the Vice President and Engineer for Strategy, Innovation, and Finance, who is also the Corporate Compliance Officer.
- The General and Administrative Department reports to MRO's President and CEO and performs normal administrative functions for the President and CEO and the Vice President, General Counsel and Corporate Secretary.

2022 Strategic Priorities

The MRO President and CEO has established three strategic priorities for MRO staff in 2022:

- *Execute* NERC delegated functions; and
- *Align* our efforts with others across the ERO Enterprise; and
- *Enhance* our focus on risk.

Execute NERC delegated functions. MRO will identify, prioritize, and ensure effective and efficient mitigation of risks to the reliability and security of the North American bulk power

system across our geographical footprint. MRO must continue to execute its delegated functions with a high degree of accuracy pursuant to its principles for all MRO registered entities, including Compliance Monitoring and Enforcement Program (CMEP) activities, event analysis, performance analysis, and reliability assessments.

Align our efforts with others across the ERO Enterprise. MRO will remain aligned with the ERO Enterprise and will continue to provide support to ERO Enterprise goals and the ERO Enterprise Long-Term Strategy. This alignment is critical to sustaining effective and efficient operations and producing optimal results.

Enhance our focus on risk. MRO will develop and deliver innovative and risk-based programs and tools. MRO will continue to deliver risk-based outreach and CMEP activities, as well as continue to mature its internal approach to identifying, prioritizing, and managing corporate risks.

2022 Key Strategic Goals and Supporting Activities

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a high reliable and secure North American bulk power system (BPS). Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness, and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. The Regional Entities have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions are completed. Both NERC and the Regional Entities have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and

- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.

Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.



ERO Enterprise Strategic and Operational Planning

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the **ERO Enterprise Long-Term Strategy** as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified BPS risks. This strategy, which was approved by the NERC Board of Trustees (Board) on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial **ERO Reliability Risk Priorities Report**;
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization's Business Plan and Budget may reference how activities support each of the strategic focus areas.

Since risks to reliability and security are fluid and can be impacted by recent events, NERC and each Regional Entity may also create annual work plan priorities that summarize the most critical goals and objectives for the year. In many cases, these work plan priorities are also used for individual, departmental, and company performance measurement.¹²

MRO supports the ERO Enterprise's Long-Term Strategy through the execution of MRO's strategic goals:

Goal 1: Risk-Responsive Reliability Standards

Goal 2: Objective, Risk Informed Entity Registration, Compliance Monitoring, Mitigation, and Enforcement

Goal 3: Reduction of Known Reliability Risks

Goal 4: Identification and Assessment of Emerging Reliability Risks

Goal 5: Identification and Reduction of Cyber and Physical Security Risks

Goal 6: Improving ERO Enterprise Efficiency and Effectiveness

MRO annually develops objectives and supporting activities in support of these strategic goals.

2022 Overview of Cost Impacts

In developing MRO's 2022 Business Plan and Budget (2022 BP&B), MRO used shared assumptions, in developing this 2022 BP&B. Prior to obtaining final approval from its board of directors, MRO seeks NERC input and review of its annual Regional Entity BP&B, including coordination of program requirements and any related key initiatives for the ERO Enterprise.

Overall, the MRO 2022 statutory expenses (\$20.0M) increased by 8.8 percent from the 2021 statutory expenses (\$18.4M). The 2022 statutory assessment (\$17.8M) represents a 5 percent increase from the 2021 assessment. A key factor of the assessment determination was the consideration towards the state of the economy within a pandemic environment. MRO proposes to use its reserves to manage the variance between the budgeted expenses and the assessments.

¹² The 2021 ERO Work Plan Priorities were approved by the Board in November 2020. NERC management and the Board evaluate annual work plan priorities throughout the year.

Other significant statutory expense changes (including capital expenditures) in the 2022 BP&B compared to its 2021 budget include:

- **Increase in FTEs.** MRO's personnel resources were evaluated for additional personnel needs. The evaluation determined a need for five additional staff to sustain and enhance strategic activities in the upcoming year. Based on actual headcount, two staff persons will be added to support administrative programs in the area of human resources and information technology. Three staff persons will be added to the operational programs to address CMEP and infrastructure security initiatives. Total FTEs increase from 66 to 71 in the 2022 BP&B. The allocation of FTEs are represented on page 14. An explanation of the FTE variances are included in the Resource Requirements section in each program area in Section A.
- **Increase in Salaries.** MRO completed a comprehensive review of all of its positions in 2019, to remain competitive with the job market. Current competitive salaries were increased by three percent.
- **Increase in Benefits.** MRO measured the average cost in its health premiums per employee based on premium cost assumptions, which are higher than budgeted in 2021. A proposed increase to FTEs also result in benefit costs being higher than in the 2021 budget. The per-employee cost is applied to each department based on FTEs.
- **Decrease in Meetings and Travel.**¹³ MRO will host the majority of its in-person educational events to support mitigation and outreach strategies for addressing identified risks at its Saint Paul office. There is one off-site workshop planned in the southern area of the MRO Region. Increased usage of virtual platforms for meetings and events aid in the reduction of travel. Historic cost trends and emerging trends in use of virtual technology were used to adjust travel cost estimates in 2022.
- **Increase in Consultant and Contract Support.** The majority of MRO's consultants and contracts are in IT and Compliance. These programs utilize additional technical support to maintain MRO's IT infrastructure and support newly implemented ERO-wide applications and tools.
- **Decrease in Office Rent.** Office rent is adjusted as a result of improved cost assumptions based on actual expenses.
- **Other Operating Expenses.** Other operating expenses are decreasing to reflect a reduction in the use of external support in some administrative service areas and reduced cost in office supplies.

¹³ The extent to which COVID-19 assumptions impact meetings and travel in 2022 is based on current trends in travel and use of virtual technology. Meetings and travel are not presumed to return to pre-COVID-19 levels in 2022.

Comparison of 2022 and 2021 Statutory Budgets

The following table and figure summarize and illustrate MRO’s 2022 BP&B by program area.

Base Operating Budget	Budget	Projection	Budget	Variance	
	2021	2021	2022	2022 Budget v 2021 Budget	Variance %
Reliability Standards	559,677	559,677	158,553	(401,124)	-71.7%
Compliance Enforcement	13,056,084	13,056,084	14,238,948	1,182,864	9.1%
Reliability Analysis and Organization Registration	3,193,130	3,193,130	3,692,737	499,607	15.6%
Training, Education and Operator Certification	857,332	857,332	858,992	1,660	0.2%
Situation Awareness and Infrastructure Security	745,980	745,980	1,085,132	339,152	45.5%
Total	18,412,202	18,412,202	20,034,361	1,622,159	8.8%

This table combines Compliance Monitoring, Risk Assessment and Mitigation, and Enforcement.

Table 2. Budget by Program Area

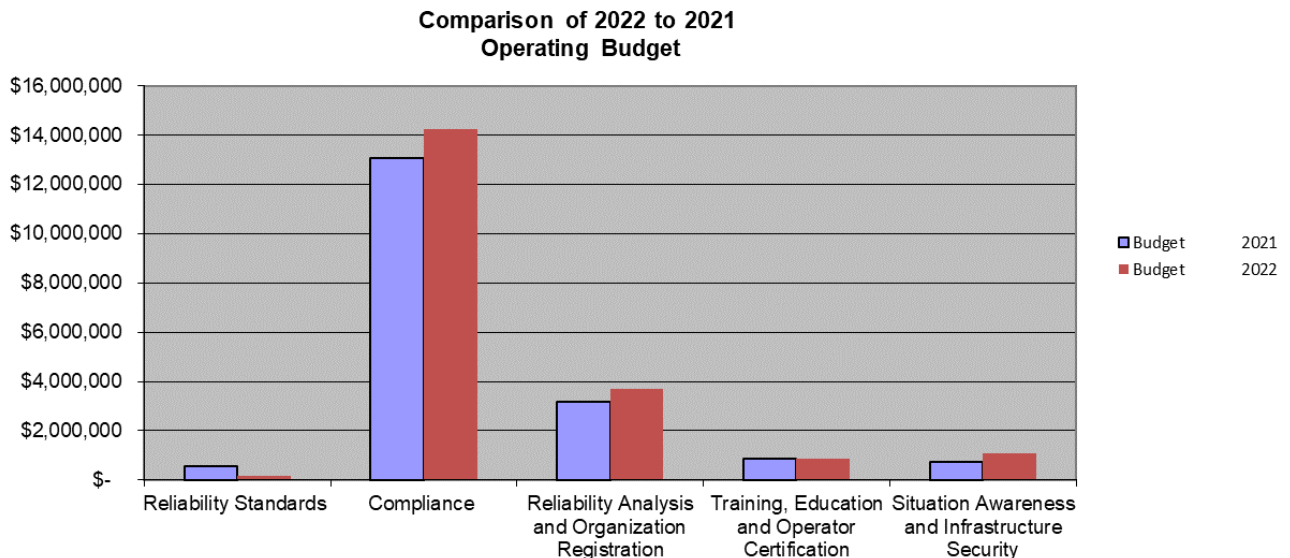


Figure 1. Budget by Program Area Chart

The following table displays total FTEs by program area.

Total FTEs by Program Area	Budget 2021	Budget 2022	Variance from 2021 Budget
STATUTORY			
Operational Programs			
Reliability Standards	1.50	0.45	(1.05)
Compliance	18.00	19.01	1.01
Compliance Risk Assessment and Mitigation	16.00	15.68	(0.32)
Compliance Enforcement	2.00	1.87	(0.13)
Training and Education	2.16	1.89	(0.27)
Reliability Analysis and Organization and Certification	8.34	9.13	0.79
Situation Awareness and Infrastructure Security	2.00	2.95	0.95
Total FTEs Operational Programs	50.00	50.98	0.98
Administrative Programs			
Technical Committees and Member Forums	-	-	-
General and Administrative	3.36	2.75	(0.61)
Legal	1.55	2.79	1.24
Information Technology	6.00	7.98	1.98
Human Resources	1.29	2.15	0.86
Finance and Accounting	3.80	4.35	0.55
Total FTEs Administrative Programs	16.00	20.02	4.02
Total FTEs	66.00	71.00	5.00

Table 3. Total FTEs by Program Area

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

2021 Budget and Projection and 2022 Budget Comparisons

The following table lists the 2021 budget and projection compared to the 2022 budget.

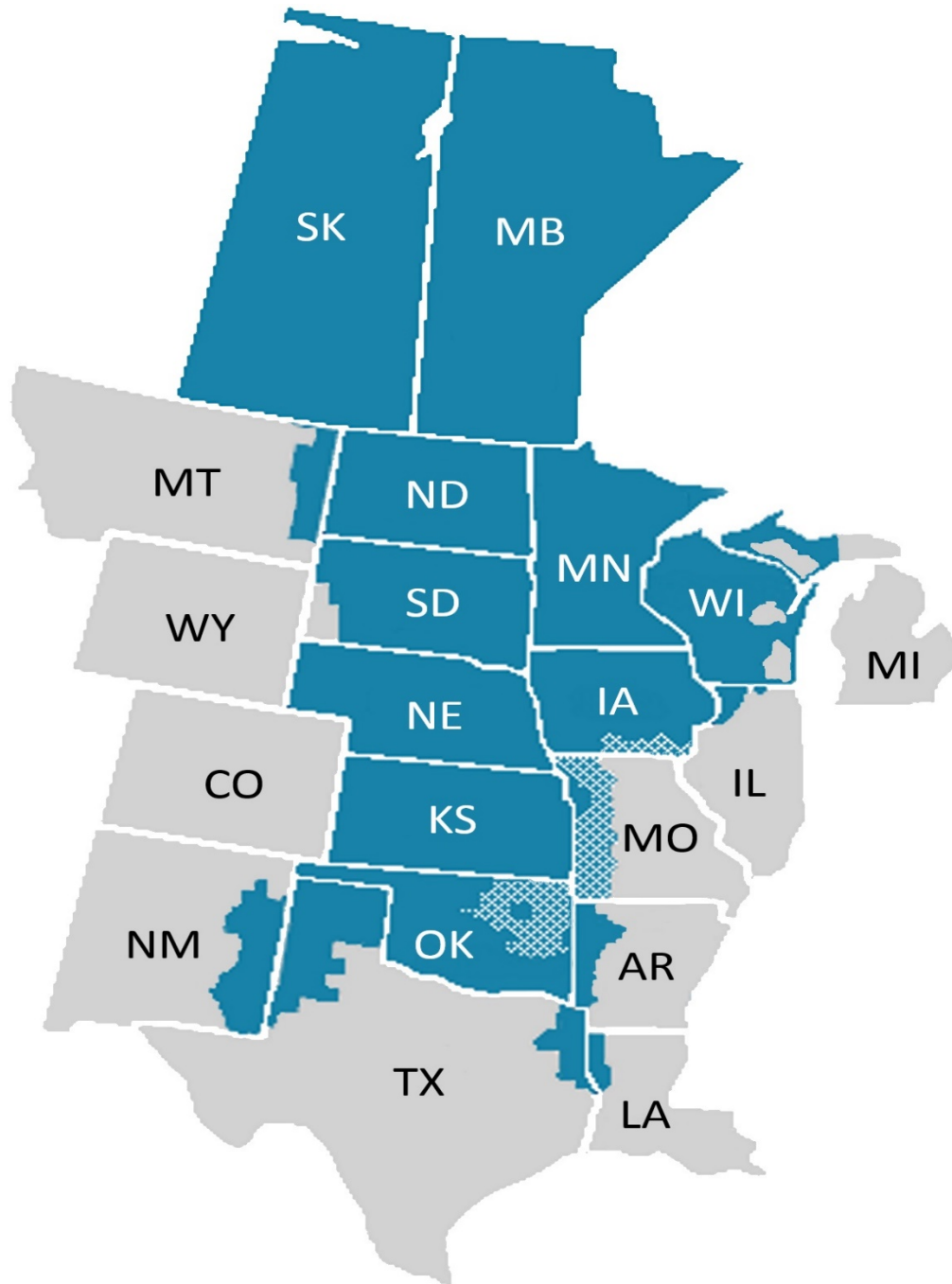
Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
STATUTORY					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 16,983,251	\$ 16,983,251	\$ -	\$ 17,832,414	\$ 849,162
Penalties Released*	360,504	360,504	-	458,250	97,746
Total Funding (A)	\$ 17,343,755	\$ 17,343,755	\$ -	\$ 18,290,664	\$ 946,908
Expenses					
Personnel Expenses					
Salaries	\$ 10,059,263	\$ 10,059,263	\$ -	\$ 11,416,562	\$ 1,357,299
Payroll Taxes	\$ 631,891	\$ 631,891	-	744,165	112,275
Benefits	\$ 1,064,375	\$ 1,064,375	-	1,193,996	129,621
Retirement Costs	\$ 1,528,209	\$ 1,528,209	-	1,922,258	394,048
Total Personnel Expenses	\$ 13,283,737	\$ 13,283,737	\$ -	\$ 15,276,980	\$ 1,993,243
Meeting Expenses					
Meetings & Conference Calls	\$ 204,900	\$ 204,900	\$ -	\$ 178,877	\$ (26,023)
Travel	\$ 739,967	\$ 739,967	-	581,670	(158,297)
Total Meeting Expenses	\$ 944,867	\$ 944,867	\$ -	\$ 760,547	\$ (184,320)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 1,339,701	\$ 1,339,701	\$ -	\$ 1,204,800	\$ (134,901)
Office Rent	\$ 1,168,700	\$ 1,168,700	-	1,132,100	(36,600)
Office Costs	\$ 905,697	\$ 905,697	-	967,934	62,237
Professional Services	\$ 519,500	\$ 519,500	-	567,000	47,500
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 3,933,598	\$ 3,933,598	\$ -	\$ 3,871,834	\$ (61,764)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 18,162,202	\$ 18,162,202	\$ -	\$ 19,909,361	\$ 1,747,159
Change in Net Assets (=A - B)	\$ (818,447)	\$ (818,447)	\$ -	\$ (1,618,698)	\$ (800,251)
Fixed Asset Additions, excluding Right of Use Assets (C)	250,000	250,000	-	125,000	(125,000)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 18,412,202	\$ 18,412,202	\$ -	\$ 20,034,361	\$ 1,622,159
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ (1,068,447)	\$ (1,068,447)	\$ -	\$ (1,743,698)	\$ (675,251)
FTEs	66.00	66.00	-	71.00	5.00

Table 4. 2021 Budget and Projection and 2022 Comparisons¹⁴

¹⁴ *Penalties released in the current year reflects the designated amount of funds released from the Assessment Stabilization Reserve (ASR) to offset U.S. assessments as approved by the NERC Board of Trustees and FERC. Actual penalties invoiced in the current reporting year are shown as an increase in the ASR on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

Section A – Statutory Programs

2022 Business Plan and Budget



Section A – Statutory Programs

Reliability Standards Program

The following table shows funding sources and related expenses for the Reliability Standards Program.

Reliability Standards Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.50	0.45	(1.05)
Direct Expenses	\$ 344,886	\$ 88,447	\$ (256,439)
Indirect Expenses	\$ 207,291	\$ 69,003	\$ (138,288)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 7,500	\$ 1,103	\$ (6,397)
Total Funding Requirement	\$ 559,677	\$ 158,553	\$ (401,125)

Table A-1. Reliability Standards Budget

Reliability Standards

Program Scope and Functional Description

MRO's efforts related to NERC Reliability Standards support NERC's stakeholder-driven processes to develop and maintain risk-responsive Reliability Standards by providing feedback into the standards process, conducting outreach during standards development, and providing clarity to industry on enforceable standards and requirements. MRO's CMEPAC and its subgroups develop Standard Application Guides (SAGs), comment on NERC Standard Authorization Requests, and participate in standards development.

MRO's Reliability Standards Program activities support the ERO Enterprise Long-Term Strategy through the execution of MRO's Strategic Goal 1.

Goal 1: Risk-Responsive Reliability Standards

Reliability Standards establish threshold requirements for ensuring the BES is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of the BPS. Reliability Standards are clear, timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.

Impact on Resource Needs

Workload and travel for Reliability Standards staff will stabilize as staff conducts the supporting activities for Goal 1. Member travel will decrease as virtual conferences and meetings become more common.

Impact on Resource Needs

Workload for Organizational Registration and Certification is stable in 2022. MRO anticipates two certification reviews in 2022.

Reliability Standards Program Resource Requirements

Overall Budget Change 2022 vs 2021 (Decrease \$400K, 71.7%)

Overall, activities in this area have decreased leading to a budget reduction in 2022. Subject matter expert teams that develop SAGs were moved under the CMEPAC, and member travel reimbursement costs for outreach support in this area is reduced for 2022.

The budget for this function had received increases in prior years to meet demands for NERC-led Review Panels and the development of a new registration tool. Completion of those initiatives has reduced the need for resources in this program.

Personnel Expenses (Decrease \$231K, 74.2%)

The average salary increase was budgeted at 3 percent. However, MRO shifted staff resources to meet priorities in other program areas. This resulted in lower allocation of labor hours to this program.

Meeting Expenses (Decrease \$18.5K, 70.1%)

There is an overall travel expense decrease for staff travel. Travel dollars for participation on ERO working groups, the Align project, and member travel for organizational group face-to-face meetings trended very low in prior years. It is anticipated that these costs will further decrease due to increased use of virtual technology.

Indirect Expenses (Decrease \$138K, 66.7%)

There is an overall decrease in administrative services expenditures that are allocated to the operational programs based on the program's FTEs. The allocation of indirect costs is lower due to the reduced FTE in this program.

Reliability Standards Budget Details

The following table shows funding sources and related expenses for the Reliability Standards Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
STANDARDS					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 548,862	\$ 548,862	\$ -	\$ 154,508	\$ (394,353)
Penalties Released	10,815	10,815	-	4,045	(6,770)
Total Funding (A)	\$ 559,677	\$ 559,677	-	\$ 158,553	\$ (401,124)
Expenses					
Personnel Expenses					
Salaries	\$ 233,737	\$ 233,737	\$ -	\$ 58,474	\$ (175,262)
Payroll Taxes	14,862	14,862	-	3,914	(10,947)
Benefits	26,129	26,129	-	7,319	(18,811)
Retirement Costs	37,175	37,175	-	10,839	(26,336)
Total Personnel Expenses	\$ 311,903	\$ 311,903	\$ -	\$ 80,547	\$ (231,356)
Meeting Expenses					
Meetings	\$ 1,400	\$ 1,400	\$ -	\$ 1,400	\$ -
Travel	25,000	25,000	-	6,500	(18,500)
Total Meeting Expenses	\$ 26,400	\$ 26,400	\$ -	\$ 7,900	\$ (18,500)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	6,583	6,583	-	-	(6,583)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 6,583	\$ 6,583	\$ -	\$ -	\$ (6,583)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ 207,291	\$ 207,291	\$ -	\$ 69,003	\$ (138,288)
Total Expenses (B)	\$ 552,177	\$ 552,177	\$ -	\$ 157,450	\$ (394,727)
Change in Net Assets (=A - B)	\$ 7,500	\$ 7,500	\$ -	\$ 1,103	\$ (6,397)
Fixed Asset Additions, excluding Right of Use Assets (C)	7,500	7,500	-	1,103	(6,397)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 559,677	\$ 559,677	\$ -	\$ 158,553	\$ (401,124)
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	1.50	1.50	-	0.45	(1.05)

Table A-2. Reliability Standards Budget Detail

Compliance Monitoring and Enforcement Program

The following table lists the budget for the Compliance Monitoring and Enforcement Program (CMEP).

Compliance Monitoring and Enforcement Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	36.00	36.56	0.56
Direct Expenses	\$ 7,901,109	\$ 8,543,197	\$ 642,089
Indirect Expenses	\$ 4,974,975	\$ 5,606,108	\$ 631,133
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 180,000	\$ 89,643	\$ (90,357)
Total Funding Requirement	\$ 13,056,084	\$ 14,238,948	\$ 1,182,865

Table A-3. Compliance Monitoring and Enforcement Program Budget

Program Scope and Functional Description

MRO's CMEP work is performed by three departments: Compliance Monitoring, Risk Assessment and Mitigation (RAM), and Enforcement, creating an effective "check and balance" for making decisions about noncompliance and enforcement. MRO's RAM Department develops Inherent Risk Assessments (IRAs) for registered entities; Compliance Monitoring uses the IRA along with entity performance, internal controls, and other qualitative assessments to develop Compliance Oversight Plans (COPs) and conduct compliance monitoring for registered entities. In addition, RAM conducts risk assessments for registered entity noncompliances and violations, and evaluates and monitors mitigation efforts and processes and submits Compliance Exception notifications. Enforcement processes noncompliances and violations using risk-based disposition methods, including any penalty determinations.

MRO staff will perform CMEP activities for approximately 220 registered entities in 2022. The Compliance Monitoring Department will conduct approximately 20 audits in 2022. MRO will also contribute to audits, as needed, for entities that participate in coordinated oversight where MRO is the Affected Regional Entity. The Enforcement Department will review registered entity participation in the Self-Logging Program. The CMEP also supports the MRO CMEPAC and ERO Enterprise CMEP activities.

MRO's Compliance Monitoring, RAM, and Enforcement departments support ERO Enterprise efforts to appropriately monitor and enforce compliance as outlined in the ERO Enterprise Long-Term Strategy through the execution of MRO's Strategic Goals 1-4.

Goal 1: Risk-Responsive Reliability Standards

Reliability Standards establish threshold requirements for ensuring the BES is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of the BPS. Reliability Standards are clear, timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.

Goal 2: Objective, Risk-Informed Entity Registration, Compliance Monitoring, Mitigation, and Enforcement

The ERO Enterprise is a strong enforcement authority that is objective, fair, and promotes a culture of reliability excellence through risk-informed compliance monitoring, mitigation, enforcement, and registration.

Goal 3: Reduction of Known Reliability Risks

The ERO Enterprise recognizes significant known risks to reliability, assures those reliability risks are reduced, and promotes a culture of reliability excellence.

Goal 4: Identification and Assessment of Emerging Reliability Risks

The ERO Enterprise identifies, objectively assesses, and prioritizes emerging risks to reliability to inform stakeholders and enable effective actions to reduce these risks to reliability.

Impact on Resource Needs

Staffing for these departments will increase in 2022, with one-half FTE added in Compliance Monitoring. In addition to regular oversight work, the CMEP departments will dedicate resources to support the development and implementation of the ERO Enterprise Align Project and the ERO Secure Evidence Locker, which are shared technology platforms that provide consistency and alignment of CMEP processes across NERC and the Regional Entities. The department's proposed resource additions will further the development of the Aggregated Risk program. This program will utilize Self-Certifications to monitor the risks associated with standards that have an increased likelihood of common mode failures across multiple organizations. The combination of the Aggregated Risk program and the CMEP Implementation Plan is leading to an increased use of Self-Certifications as a monitoring method. These initiatives effectively focus on assessment and mitigation of reliability and security risk to the bulk power system involving lower risk registered entities in aggregate.

Compliance Monitoring and Enforcement Program Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$1.2M, 9.1%)

The budget increase for 2022 is due to the increase in FTEs to this program and the increase in indirect expense.

Personnel Expenses (Increase \$821K, 11.8%)

The average salary increase was budgeted at 3 percent. One-half additional FTE will be added to this program. Benefits increased due to projected increase in medical premium costs.

Meeting Expenses (Increase \$19K, 8.8%)

There is an overall travel expense increase for both staff travel and member reimbursement. This increase is primarily attributed to the expectation that on-site audits will last longer due to the ERO Enterprise's increased focus on internal controls during monitoring activities, as well as additional FTEs that will also travel. It is anticipated that the state of travel with regard to compliance monitoring will recover as the restrictions in place during the global pandemic lessen.

Indirect Expenses (Increase \$631K, 12.7%)

There is an overall increase in administrative services that are allocated to the operational programs based on the FTEs.

Compliance Monitoring and Enforcement Program Budget Detail

The following table shows funding sources and related expenses for the CMEP.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
COMPLIANCE MONITORING AND ENFORCEMENT PROGRAM					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 12,796,521	\$ 12,796,521		\$ 13,910,317	\$ 1,113,795
Penalties Released	259,563	259,563		328,631	69,068
Total Funding (A)	\$ 13,056,084	\$ 13,056,084		\$ 14,238,948	\$ 1,182,864
Expenses					
Personnel Expenses					
Salaries	\$ 5,282,183	\$ 5,282,183	\$ -	\$ 5,792,149	\$ 509,966
Payroll Taxes	340,856	340,856	-	399,863	59,006
Benefits	557,406	557,406	-	613,759	56,353
Retirement Costs	791,450	791,450	-	987,129	195,679
Total Personnel Expenses	\$ 6,971,895	\$ 6,971,895	\$ -	\$ 7,792,900	\$ 821,005
Meeting Expenses					
Meetings	\$ 10,500	\$ 10,500	\$ -	\$ 11,500	\$ 1,000
Travel	206,300	206,300	-	224,470	18,170
Total Meeting Expenses	\$ 216,800	\$ 216,800	\$ -	\$ 235,970	\$ 19,170
Operating Expenses					
Consultants & Contracts	\$ 583,394	\$ 583,394	\$ -	\$ 383,382	\$ (200,012)
Office Rent	-	-	-	-	-
Office Costs	129,020	129,020	-	130,945	1,925
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 712,414	\$ 712,414	\$ -	\$ 514,327	\$ (198,087)
Other Non-Operating Expenses					
	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses					
	\$ 4,974,975	\$ 4,974,975	\$ -	\$ 5,606,108	\$ 631,133
Total Expenses (B)	\$ 12,876,084	\$ 12,876,084	\$ -	\$ 14,149,305	\$ 1,273,221
Change in Net Assets (=A - B)	\$ 180,000	\$ 180,000	\$ -	\$ 89,643	\$ (90,357)
Fixed Asset Additions, excluding Right of Use Assets (C)					
	\$ 180,000	180,000	-	89,643	(90,357)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 13,056,084	\$ 13,056,084	\$ -	\$ 14,238,948	\$ 1,182,864
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	36.00	36.00	-	36.56	0.56

Table A-4. Compliance Monitoring and Enforcement Program Budget Detail

Reliability Analysis and Organization Registration and Certification Program

The following table lists the budget for the Reliability Analysis program.

Reliability Analysis and Organization Registration and Certification (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	8.34	9.13	0.79
Direct Expenses	\$ 1,998,894	\$ 2,270,357	\$ 271,463
Indirect Expenses	\$ 1,152,536	\$ 1,399,994	\$ 247,458
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 41,700	\$ 22,386	\$ (19,314)
Total Funding Requirement	\$ 3,193,130	\$ 3,692,737	\$ 499,606

Table A-5. Reliability Analysis Department Budget

Program Scope and Functional Description

MRO's Reliability Analysis Department performs Reliability Assessments, Performance Analysis, and Event Analysis. NERC's Reliability Assessment Program includes reviewing, assessing and reporting on the adequacy and operating reliability of the interconnected bulk power system, both existing and planned. The Event Analysis Program includes analysis of large-scale outages, disturbances, and near misses to determine root causes and lessons learned. Performance Analysis involves reviewing quarterly data submissions to assess the performance and availability of electric generation equipment, electric transmission equipment, and reliable system operations through Transmission Availability Data Systems (TADS), Generating Availability Data Systems (GADS), Demand Response Availability Data Systems (DADS), and Misoperation Information Data Analysis Systems (MIDAS). This information may indicate the need to develop and implement targeted interventions. Reliability Analysis staff participate in the Eastern Interconnection Reliability Assessment Group (ERAG); this group facilitates data collection and the development of power flow and dynamics simulation models for the Eastern Interconnection. Reliability Analysis also supports the MRO RAC and ERO Enterprise RAPA activities.

In 2021, the department's responsibilities expanded to include Organization Registration and Certification. This involves appropriately registering owners, operators and users of the bulk power system. The Reliability Analysis Department ensures that organizations that apply for registration to perform the Reliability Coordinator, Balancing Authority, and Transmission Operator reliability functions meet or exceed minimum criteria demonstrating the capability to perform the incumbent tasks.

MRO's Reliability Analysis Department supports ERO Enterprise efforts to identify, provide insight into, and develop guidance for potential reliability risks to the BES as outlined in the ERO Enterprise Long-Term Strategy through the execution of MRO's strategic goals 3 and 4:

Goal 3: Reduction of Known Reliability Risks

The ERO Enterprise recognizes significant known risks to reliability, assures those reliability risks are reduced, and promotes a culture of reliability excellence.

Goal 4: Identification and Assessment of Emerging Reliability Risks

The ERO Enterprise identifies, objectively assesses, and prioritizes emerging risks to reliability to inform stakeholders and enable effective actions to reduce these risks to reliability.

Impact on Resource Needs

Staffing for this program will increase by an FTE of 0.79 due to a shift of resources and activity for the certification/registration of MRO entities.

Reliability Analysis Organization Registration and Certification Resource Requirements**Overall Budget Change 2022 vs 2021 (Increase \$500K, 15.6%)**

The budget increase for 2022 is higher due to adding registration/certification activity in this program and an indirect expense increase.

Personnel Expenses (Increase \$310K, 17.9%)

The average salary increase was budgeted at 3 percent. Staff resources in this area increased as functional activities were expanded. Benefits increased due to projected increase in medical premium costs.

Meeting Expenses (Decrease \$32K, 19.2%)

There is an overall travel expense decrease for both staff travel and member reimbursement. Travel dollars for participation on ERO working groups, member travel for organizational group and MRO-sponsored NERC organizational group face-to-face meetings trended very low in prior years. It is anticipated that these costs will not be as high as budgeted in prior years and thus costs are budgeted much lower in 2022. The increased use of virtual technology is also a factor for the decrease in costs.

Operating Costs (Decrease \$6K, 5.9%)

Reflects flat costs in training and slightly lower contract costs.

Indirect Expenses (Increase \$247K, 21.5%)

There is an overall increase in administrative services expenditures that are allocated to the operational programs based on the FTEs.

Reliability Analysis and Organization Registration and Certification Budget Detail

The following table lists funding sources and related expenses for the Reliability Analysis and Organization Registration and Certification Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
RELIABILITY ANALYSIS and ORGANIZATION REGISTRATION and CERTIFICATION					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 3,132,998	\$ 3,132,998		\$ 3,610,669	\$ 477,671
Penalties Released	60,132	60,132		82,068	21,936
Total Funding (A)	\$ 3,193,130	\$ 3,193,130		\$ 3,692,737	\$ 499,607
Expenses					
Personnel Expenses					
Salaries	\$ 1,303,637	\$ 1,303,637	\$ -	\$ 1,528,561	\$ 224,924
Payroll Taxes	86,380	86,380	-	100,217	13,838
Benefits	136,669	136,669	-	154,429	17,760
Retirement Costs	201,108	201,108	-	254,449	53,341
Total Personnel Expenses	\$ 1,727,794	\$ 1,727,794	\$ -	\$ 2,037,657	\$ 309,863
Meeting Expenses					
Meetings	\$ 9,000	\$ 9,000	\$ -	\$ 9,000	\$ -
Travel	160,000	160,000	-	127,600	(32,400)
Total Meeting Expenses	\$ 169,000	\$ 169,000	\$ -	\$ 136,600	\$ (32,400)
Operating Expenses					
Consultants & Contracts	\$ 71,100	\$ 71,100	\$ -	\$ 71,100	\$ -
Office Rent	-	-	-	-	-
Office Costs	31,000	31,000	-	25,000	(6,000)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 102,100	\$ 102,100	\$ -	\$ 96,100	\$ (6,000)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ 1,152,536	\$ 1,152,536	\$ -	\$ 1,399,994	\$ 247,458
Total Expenses (B)	\$ 3,151,430	\$ 3,151,430	\$ -	\$ 3,670,351	\$ 518,921
Change in Net Assets (=A - B)	\$ 41,700	\$ 41,700	\$ -	\$ 22,386	\$ (19,314)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 41,700	41,700	-	22,386	(19,314)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 3,193,130	\$ 3,193,130	\$ -	\$ 3,692,737	\$ 499,607
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	8.34	8.34	-	9.13	0.79

Table A-6. Reliability Analysis and Organization Registration and Certification Budget Detail

Training and Education Program

The following table summarizes the budget for the Training and Education program.

Training and Education (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.16	1.89	(0.27)
Direct Expenses	\$ 548,033	\$ 564,545	\$ 16,511
Indirect Expenses	\$ 298,499	\$ 289,812	\$ (8,686)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 10,800	\$ 4,634	\$ (6,166)
Total Funding Requirement	\$ 857,333	\$ 858,992	\$ 1,660

Table A-7. Training and Education Budget

Program Scope and Functional Description

MRO is committed to its mission “to identify, prioritize and assure effective and efficient mitigation of risks to the reliability and security of the North American bulk power system by promoting Highly Effective Reliability Organizations® (HEROs).” One way we do this is by providing training and education to industry on the implementation of the CMEP, the application of Reliability Standards, reviewing reliability assessments, performing quality event analysis, identifying lessons learned from event analysis, and other related information to system reliability, security, and compliance. The Training and Education Program provides outreach to MRO registered entities through MRO’s newsletter and other publications, workshops, webinars and conferences, as well as presentation opportunities at other industry events. The emphasis on Critical Infrastructure Protection and security over the last several years will continue in 2022. MRO and its advisory councils continually seek ways to share information, best practices, and lessons learned across the regional footprint.

MRO’s Training and Education Program assists ERO Enterprise efforts to keep entity personnel trained and industry participants informed, and supports the ERO Enterprise Long Term Strategy through execution of MRO’s strategic goals 3, 4 and 5:

Goal 3: Reduction of Known Reliability Risks

The ERO Enterprise recognizes significant known risks to reliability, assures those reliability risks are reduced, and promotes a culture of reliability excellence.

Goal 4: Identification and Assessment of Emerging Reliability Risks

The ERO Enterprise identifies, objectively assesses, and prioritizes emerging risks to reliability to inform stakeholders and enable effective actions to reduce these risks to reliability.

Goal 5: Identification and Reduction of Cyber and Physical Security Risks

The ERO Enterprise identifies and evaluates cyber and physical security risks to the BPS and assures those risks are reduced through active stakeholder engagement and information sharing of current threats and vulnerabilities, security workshops, and development of good industry practice guides. The ERO Enterprise supports the Electricity Information Sharing and Analysis Center (E-ISAC), the CRISP, technical protective programs, and physical and

cybersecurity preparedness exercises, and engages with government partners to de-classify sensitive security information needed to protect BPS devices and assets. The ERO Enterprise works with stakeholders to develop and share information to foster BPS resiliency in connection with both traditional and emerging risks.

Impact on Resource Needs

Training, education, and outreach by staff are being supplemented with webinar and virtual courses, resulting in a decrease in meeting expenses. A conference in the southern region of the MRO footprint results in an increase to travel expense.

Training and Education Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$1.7K, 0.2%)

Personnel Expenses (Increase \$35K, 9%)

The average salary increase was budgeted at 3 percent. Executive staff resources increased to meet training, education, and outreach initiatives using webinar and virtual courses. This resulted in slightly higher salary costs.

Meeting Expenses (Decrease \$18.6K, 11.7%)

There is an overall meeting expense decrease due to use of webinars and virtual meetings that offsets an increase in both staff and member travel for a planned off-site conference.

Indirect Expenses (Decrease \$8.7K, 2.9%)

There is an overall decrease in administrative services expenditures that are allocated to the operational programs based on the FTEs. The decrease is reflective of a lower FTE in this program.

Training and Education Budget Detail

The following table shows funding sources and related expenses for the Training and Education Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
TRAINING and EDUCATION					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 841,758	\$ 841,758		\$ 842,003	\$ 244
Penalties Released	15,574	15,574		16,989	1,415
Total Funding (A)	\$ 857,332	\$ 857,332		\$ 858,992	\$ 1,660
Expenses					
Personnel Expenses					
Salaries	\$ 290,379	\$ 290,379	\$ -	\$ 319,838	\$ 29,459
Payroll Taxes	18,898	18,898	-	20,073	1,175
Benefits	33,080	33,080	-	31,529	(1,552)
Retirement Costs	46,609	46,609	-	52,605	5,996
Total Personnel Expenses	\$ 388,967	\$ 388,967	\$ -	\$ 424,045	\$ 35,078
Meeting Expenses					
Meetings	\$ 120,000	\$ 120,000	\$ -	\$ 90,000	\$ (30,000)
Travel	39,067	39,067	-	50,500	11,433
Total Meeting Expenses	\$ 159,067	\$ 159,067	\$ -	\$ 140,500	\$ (18,567)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ 298,499	\$ 298,499	\$ -	\$ 289,812	\$ (8,686)
Total Expenses (B)	\$ 846,532	\$ 846,532	\$ -	\$ 854,357	\$ 7,825
Change in Net Assets (=A - B)	\$ 10,800	\$ 10,800	\$ -	\$ 4,634	\$ (6,166)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 10,800	10,800	-	4,634	(6,166)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 857,332	\$ 857,332	\$ -	\$ 858,992	\$ 1,660
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ (0)
FTEs	2.16	2.16	-	1.89	(0.27)

Table A-8. Training and Education Budget Detail

Situation Awareness and Infrastructure Security Program

The following table lists the budget for Situation Awareness and Infrastructure Security.

Situation Awareness and Infrastructure Security (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.00	2.95	0.95
Direct Expenses	\$ 459,593	\$ 625,546	\$ 165,953
Indirect Expenses	\$ 276,388	\$ 452,353	\$ 175,965
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 10,000	\$ 7,233	\$ (2,767)
Total Funding Requirement	\$ 745,980	\$ 1,085,132	\$ 339,152

Table A-9. Situation Awareness and Infrastructure Security Budget

Program Scope and Functional Description

MRO, through the regional Reliability Coordinators and other available tools, monitors present conditions on the BES and provides leadership coordination, technical expertise, and assistance to industry and governmental partners in responding to events as necessary. The department also uses data obtained from NERC Alerts to determine which entities may be more susceptible to a specific risk based on the responses. The Security Department, sponsors the Security Advisory Council (SAC) and the SAC Threat Forum (SACTF). These organizational groups address Cyber, Physical, and Operational risks to the BES through training, outreach, intelligence briefings, risk assessments, weekly threat calls, and sponsor a large annual security conference that draws over 400 attendees. The department also maintains strong connections with the E-ISAC and other agencies to further increase the reliability and security of the BES.

This program supports the ERO Enterprise vision of a highly reliable and secure North American bulk power system and efforts to communicate risks to reliability, and supports ERO Enterprise efforts related to the ERO Enterprise Long-Term Strategy through execution of MRO's strategic goals 1, 3 and 5:

Goal 1: Risk-Responsive Reliability Standards

Reliability Standards establish threshold requirements for ensuring the BES is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of the BPS. Reliability Standards are clear, timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.

Goal 3: Reduction of Known Reliability Risks

The ERO Enterprise recognizes significant known risks to reliability, assures those reliability risks are reduced, and promotes a culture of reliability excellence.

Goal 5: Identification and Reduction of Cyber and Physical Security Risks

The ERO Enterprise identifies and evaluates cyber and physical security risks to the BPS and assures those risks are reduced through active stakeholder engagement and information sharing of current threats and vulnerabilities, security workshops, and development of good industry practice guides. The ERO Enterprise supports the Electricity Information Sharing and Analysis Center (E-ISAC), the CRISP, technical protective programs, and physical and cybersecurity preparedness exercises, and engages with government partners to de-classify sensitive security information needed to protect BPS devices and assets. The ERO Enterprise works with stakeholders to develop and share information to foster BPS resiliency in connection with both traditional and emerging risks.

Impact on Resource Needs

The Situational Awareness Program will work with stakeholders to identify significant known risks to reliability, mitigate those risks, and promote a culture of reliability excellence. The workload in this area is stable.

The Infrastructure Security Program will focus on activities to promote identification, assessment, mitigation, and communication of cyber, physical, and operational risks to the reliability and security of the North American bulk power system. There is increased activity in this area and an increase in dedicated staff resources.

Situation Awareness and Infrastructure Security Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$339K, 45.5%)

The budget for this area will increase to realign and dedicate MRO staffing to support increased focus on security.

Personnel Expenses (Increase \$201K, 53.2%)

The average salary increase was budgeted at 3 percent. However, MRO added an FTE to focus on work related to detection and mitigation of cyber security risks. Also, benefits increased due to projected increase in medical premium costs.

Meeting Expenses (Decrease \$30.6K, 46.8%)

There is an overall travel expense decrease for both staff travel and member reimbursement. Travel dollars for participation on ERO working groups, NERC stakeholder committees, and member travel for organizational group and MRO-sponsored NERC organizational group face-to-face meetings trended very low in prior years. It is anticipated that these costs will not be as high as budgeted in prior years and thus costs are budgeted much lower in 2022. The increased use of virtual technology is also a factor for decrease in costs.

Indirect Expenses (Increase \$176K, 63.7%)

There is an overall increase in administrative services expenditures that are allocated to the operational programs based on the FTEs.

Situation Awareness and Infrastructure Security Budget Detail

The following table shows funding sources and related expenses for the Situation Awareness and Infrastructure Security Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
SITUATION AWARENESS and INFRASTRUCTURE SECURITY					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 731,560	\$ 731,560	\$ -	\$ 1,058,615	\$ 327,055
Penalties Released	14,420	14,420		26,517	12,097
Total Funding (A)	\$ 745,980	\$ 745,980		\$ 1,085,132	\$ 339,152
Expenses					
Personnel Expenses					
Salaries	\$ 279,803	\$ 279,803	\$ -	\$ 426,796	\$ 146,994
Payroll Taxes	17,455	17,455	-	28,902	11,447
Benefits	34,037	34,037	-	48,790	14,753
Retirement Costs	46,398	46,398	-	74,320	27,923
Total Personnel Expenses	\$ 377,693	\$ 377,693	\$ -	\$ 578,809	\$ 201,116
Meeting Expenses					
Meetings	\$ 2,000	\$ 2,000	\$ -	\$ 4,277	\$ 2,277
Travel	63,400	63,400	-	30,500	(32,900)
Total Meeting Expenses	\$ 65,400	\$ 65,400	\$ -	\$ 34,777	\$ (30,623)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	16,500	16,500	-	11,960	(4,540)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 16,500	\$ 16,500	\$ -	\$ 11,960	\$ (4,540)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ 276,388	\$ 276,388	\$ -	\$ 452,353	\$ 175,965
Total Expenses (B)	\$ 735,980	\$ 735,980	\$ -	\$ 1,077,899	\$ 341,919
Change in Net Assets (=A - B)	\$ 10,000	\$ 10,000	\$ -	\$ 7,233	\$ (2,767)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 10,000	10,000	-	7,233	(2,767)
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 745,980	\$ 745,980	\$ -	\$ 1,085,132	\$ 339,152
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	
FTEs	2.00	2.00	-	2.95	0.95

Table A-10. Situation Awareness and Infrastructure Security Budget Detail

Administrative Services

The following table outlines the budget for Administrative Services.

Administrative Services (in whole dollars)						
	Direct Expenses and Fixed Assets			FTEs		
	2021 Budget	2022 Budget	Increase (Decrease)	2021 Budget	2022 Budget	Increase (Decrease)
General and Administrative	\$1,481,685	\$1,862,449	\$380,764	3.36	2.75	(0.61)
Legal	\$834,634	\$976,919	\$142,285	1.55	2.79	1.24
Information Technology	\$2,198,094	\$2,298,664	\$100,570	6.00	7.98	1.98
Human Resources	\$431,072	\$474,285	\$43,213	1.29	2.15	0.86
Finance and Accounting	\$2,214,201	\$2,329,953	\$115,752	3.80	4.35	0.55
Total Administrative Services	\$7,159,688	\$7,942,270	\$782,583	16.00	20.02	4.02

Table A-11. Administrative Services Budget

Program Scope and Functional Description

MRO's Administrative Services area includes the business and administrative functions of the organization, including legal and regulatory, communications, information technology, human resources, finance and accounting, and general expenses. Costs incurred for these services are allocated as an indirect expense across MRO's other program areas.

MRO's Administrative Services function supports ERO Enterprise efforts to be effective and efficient as outlined in the ERO Enterprise Long-Term Strategy through the execution of MRO's strategic goal 5 and 6:

Goal 5: Identification and Reduction of Cyber and Physical Security Risks

The ERO Enterprise identifies and evaluates cyber and physical security risks to the BPS and assures those risks are reduced through active stakeholder engagement and information sharing of current threats and vulnerabilities, security workshops, and development of good industry practice guides. The ERO Enterprise supports the Electricity Information Sharing and Analysis Center (E-ISAC), the CRISP, technical protective programs, and physical and cybersecurity preparedness exercises, and engages with government partners to de-classify sensitive security information needed to protect BPS devices and assets. The ERO Enterprise works with stakeholders to develop and share information to foster BPS resiliency in connection with both traditional and emerging risks.

Goal 6: Improving ERO Enterprise Effectiveness and Efficiency

The ERO Enterprise embraces transparency, collaboration, consistency, quality, efficiency, and timeliness of results and operates as a coordinated and collaborative enterprise.

Methodology for Allocation of Administrative Services Expenses to Programs

All expenses for the Administrative Services programs, referred to as indirect expenses, are allocated to the delegated program areas based on their respective number of FTEs.

Funding Sources

The expenses related to the indirect program areas are being allocated entirely to the direct programs; therefore, the indirect program areas have no ERO assessment revenue.

General and Administrative

The following table lists the General and Administrative budget.

General and Administrative (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	3.36	2.75	(0.61)
Total Direct Expenses	\$ 1,481,685	\$ 1,862,449	\$ 380,764
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Assessment Stabilization Reserves Req'd	\$ (1,068,447)	\$ (1,743,698)	\$ (675,251)

Table A-12. General and Administrative Budget

Program Scope and Functional Description

The General and Administrative Department is led by MRO's President and CEO. The department ensures that there is appropriate attention to the execution of MRO's strategic priorities and the day-to-day management of the corporation, board governance, policies and procedures to maintain and enhance operation of the corporation, proper record-keeping, and related responsibilities under applicable regulations, as well as MRO's Delegation Agreement.

General and Administrative Services Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$381K, 25.7%)

Personnel Expenses (Increase \$97.7K, 9.4%)

The average salary increase was budgeted at 3 percent. Retirement benefits budgeted at 3 percent but also incremental increase in benefit for leadership service years. .

Meeting Expenses (Decrease \$90.4K, 34.7%)

There is a decrease in overall meeting and travel expenses due to increased use of virtual meetings.

Operating Expenses (Increase \$373.5K, 201.9%)

Costs for Independent Director compensation and reimbursement were moved from the Legal Department to the General and Administrative Department. As compared to the expense budgeted for 2021 in legal, budgeted expense for independent director compensation and reimbursement is stable for 2022.

General and Administrative Budget Detail

The following table shows funding sources and related expenses for the General and Administrative Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
GENERAL and ADMINISTRATIVE					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ (1,068,447)	\$ (1,068,447)	\$ -	\$ (1,743,698)	\$ (675,251)
Penalties Released	-	-	-	-	-
Total Funding (A)	\$ (1,068,447)	\$ (1,068,447)	\$ -	\$ (1,743,698)	\$ (675,251)
Expenses					
Personnel Expenses					
Salaries	\$ 845,317	\$ 845,317	\$ -	\$ 936,453	\$ 91,137
Payroll Taxes	34,161	34,161	-	34,547	385
Benefits	51,571	51,571	-	45,829	(5,743)
Retirement Costs	104,936	104,936	-	116,820	11,884
Total Personnel Expenses	\$ 1,035,985	\$ 1,035,985	\$ -	\$ 1,133,649	\$ 97,664
Meeting Expenses					
Meetings	\$ 60,000	\$ 60,000	\$ -	\$ 60,000	\$ -
Travel	200,700	200,700	-	110,300	(90,400)
Total Meeting Expenses	\$ 260,700	\$ 260,700	\$ -	\$ 170,300	\$ (90,400)
Operating Expenses					
Consultants & Contracts	\$ 65,000	\$ 65,000	\$ -	\$ 65,000	\$ -
Office Rent	-	-	-	-	-
Office Costs	120,000	120,000	-	133,000	13,000
Professional Services	-	-	-	360,500	360,500
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 185,000	\$ 185,000	\$ -	\$ 558,500	\$ 373,500
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ (1,481,685)	\$ (1,481,685)	\$ -	\$ (1,862,449)	\$ (380,764)
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A - B)	\$ (1,068,447)	\$ (1,068,447)	\$ -	\$ (1,743,698)	\$ (675,251)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ (1,068,447)	\$ (1,068,447)	\$ -	\$ (1,743,698)	\$ (675,251)

Table A-13. General and Administrative Budget Detail

Legal

The following table lists the Legal budget.

Legal (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.55	2.79	1.24
Total Direct Expenses	\$ 834,634	\$ 976,919	\$ 142,285
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ -	\$ -	\$ -

Table A-14. Legal Budget

Program Scope and Functional Description

MRO's Legal function is staffed by the Vice President General Counsel and Corporate Secretary, and Assistant Corporate Secretary and Senior Counsel. Advice is provided to the board, the President and CEO, and staff on legal matters affecting MRO; and corporate records for the board are maintained in this area. MRO may use external specialized legal resources on an as-needed basis. In 2021, this functional area added an FTE focused on external and internal communications, work that had previously been spread across multiple departments.

Legal Resource Requirements**Overall Budget Change 2022 vs 2021 (Increase \$142K, 17.0%)**

The increase in this indirect program area is related to the increase in FTEs to reflect the addition of communications activities and staff.

Personnel Expenses (Increase \$384K, 114.8%)

The average salary increase was budgeted at 3 percent. Additionally, there is an increase in FTEs. Benefits increased due to projected increase in medical premium costs.

Meeting Expense (Decrease \$3.2K, 13.6%)

This decrease is due to reallocation of travel costs for on-site visit of remotely located staff to the enforcement budget. The decrease is also due to less planned business travel.

Operating Expense (Decrease \$238.5K, 50%)

The decrease in this indirect program area is related to a reallocation of budget for Independent Director Compensation and reimbursement to the General and Administrative budget. The increase in office costs is due to added costs for communications and outreach training, outreach supplies and additional cost of professional licenses.

Legal Budget Detail

The following table shows funding sources and related expenses for the Legal Department.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
LEGAL					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 268,391	\$ 268,391	\$ -	\$ 552,889	\$ 284,497
Payroll Taxes	12,352	12,352	-	33,056	20,704
Benefits	20,113	20,113	-	47,452	27,339
Retirement Costs	33,534	33,534	-	85,019	51,484
Total Personnel Expenses	\$ 334,390	\$ 334,390	\$ -	\$ 718,415	\$ 384,025
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ 500	\$ 500
Travel	23,500	23,500	-	19,800	(3,700)
Total Meeting Expenses	\$ 23,500	\$ 23,500	\$ -	\$ 20,300	\$ (3,200)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 54,900	\$ 54,900
Office Rent	-	-	-	-	-
Office Costs	15,244	15,244	-	35,804	20,560
Professional Services	461,500	461,500	-	147,500	(314,000)
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 476,744	\$ 476,744	\$ -	\$ 238,204	\$ (238,540)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ (834,634)	\$ (834,634)	\$ -	\$ (976,919)	\$ (142,285)
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A - B)	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	1.55	1.55	-	2.79	1.24

Table A-15. Legal Budget Detail

Information Technology

The following table lists the Information Technology budget.

Information Technology (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	6.00	7.98	1.98
Total Direct Expenses	\$ 2,198,094	\$ 2,298,664	\$ 100,570
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ -	\$ -	\$ -

Table A-16. Information Technology Budget

Program Scope and Functional Description

MRO's Information Technology Program responds to business needs by providing the technology and communications tools for staff to perform Regional Entity functions. Information Technology is also responsible for maintaining the security of the organization's business network and information.

In addition, this program contributes to the ERO Enterprise focus to capture effectiveness, efficiency, and continuous improvement opportunities. This program coordinates efforts with NERC and other regional IT programs to find best practice and cost efficiencies through shared tools and applications and supports ERO Enterprise efforts related to the ERO Enterprise Long-Term Strategy through execution of MRO's strategic goals 5 and 6:

Goal 5: Identification and Reduction of Cyber and Physical Security Risks:

As part of the ERO Enterprise, MRO identifies and evaluates cyber and physical security risks to the BPS and assures those risks are reduced through active stakeholder engagement and information sharing of current threats and vulnerabilities, security workshops, and development of good industry practice guides. The ERO Enterprise supports the Electricity Information Sharing and Analysis Center (E-ISAC), the CRISP, technical protective programs, and physical and cybersecurity preparedness exercises, and engages with government partners to de-classify sensitive security information needed to protect BPS devices and assets. The ERO Enterprise works with stakeholders to develop and share information to foster BPS resiliency in connection with both traditional and emerging risks.

Goal 6: Improving ERO Enterprise Effectiveness and Efficiency

The ERO Enterprise embraces transparency, collaboration, consistency, quality, efficiency, and timeliness of results and operates as a coordinated and collaborative enterprise.

Information Technology Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$100.6K, 4.6%)

The increase in the indirect programs is largely due to an increase in IT staff. Cyber security threats and risks continue to increase and evolve, and testing and analysis in this program identified a staff shortage. Additional FTEs are needed to manage an increased focus on security efforts.

Personnel Expenses (Increase \$267.5K, 25.8%)

The average salary increase was budgeted at 3 percent. There is a net increase of two FTEs in this program area. Additionally, benefits increased due to projected increase in medical premium costs.

Meeting Expenses (Decrease \$3.8K, 38.0%)

Staff travel decreased as increased use of virtual meetings take the place of in-person meetings.

Operating Expenses (Decrease \$38K, 4.2%)

This decrease reflects some cost savings in repairs and maintenance.

Fixed Asset (Decrease \$125K, 50%)

Major capital purchases were made in 2021. Fewer purchases are needed in 2022. Purchases are mainly replacements on retired computer hardware.

Information Technology Budget Detail

The following table shows funding sources and related expenses for the Information Technology Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
INFORMATION TECHNOLOGY					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 746,507	\$ 746,507	\$ -	\$ 921,491	\$ 174,984
Payroll Taxes	55,252	55,252	-	67,927	12,675
Benefits	104,289	104,289	-	135,988	31,700
Retirement Costs	130,990	130,990	-	179,140	48,150
Total Personnel Expenses	\$ 1,037,037	\$ 1,037,037	\$ -	\$ 1,304,546	\$ 267,509
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ 1,200	\$ 1,200
Travel	10,000	10,000	-	5,000	(5,000)
Total Meeting Expenses	\$ 10,000	\$ 10,000	\$ -	\$ 6,200	\$ (3,800)
Operating Expenses					
Consultants & Contracts	\$ 549,707	\$ 549,707	\$ -	\$ 549,568	\$ (139)
Office Rent	-	-	-	-	-
Office Costs	351,350	351,350	-	313,350	(38,000)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 901,057	\$ 901,057	\$ -	\$ 862,918	\$ (38,139)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	(1,948,094)	(1,948,094)	\$ -	(2,173,664)	(225,570)
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A - B)	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Asset Additions, excluding Right of Use Assets	\$ 250,000	\$ 250,000	-	\$ 125,000	\$ (125,000)
Allocation of Fixed Assets	\$ (250,000)	\$ (250,000)	-	\$ (125,000)	\$ 125,000
Inc(Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	6.00	6.00	-	7.98	1.98

Table A-17. Information Technology Budget Detail

Human Resources

The following table lists the Human Resources budget.

Human Resources (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.29	2.15	0.86
Total Direct Expenses	\$ 431,072	\$ 474,285	\$ 43,213
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ -	\$ -	\$ -

Table A-18. Human Resources Budget

Program Scope and Functional Description

Human Resources

The Human Resources function designs, plans, and implements Human Resource policies and procedures in adherence with applicable federal and state laws. This function also facilitates the recruitment and retention efforts of the organization by coordinating tasks associated with the employee life cycle activities including onboarding, training, professional development, and best practice employee retention initiatives. This department also engages in Diversity and Inclusion initiatives as well as works closely with the ERO Enterprise on similar efforts, and undertakes or supports several other important initiatives as directed by MRO's Governance and Personnel Committee.

MRO has developed a culture and talent management program that features in-depth communication and training. New hire training initiatives and employee collaborations are planned to create opportunities for peer-to-peer internal mentorship, learning opportunities, and team building. MRO continues to review and enhance its employee engagement and culture enrichment activities in an effort to positively impact all stages of the employee life cycle from candidate identification, the onboarding experience of new employees, throughout the life cycle, as well as the overall corporate culture to be an "employer of choice," to attract and retain qualified staff.

Human Resources Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$43K, 10.0%)

The budget change in this administrative area is primarily due to the increase in FTEs. MRO has doubled its staff under existing resources, increased its participation in ERO groups, and engages in other important initiatives, making the addition of a dedicated HR FTE necessary.

Personnel Expense (Increase \$39K, 11.6%)

The average salary increase was budgeted at 3 percent. An additional FTE is needed to support staff growth and the reallocation of resources to support the development of the corporate risk management program.

Operating Expense (Increase \$4K, 4.6%)

Budgeted amounts in office costs increased slightly for costs related to the addition of one FTE.

Human Resources Budget Detail

The following table shows funding sources and related expenses for the Human Resources Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
HUMAN RESOURCES					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released				-	
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 259,627	\$ 259,627	\$ -	\$ 273,690	\$ 14,063
Payroll Taxes	15,704	15,704	-	18,244	2,540
Benefits	24,239	24,239	-	34,323	10,085
Retirement Costs	38,003	38,003	-	50,353	12,350
Total Personnel Expenses	\$ 337,572	\$ 337,572	\$ -	\$ 376,610	\$ 39,038
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	2,000	2,000	-	2,000	-
Total Meeting Expenses	\$ 2,000	\$ 2,000	\$ -	\$ 2,000	\$ -
Operating Expenses					
Consultants & Contracts	\$ 27,000	\$ 27,000	\$ -	\$ 27,000	\$ -
Office Rent	-	-	-	-	-
Office Costs	64,500	64,500	-	68,675	4,175
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 91,500	\$ 91,500	\$ -	\$ 95,675	\$ 4,175
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ (431,072)	\$ (431,072)	\$ -	\$ (474,285)	\$ (43,213)
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A - B)	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	1.29	1.29		2.15	0.86

Table A-19. Human Resources Budget Detail

Finance and Accounting

The following table lists the Finance and Accounting budget.

Finance and Accounting (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	3.80	4.35	0.55
Total Direct Expenses	\$ 2,214,201	\$ 2,329,953	\$ 115,752
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ -	\$ -	\$ -

Table A-20. Finance and Accounting Budget

Program Scope and Functional Description

Finance and Accounting

The Finance and Accounting function directs the overall financial planning and accounting practices of the organization, oversees treasury, accounting, budget, tax, and audit activities, as well as the financial and accounting system controls and standards. The Finance and Accounting function also administers employee benefit plans, including the 401(k) and Retiree Medical Trust, and reports the overall outcome of MRO's annual activities to the MRO Board. This function also facilitates all MRO internal and external meetings, workshops, and events.

Finance and Accounting Resource Requirements

Overall Budget Change 2022 vs 2021 (Increase \$115.8K, 5.2%)

The increased costs in the Finance and Accounting area are primarily a result of increase in office space and a focus on facility management.

Personnel Expenses (Increase \$69K, 9.1%)

The average salary increase was budgeted at 3 percent. Additionally, there is an increase of one-half FTE in this program area.

Meeting Expenses (Decrease \$6K, 50%)

Staff travel decreased as increased use of virtual meetings take the place of in-person meetings.

Operating Expenses (Increase \$52K, 3.6%)

The increase in this area is due to higher contract and office costs. This cost is partially offset by reduced budgeted amounts in rent.

Finance, and Accounting Budget Detail

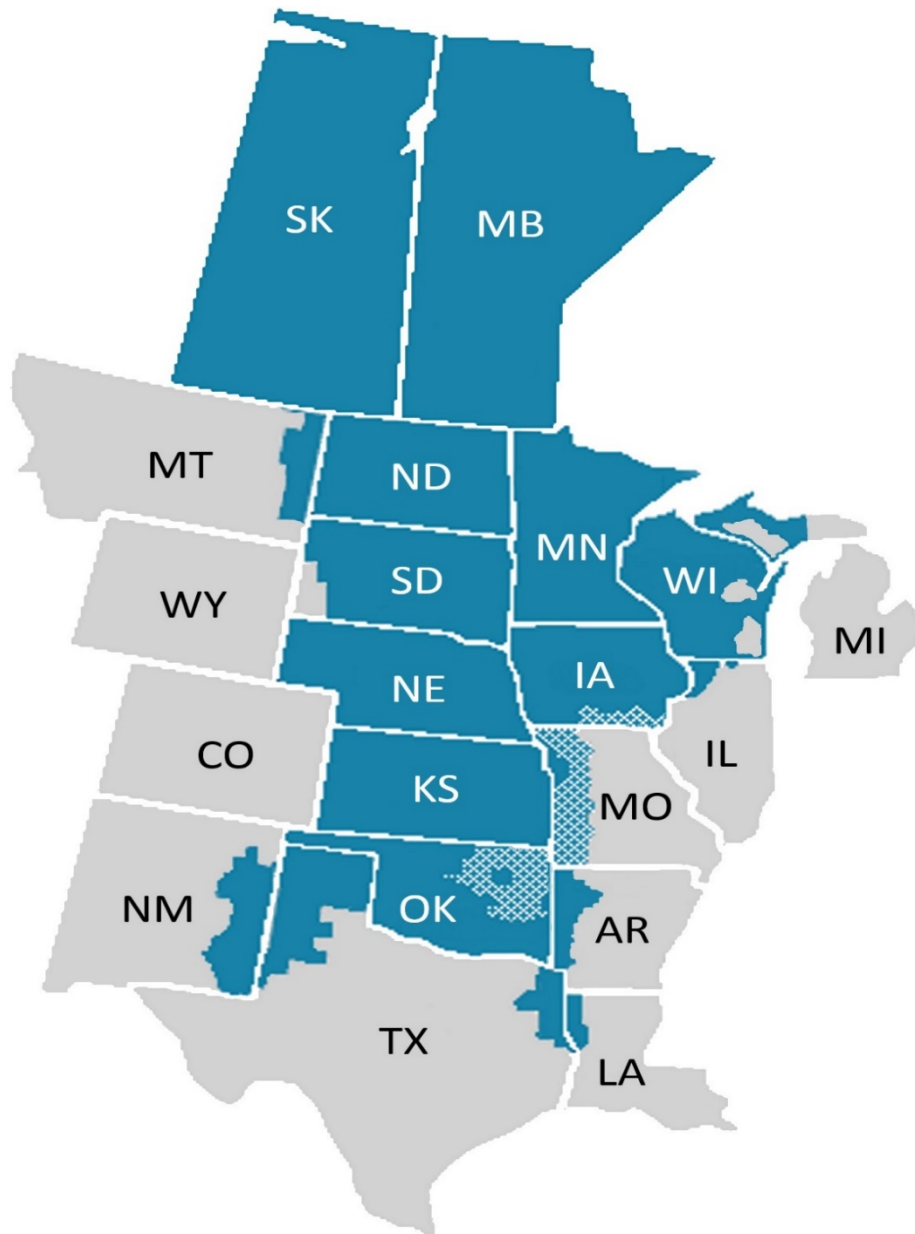
The following table shows funding sources and related expenses for the Finance and Accounting Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
FINANCE and ACCOUNTING					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Funding (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 549,682	\$ 549,682	\$ -	\$ 606,220	\$ 56,537
Payroll Taxes	35,972	35,972	-	37,423	1,451
Benefits	76,841	76,841	-	74,578	(2,263)
Retirement Costs	98,006	98,006	-	111,583	13,577
Total Personnel Expenses	\$ 760,501	\$ 760,501	\$ -	\$ 829,803	\$ 69,302
Meeting Expenses					
Meetings	\$ 2,000	\$ 2,000	\$ -	\$ 1,000	\$ (1,000)
Travel	10,000	10,000	-	5,000	(5,000)
Total Meeting Expenses	\$ 12,000	\$ 12,000	\$ -	\$ 6,000	\$ (6,000)
Operating Expenses					
Consultants & Contracts	\$ 43,500	\$ 43,500	\$ -	\$ 53,850	\$ 10,350
Office Rent	1,168,700	1,168,700	-	1,132,100	(36,600)
Office Costs	171,500	171,500	-	249,200	77,700
Professional Services	58,000	58,000	-	59,000	1,000
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 1,441,700	\$ 1,441,700	\$ -	\$ 1,494,150	\$ 52,450
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Indirect Expenses	\$ (2,214,201)	\$ (2,214,201)	\$ -	\$ (2,329,953)	\$ (115,752)
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ 0
Change in Net Assets (=A - B)	\$ -	\$ -	\$ -	\$ -	\$ (0)
Fixed Asset Additions, excluding Right of Use Assets	\$ -	\$ -	\$ -	\$ -	\$ -
Allocation of Fixed Assets	\$ -	\$ -	-	-	-
Inc(Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ -	\$ -	\$ -	\$ -	\$ 0
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ (0)
FTEs	3.80	3.80	-	4.35	0.55

Table A-21. Finance and Accounting Budget Detail

Section B – Supplemental Financial Information

2022 Business Plan and Budget



Section B – Supplemental Financial Information

Reserve Balance

Table B-1 analyzes the reserve for 2021 through 2022.

Reserve Analysis 2021-2022				
	Total Reserves	Working Capital Reserves	30-Day Reserves	Assessment Stabilization Reserves (ASR)
Beginning, January 1, 2021	8,512,161	5,904,677		2,607,484
Plus: Penalty Sanctions ¹	458,250			458,250
Plus: Release from ASR	-			-
Plus: 2021 Assessments	16,983,251	16,983,251		
Adjustment for targeted 30-day reserves		(1,513,332)	1,513,332	
Less: 2021 Projected Expenditures	(18,412,202)	(18,412,202)		
Projected Reserves December 31, 2021	7,541,460	2,962,394	1,513,332	3,065,734
Beginning, January 1, 2022	7,541,460	2,962,394	1,513,332	3,065,734
Plus: Penalty Sanctions ¹	-	458,250		(458,250)
Plus: Release from ASR	-	1,743,698		(1,743,698)
Plus: 2022 Assessments	17,832,414	17,832,414		
Adjustment for targeted 30-day reserves		(156,198)	156,198	
Less: 2022 Projected Expenditures	(20,034,361)	(20,034,361)		
Projected Reserves December 31, 2022	5,339,512	2,806,196	1,669,530	863,786

¹ Penalties collected between July 1, 2020 - June 30, 2021 are released in the following budget year

Table B-1. Reserve Analysis 2021 - 2022

Explanation of Changes in Reserve Policy from Prior Years

Per Policy and Procedure 13, MRO's reserves are identified and quantified each year in the business plan and budget. MRO resets its reserves at the beginning of each year. MRO's FAC resolved that a 30-day reserve of cash is sufficient based on MRO's cash flow risk. The FAC and the board determined that the certainty of MRO's funding stream supports the resolution that a 30-day reserve is reasonable for sustaining short-term contingencies.

Additionally, Policy and Procedure 13 addresses additional cash-on-hand necessary to meet unplanned, short-term financial needs resulting from changes in the level of expenditures that would adversely affect the company's total annual operating budget during the budget year. The policy combines penalties received and surplus working capital. MRO staff may propose to set aside these funds in a separate reserve account to be released in future periods to mitigate year-to-year variations in assessments. MRO proposes to release \$2,201,948 from assessment stabilization reserves to stabilize assessments.

Breakdown by Statement of Activity Sections

Table B-2 lists all penalties, including date received and amount, received prior to June 30, 2021.

Penalty Sanctions Received On or Prior to June 30, 2021	Date Received	Amount Received
	Feb-21	\$ 27,000
	Apr-21	41,250
	May-21	390,000
Total Penalties Received		\$ 458,250

Table B-2. Penalty Sanctions Received

Penalty Sanctions

All penalties received after July 1, 2020, and prior to June 30, 2021, are listed above, including the amount and date received.

Allocation Method: Penalty sanctions received have been combined with surplus working capital (if any). MRO staff may set aside these funds in a separate reserve account to be released in future budget periods to mitigate year-to-year variations in budget assessments. Assuming no additional penalties collected, all remaining penalty dollars will be released in the 2022 budget year as part of assessment stabilization.

Table B-3 lists the budget for Supplemental Funding.

Outside Funding Breakdown By Program (Excluding Penalty Sanction)	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget
Compliance Monitoring, Enforcement & Org. Registration				
Other	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis				
Other		-		
Total	\$ -	\$ -	\$ -	\$ -
Training and Education				
Testing Fees and Certificate Renewals	\$ -	\$ -	\$ -	-
CEH Fees	-	-	-	-
Workshops	-	-	-	-
Other		-		
Total	\$ -	\$ -	\$ -	\$ -
Situation Awareness and Infrastructure Security				
FIST Royalties	\$ -	\$ -	\$ -	-
TSIN Fees				
Other		-		
Total	\$ -	\$ -	\$ -	\$ -
General and Administrative				
Interest Income	\$ -	\$ -	\$ -	-
Other				
Total	\$ -	\$ -	\$ -	\$ -
Total Outside Funding	\$ -	\$ -	\$ -	\$ -

Table B-3. Supplemental Funding

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

MRO does not earn interest income on general cash held. MRO does not budget interest income on penalties received and held for future budget years. All interest earned is applied to reserves for the reduction of future assessments.

Table B-4 summarizes Personnel Expenses.

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Total Salaries	\$ 10,059,263	\$ 10,059,263	\$ 11,416,562	\$ 1,357,299	13.5%
Total Payroll Taxes	631,891	631,891	744,165	112,275	17.8%
Total Benefits	1,064,375	1,064,375	1,193,996	129,621	12.2%
Total Retirement	1,528,209	1,528,209	1,922,258	394,048	25.8%
Total Personnel Costs	\$ 13,283,737	\$ 13,283,737	\$ 15,276,980	\$ 1,993,243	15.0%
FTEs	66.00	66.00	71.00	5.00	7.6%
Cost per FTE					
Salaries	152,413	\$ 152,413	\$ 160,797	8,384	5.5%
Payroll Taxes	9,574	9,574	10,481	907	9.5%
Benefits	16,127	16,127	16,817	690	4.3%
Retirement	23,155	23,155	27,074	3,919	16.9%
Total Cost per FTE	\$ 201,269	\$ 201,269	\$ 215,169	\$ 13,900	6.9%

Table B-4. Personnel Expenses

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Personnel Expenses (Increase \$2M, 15.0%)

The following assumptions were used to determine the 2022 MRO budget:

- Total personnel expenses were increased to include the addition of 1 net FTE to support the statutory programs and 4 net FTEs in administrative services.
- The average salary increase was budgeted at 3 percent. Benefit costs are projected to increase by 9 percent .

Table B-5 lists the budget for Meeting Expenses.

Meeting Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Meeting Expenses	\$ 204,900	\$ 204,900	\$ 178,877	\$ (26,023)	-12.7%
Travel	739,967	\$ 739,967	581,670	(158,297)	-21.4%
Total Meeting Expenses	\$ 944,867	\$ 944,867	\$ 760,547	\$ (184,320)	-19.5%

Table B-5. Meeting Expenses

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Meeting Expenses (Decrease \$184K, 19.5%)

The decrease in meeting and travel expense reflects increased use of virtual meetings.

Travel Expenses (Decrease \$158K, 21.4%)

There is an overall travel expense decrease for both staff travel and member reimbursement. Travel dollars for participation on ERO collaboration groups, the Align project, and member travel for organizational group face-to-face meetings trended very low in prior years. It is anticipated that these costs will not be as high as budgeted in prior years and thus costs are budgeted much lower in 2022. The increased use of virtual technology is also a factor for decrease in costs.

Table B-6 lists the budget for Consultants and Contracts.

Consultants	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance	403,000	282,100	165,000	(238,000)	-59%
Reliability Analysis and Organization Registration and Certification	-	-	-	-	
Event Analysis	-	-	-	-	
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Committee and Member Forums	-	-	-	-	
General and Administrative	65,000	65,000	65,000	-	0%
Legal	-	-	54,900	54,900	
Information Technology	191,200	191,200	165,200	(26,000)	-14%
Human Resources	-	-	-	-	
Accounting and Finance	7,500	7,500	7,500	-	0%
Consultants Total	\$ 666,700	\$ 545,800	\$ 457,600	\$ (209,100)	-31%

Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Contracts					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance	180,394	126,276	218,382	37,988	21%
Reliability Analysis and Organization Registration and Certification	71,100	49,770	71,100	-	0%
Event Analysis	-	-	-	-	
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Committee and Member Forums	-	-	-	-	
General and Administrative	-	-	-	-	
Legal	-	-	-	-	
Information Technology	358,507	268,880	384,368	25,861	7%
Human Resources	27,000	27,000	27,000	-	0%
Accounting and Finance	36,000	36,000	46,350	10,350	29%
Contracts Total	\$ 673,001	\$ 507,926	\$ 747,200	\$ 74,199	11%

Table B-6. Consultants and Contracts

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Consultants for Compliance (Decrease \$238K, 59%)

Consultants for Compliance was historically budgeted to have resources to perform CMEP activity in case staffing levels were not adequate to perform required work. MRO is not projecting a need for this in 2022. The scope of the consulting budget for compliance in 2022 is to seek outside expertise in process efficiencies to review the department's processes.

Legal (Increase \$54.9K, 100%)

This increase includes communication initiatives for crisis and media preparation and training.

IT Consultants (Decrease \$26K, 14%)

Consultants consist of external technical support of the MRO communication network. Internal staff have been able to maintain MRO's IT network with less external technical support.

Contracts for Compliance (Increase \$38K, 21%)

The increase is due to contract costs for continued carrying costs for webCDMS.

IT Contracts (Increase \$25.9K, 7%)

IT contracts consist of maintenance of IT networks, systems, and software applications. Increased costs in contracts are due to the addition of business applications and newly acquired communication systems for greater efficiency and robust technological operation.

Accounting and Finance Contracts (Increase \$10.4K, 29%)

Contracts consist of the use of third-party vendors that support the use of finance applications.

Table B-7 lists the budget for Office Rent.

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Office Rent	\$ 1,128,700	\$ 1,128,700	\$ 1,086,100	\$ (42,600)	-3.8%
Utilities	10,000	\$ 10,000	11,000	1,000	10.0%
Maintenance	30,000	\$ 30,000	35,000	5,000	16.7%
Total Office Rent	\$ 1,168,700	\$ 1,168,700	\$ 1,132,100	\$ (36,600)	-3.13%

Table B-7. Office Rent

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Rent is slightly lower due to adjusted occupancy costs from prior year.

Table B-8 lists the budget for Office Costs.

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Phone Service					
Data Circuit (qmo)	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	0.00%
Webex	19,200	19,200	19,200	-	0.00%
Voice Circuits	18,000	18,000	18,000	-	0.00%
Business Cable	3,250	3,250	3,250	-	0.00%
Disaster Recovery Site	-	-	-	-	
Internet/Cell	64,520	64,520	63,854	(666)	-1.03%
Office Supplies	35,000	35,000	36,700	1,700	4.86%
Employee Member Events	32,000	32,000	34,000	2,000	6.25%
Employee Related Expense	25,000	25,000	27,400	2,400	9.60%
Computer Supplies and Maintenance	149,000	149,000	138,500	(10,500)	-7.05%
Publications & Subscriptions	13,600	13,600	23,675	10,075	74.08%
Professional Dues	19,076	19,076	23,560	4,484	23.51%
Postage	4,200	4,200	4,200	-	0.00%
Temporary Services	-	-	55,000	55,000	
Finance-Filing/Reg Fees	4,000	4,000	4,400	400	10.00%
Equipment Repair/Service Contracts	39,000	39,000	39,000	-	0.00%
Bank Charges	6,000	6,000	20,000	14,000	233.33%
Presentation & Publicity & Supplies Promotional	20,000	20,000	25,000	5,000	25.00%
Departmental Functional Training	303,851	303,851	282,195	(21,656)	-7.13%
Insurance Expense	90,000	90,000	90,000	-	0.00%
Total Office Costs	\$ 905,697	\$ 905,697	\$ 967,934	\$ 62,237	6.87%

Table B-8. Office Costs

Explanation of Significant Variances – 2022 Budget versus 2021 Budget (Increase \$62K, 6.9%)

The primary increase is due to the added costs of temporary services.

Table B-9 lists the budget for Professional Services.

Professional Services	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Independent Trustee Fees	\$ 331,500	\$ 331,500	\$ 330,500	\$ (1,000)	-0.30%
Independent Trustee Travel Reimbursement	30,000	30,000	30,000	-	0.00%
Outside Legal	100,000	100,000	100,000	-	0.00%
Branding and Videography			47,500	47,500	
Accounting and Auditing Fees	35,000	35,000	36,000	1,000	2.86%
Actuarial Fees	23,000	23,000	23,000	-	0.00%
Total Services	\$ 519,500	\$ 519,500	\$ 567,000	\$ 47,500	9.14%

Table B-9. Professional Services

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

The variance in costs is mainly attributable to the rebranding and design of MRO's new website (the current website is slated for retirement).

Table B-10 lists the budget for Miscellaneous.

Miscellaneous Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
	\$ -	\$ -	\$ -	\$ -	-
					-
					-
Total Miscellaneous Expenses	\$ -	\$ -	\$ -	\$ -	0.00%

Table B-10. Miscellaneous

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

MRO has not budgeted any Miscellaneous Expenses in 2022 or 2021.

Table B-11 lists the budget for other Non-Operating Expenses.

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment					-
Office Relocation	-	-	-	-	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	0.00%

Table B-11. Other Non-Operating Expenses

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

MRO has not budgeted any Non-Operating Expenses in 2022 or 2021.

Table B-12 lists the budget for Fixed Assets.

Fixed Assets	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Computer Equipment	250,000	250,000	125,000	(125,000)	-50.0%
Capitalized Software	-	-	-	-	
Furniture and Equipment	-	-	-	-	
Leasehold Improvements	-	(10,000)	-	-	
Total Change in Fixed Assets	\$ 250,000	\$ 240,000	\$ 125,000	\$ (125,000)	-50.0%

Table B-12. Fixed Assets

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

MRO experienced one-time purchases in computer equipment in 2020-2021. Fewer computer purchases are expected in 2022.

Table B-13 compares the 2022 budget with projections for 2023 - 2024.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital							
2023 and 2024 Projections							
	2022	2023	\$ Change	% Change	2024	\$ Change	% Change
	Budget	Projection	22 v 23	22 v 23	Projection	23 v 24	23 v 24
Funding							
ERO Funding							
NERC Assessments	\$ 17,832,414	\$ 19,080,682	\$ 1,248,269	7.00%	\$ 20,416,330	\$ 1,335,648	7.00%
Penalties Released	458,250	-	(458,250)	-100.00%	-	-	-
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshop Fees & Miscellaneous	-	-	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-	-	-
Total Funding (A)	\$ 18,290,664	\$ 19,080,682	\$ 790,019	4.3%	\$ 20,416,330	\$ 1,335,648	7.0%
Expenses							
Personnel Expenses							
Salaries	\$ 11,416,562	\$ 12,078,722	\$ 662,161	5.8%	\$ 12,755,131	\$ 676,408	5.6%
Payroll Taxes	744,165	787,327	43,162	5.8%	831,417	44,090	5.6%
Benefits	1,193,996	1,263,248	69,252	5.8%	1,333,989	70,742	5.6%
Retirement Costs	1,922,258	2,033,749	111,491	5.8%	2,147,639	113,890	5.6%
Total Personnel Expenses	\$ 15,276,980	\$ 16,163,045	\$ 886,065	5.8%	\$ 17,068,176	\$ 905,131	5.6%
Meeting Expenses							
Meetings & Conference Calls	\$ 178,877	\$ 178,877	\$ -	0.0%	\$ 178,877	\$ -	0.0%
Travel	581,670	581,670	-	0.0%	581,670	-	0.0%
Total Meeting Expenses	\$ 760,547	\$ 760,547	\$ -	0.0%	\$ 760,547	\$ -	0.0%
Operating Expenses, excluding Depreciation							
Consultants & Contracts	\$ 1,204,800	\$ 1,240,944	36,144	3.0%	\$ 1,278,172	37,228	3.0%
Office Rent	1,132,100	1,166,063	33,963	3.0%	1,201,045	34,982	3.0%
Office Costs	967,934	996,972	29,038	3.0%	1,026,881	29,909	3.0%
Professional Services	567,000	584,010	17,010	3.0%	601,530	17,520	3.0%
Miscellaneous	-	-	-	-	-	-	-
Total Operating Expenses	\$ 3,871,834	\$ 3,987,989	\$ 116,155	3.0%	\$ 4,107,629	\$ 119,640	3.0%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
Indirect Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
Total Expenses (B)	\$ 19,909,361	\$ 20,911,581	\$ 1,002,220	5.0%	21,936,352	1,024,770	4.9%
Change in Net Assets (=A - B)	\$ (1,618,698)	\$ (1,830,899)	\$ (212,201)	13.1%	\$ (1,520,021)	310,878	-17.0%
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 125,000	\$ -	\$ (125,000)	-100.0%	\$ -	\$ -	-
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	\$ 20,034,361	\$ 20,911,581	\$ 877,220	4.4%	\$ 21,936,352	\$ 1,024,770	4.9%
TOTAL CHANGE IN RESERVES (=A-B-C)	\$ (1,743,698)	\$ (1,830,899)			\$ (1,520,021)		
FTEs	71.00	73.00	2.00		76.00	3.00	

Table B-13. Budget 2022 Compared with 2023-2024 Projections

Explanation of 2022, 2023, 2024 Projections

At this time, MRO does not anticipate significant changes in program areas for the next three years.

- FTEs increase by three
- Meeting expenses remain flat
- Three percent escalation rate applied to operating expense categories
- Total budget increase of \$877K in 2023
- Total budget increase of \$815K in 2024
- Zero penalties budgeted

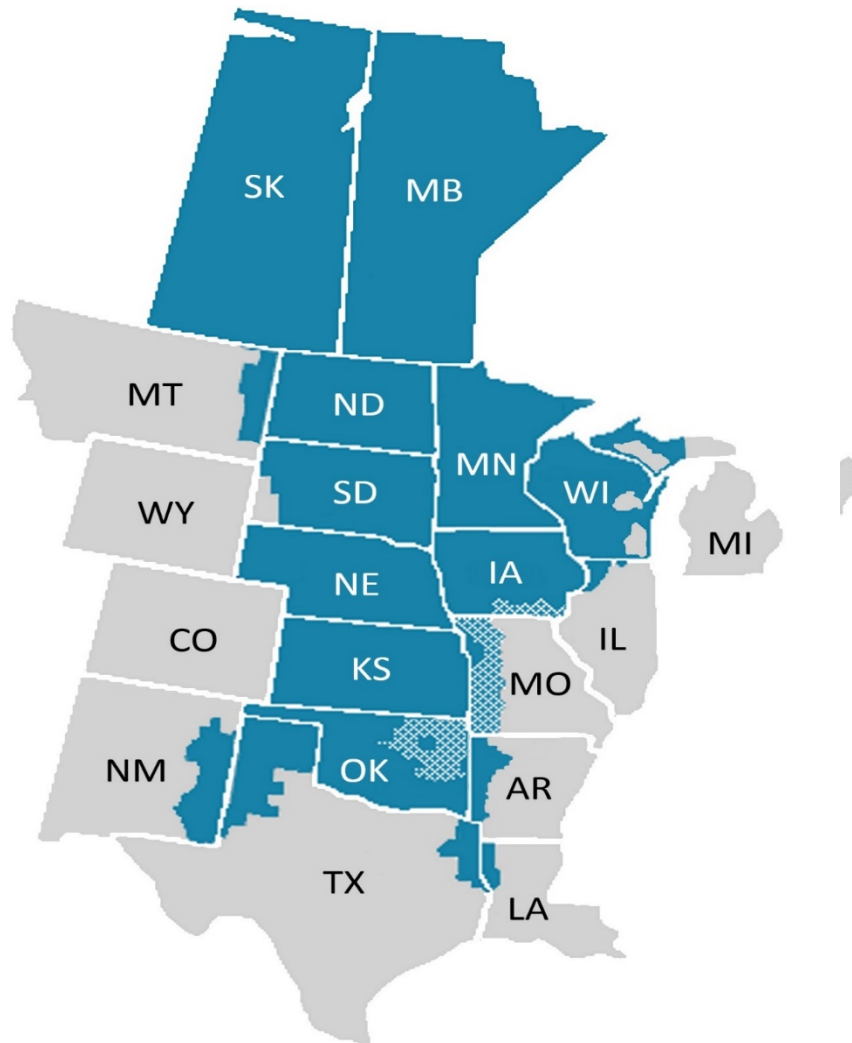
Section C – Non-Statutory Activities

2022 Business Plan and Budget

Section C – Non-Statutory Activities

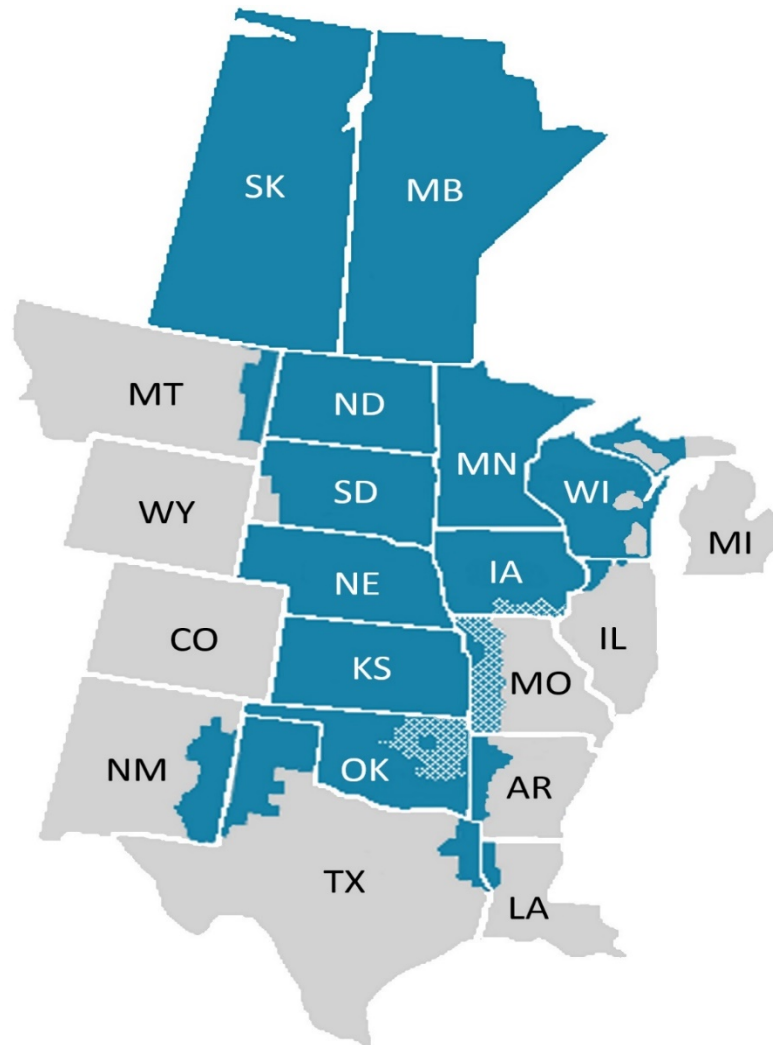
2022 Non-Statutory Business Plan and Budget

MRO has no non-statutory activities.



Section D – Additional Consolidated Financial Statements

2022 Business Plan and Budget



Section D – Additional Consolidated Financial Statements

2022 Consolidated Statement of Activities by Program, Statutory and Non-Statutory

Statement of Activities and Capital Expenditures by Program 2022 Business Plan and Budget	Functions in Delegation Agreement											
	Statutory Total	Reliability Standards (Section 300)	Compliance (Section 400)	Reliability Analysis and Organization Registration and Certification (Section 800 & 500)	Training and Education (Section 600&900)	Situation Awareness and Infrastructure Security (Section 1000)	Committee and Member Forums	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance
Funding												
ERO Funding												
NERC Assessments	17,832,414	154,508	13,910,317	3,610,669	842,003	1,058,615		(1,743,698)				
Assessment Stabilization Adjustment	458,250	4,045	328,631	82,068	16,989	26,517						
Membership Dues	-											
Testing Fees	-											
Services & Software	-											
Workshops & Miscellaneous Revenue	-											
Interest & Investment Income	-											
Total Funding (A)	18,290,664	158,553	14,238,948	3,692,737	858,992	1,085,132	-	(1,743,698)	-	-	-	-
Expenses												
Personnel Expenses												
Salaries	11,416,562	58,474	5,792,149	1,528,561	319,838	426,796	-	936,453	552,889	921,491	273,690	606,220
Payroll Taxes	744,165	3,914	399,863	100,217	20,073	28,902	-	34,547	33,056	67,927	18,244	37,423
Benefits	1,193,996	7,319	613,759	154,429	31,529	48,790	-	45,829	135,988	47,452	34,323	74,578
Retirement Costs	1,922,258	10,839	987,129	254,449	52,605	74,320	-	116,820	85,019	179,140	50,353	111,583
Total Personnel Expenses	15,276,980	80,547	7,792,900	2,037,657	424,045	578,809	-	1,133,649	718,415	1,304,546	376,610	829,803
Meeting Expenses												
Meetings	178,877	1,400	11,500	9,000	90,000	4,277	-	60,000	500	1,200	-	1,000
Travel	581,670	6,500	224,470	127,600	50,500	30,500	-	19,800	19,800	5,000	2,000	5,000
Total Meeting Expenses	760,547	7,900	235,970	136,600	140,500	34,777	-	170,300	20,300	6,200	2,000	6,000
Operating Expenses												
Consultants & Contracts	1,204,800	-	383,382	71,100	-	-	-	65,000	54,900	549,568	27,000	53,850
Office Rent	1,132,100	-	-	-	-	-	-	-	-	-	-	1,132,100
Office Costs	967,934	-	130,945	25,000	-	11,960	-	133,000	35,804	313,350	68,675	249,200
Professional Services	567,000	-	-	-	-	-	-	360,500	147,500	-	-	59,000
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	3,871,834	-	514,327	96,100	-	11,960	-	558,500	238,204	862,918	95,675	1,494,150
Total Direct Expenses	19,909,361	88,447	8,543,197	2,270,357	564,545	625,546	-	1,862,449	976,919	2,173,664	474,285	2,329,953
Indirect Expenses	-	69,003	5,606,108	1,399,994	289,812	452,353	-	(1,862,449)	(976,919)	(2,173,664)	(474,285)	(2,329,953)
Other Non-Operating Expenses	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses (B)	19,909,361	157,450	14,149,305	3,670,351	854,357	1,077,899	-	-	-	-	-	-
Change in Net Assets	(1,618,698)	1,103	89,643	22,386	4,634	7,233	-	(1,743,698)	-	-	-	-
Fixed Assets												
Computer & Software CapEx	125,000									125,000		
Furniture & Fixtures CapEx	-									-		
Equipment CapEx	-									-		
Leasehold Improvements	-									-		
Allocation of Fixed Assets	(0)	1,103	89,643	22,386	4,634	7,233	-	-	-	(125,000)	-	-
Inc(Dec) in Fixed Assets (C)	125,000	1,103	89,643	22,386	4,634	7,233	-	-	-	-	-	-
TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)	20,034,361	158,553	14,238,948	3,692,737	858,992	1,085,132	-	-	-	-	-	-
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	(1,743,698)	0	0	(0)	(0)	(0)	-	(1,743,698)	-	-	-	-
FTEs	71.00	0.45	36.56	9.13	1.89	2.95	-	2.75	2.79	7.98	2.15	4.35

Table D-1. Consolidated Statement of Activities by Program, Statutory and Non-Statutory

Statement of Financial Position

The following table provides MRO Statement of Financial Position as of these dates:

- As of December 31, 2020, per audit
- As of December 31, 2021, projected
- As of December 31, 2022, as budgeted

Statement of Financial Position			
2020 Audited, 2021 Projection, and 2022 Budget			
STATUTORY			
	(Per Audit)	Projected	Budget
	31-Dec-20	31-Dec-21	31-Dec-22
ASSETS			
Cash	8,654,730	7,787,096	7,967,516
Restricted Cash	-	-	-
Other Receivables	-	-	-
Prepaid expenses and other current assets	376,264	320,000	280,000
Security deposit	39,858	39,858	39,858
Restricted Cash - non-current	2,607,484	2,634,484	432,536
Other Assets	166,208	196,466	228,539
Property and equipment and capitalized software	1,627,565	3,636,261	3,569,956
Total Assets	13,472,109	14,614,165	12,518,406
LIABILITIES AND NET ASSETS			
Liabilities			
Accounts payable and accrued expenses	3,345,191	3,007,000	3,187,420
Postretirement medical benefit obligation	609,597	840,463	1,081,798
Deferred assessments - non-current	-	-	-
Deferred rent - non-current	446,917	465,306	488,809
Other Liability	166,208	196,466	228,539
Total Liabilities	4,567,913	4,509,235	4,986,566
Net Assets - unrestricted	8,904,196	10,104,930	7,531,840
Total Liabilities and Net Assets	13,472,109	14,614,165	12,518,406

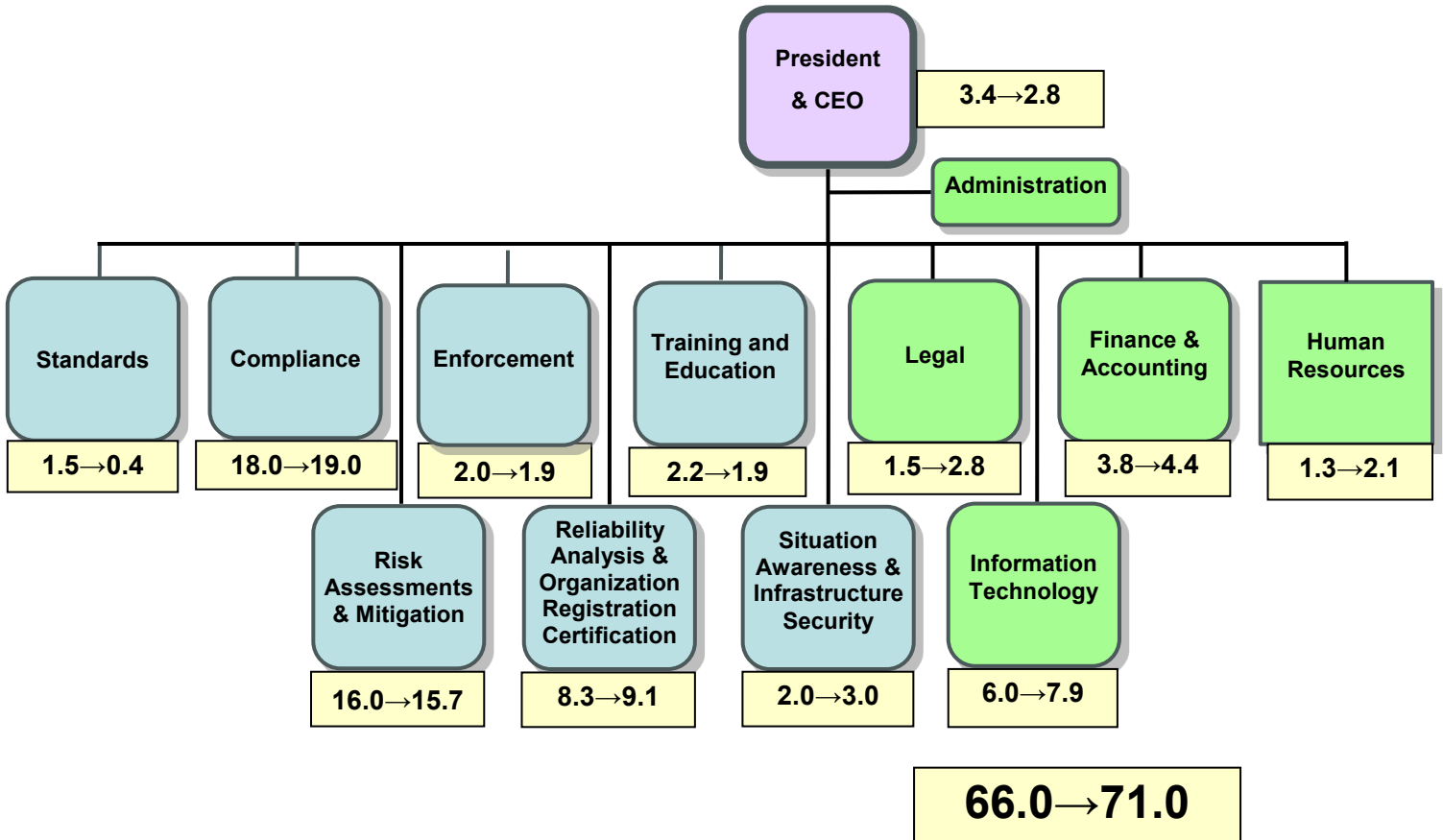
Table D-2. Statement of Financial Position, Three-Year Comparison

Appendix A

Organization Chart

The MRO Organization Chart is shown below.

2021 to 2022 Full Time Equivalent (FTE) Comparison Organization Chart



FTE Trend from 2020 to 2024

2020	2021	2022	2023 Estimate	2024 Estimate
63.0	66.0	71.0	73.0	74.0

Figure 2. Organization Chart and FTE Trend

Appendix B

This section lists acronyms used in this document.

Acronym	Definition
ASR	Assessment Stabilization Reserve
BES	Bulk Electric System
BPS	Bulk Power System
CMEP	Compliance Monitoring and Enforcement Program
CMEPAC	Compliance Monitoring and Enforcement Program Advisory Council
COP	Compliance Oversight Plan
CORES	Centralized Organization Registration ERO System
CRISP	Cybersecurity Risk Information Sharing Program
DADS	Demand Response Availability Data System
E-ISAC	Electricity Information Sharing and Analysis Center
ERAG	Eastern Interconnection Reliability Assessment Group
ERO	Electric Reliability Organization
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FTE	Full-Time Equivalent
GAAP	Generally Accepted Accounting Principles
GADS	Generating Availability Data System
GPC	Governance & Personnel Committee
HERO	Highly Effective Reliability Organization
HRO	Highly Reliable Organization
IRA	Inherent Risk Assessment
IT	Information Technology
MRO	Midwest Reliability Organization
NEL	Net-Energy-for-Load
NERC	North American Electric Reliability Corporation
OGOC	Organizational Group Oversight Committee
RAC	Reliability Advisory Council
RAM	Risk Assessment and Mitigation
RE	Regional Entity

RISC	Reliability Issues Steering Committee
SAC	Security Advisory Council
SAG	Standard Application Guide
SOA	Statement of Activities
SPP RE	Southwest Power Pool Regional Entity
TADS	Transmission Availability Data System

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DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 4

NORTHEAST POWER COORDINATING COUNCIL, INC.

PROPOSED 2022 BUSINESS PLAN AND BUDGET



Northeast Power Coordinating Council, Inc. (NPCC)

2022 Business Plan and Budget

**Approved by the
NPCC Board of Directors
at its June 23, 2021 Meeting and
Submitted to NERC June 23, 2021**

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Introduction

Total NPCC Resources				
(in whole dollars)				
	2022 Budget	U.S.	Canada	Mexico
Regional Entity Division FTEs	49.90			
Criteria Services Division FTEs	2.10			
Total FTEs	52.00			
Regional Entity Division Expenses	\$17,353,983			
Criteria Services Division Expenses	\$941,761			
Total Expenses	\$18,295,744			
Regional Entity Division Inc(Dec) in Fixed Assets	\$111,150			
Criteria Services Division Inc(Dec) in Fixed Assets	\$5,850			
Total Inc(Dec) in Fixed Assets	\$117,000			
Regional Entity Division Working Capital Requirement**	(\$1,289,473)			
Criteria Services Division Working Capital Requirement***	(\$309,331)			
Total Working Capital Requirement	(\$1,598,804)			
Total Regional Entity Division Funding Requirement	\$16,175,660			
Total Criteria Services Division Funding Requirement	\$638,280			
Total Funding Requirement	\$16,813,940			
Regional Entity Division Assessments	\$15,912,313	\$9,624,476	\$6,287,836	
Regional Entity Division Assessments Percentage	100%	60%	40%	
Criteria Services Division Membership Fees	\$636,745	\$280,785	\$355,961	
Total NPCC Assessments & Membership Fees	\$16,549,058	\$9,905,261	\$6,643,797	
NEL	605,651,000	267,073,000	338,578,000	
NEL %	100%	44%	56%	

Table 1: NPCC Budget

** Refer to Table B-1 on page 63 in Section B.

*** Refer to the Reserve Analysis on page 80 in Section C.

2022 Overview of Total NPCC Resource Requirements

Due to the international nature of NPCC, the total resource requirements including both Regional Entity division and Criteria Services division are identified above. The individual divisional explanations are contained in subsequent sections.

NPCC proposes a budget change of 5.6% and assessments change of 4.6%. On a divisional level, NPCC proposes a Regional Entity budget change of 6.2% and assessments change of 5.0% and a Criteria Services division budget change of -5.2% and assessment change of -5.2%. The proposed 2022 funding requirements will be satisfied by a Regional Entity division assessment of \$15,912,313 and Criteria Services division membership fees of \$636,745, for a total of \$16,549,058. The total NPCC assessments and fees represent a change of 4.6% compared to the 2021 total assessments and fees of \$15,826,338. The Regional Entity division assessment is equal to the Regional Entity funding requirement reduced by the application of penalty funds, workshop fee revenue and interest & investment income. The Criteria Services membership fees are equal to the Criteria Services division funding requirement less interest & investment income. Detailed projected statements of activities for the Regional Entity division and Criteria Services division are included on pages 13 and 78, respectively. NPCC believes that the Region remains an effective provider of Regional Entity and Criteria Services division functions. NPCC's corporate culture centers on consistent delivery of excellent results at a cost that is considerate of the longstanding tradition in Northeastern North America of affordable and reliable electricity.

Organizational Overview

Northeast Power Coordinating Council, Inc. (NPCC) is a 501(c)(6) not-for-profit corporation in the state of New York responsible for promoting and improving the reliability of the international, interconnected bulk power systems in Northeastern North America through (i) the development of Regional Reliability Standards and compliance assessment and enforcement of continent-wide and Regional Reliability Standards, (ii) coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (iii) the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria (collectively, Criteria Services activities). NPCC provides the functions and services for Northeastern North America of a cross-border Regional Entity through a Regional Entity division, as well as Regionally-specific Criteria Services for Northeastern North America through a Criteria Services division. NPCC's website is www.npcc.org.

The NPCC Region covers nearly 1.2 million square miles and is populated by more than 56 million people. NPCC U.S. includes the six New England states and the state of New York. NPCC Canada includes the provinces of Ontario, Québec and the Maritime provinces of New Brunswick and Nova Scotia. From a net energy for load perspective, NPCC is approximately 44% U.S. and 56% Canadian; while approximately 65% of Canadian net energy for load is within the NPCC Region.

Effective January 1, 2021, NPCC executed an Amended and Restated Regional Delegation Agreement with the North American Electric Reliability Corporation (NERC or Electric Reliability Organization (“ERO”)) that delegates to NPCC certain responsibilities and authorities of a cross-border Regional Entity as defined by *Section 215* of the Federal Power Act in the U.S. In addition, NPCC has executed Memoranda of Understanding (MOU) or Agreements with Canadian provincial regulatory and/or governmental authorities in Ontario, Québec, New Brunswick and Nova Scotia.

NPCC meets all requirements of Section 215 of the Federal Power Act, the ERO Regulations, and the NERC Rules of Procedure as approved by the Federal Energy Regulatory Commission necessary to qualify for delegation for the coming five-year period. This Amended and Restated Regional Delegation Agreement incorporates the benefits of the NPCC and NERC mutual experience and lessons learned while operating under the predecessor agreement with regard to NPCC U.S. and thereby provides for efficient and effective execution of respective responsibilities in a transparent manner that is pursuant to Section 215 and ERO Regulations. It is imperative that NPCC maintain its ability to carry out delegated authorities and responsibilities. NPCC has a 2022 targeted staffing level of 52 power industry professionals and support personnel. Details of the 2022 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2022 Regional Entity division supplemental financial schedules are shown in Section B. Section C details the 2022 Criteria Services division business plan and budget.

Membership and Governance

NPCC monitors approximately 239 registered entities and some 472 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 97 members. There are two categories of membership, General and Full. The two categories distinguish between Regional Entity delegated services that are provided in support of the U.S. FERC and Canadian provincial MOUs or Agreements with regulatory and/or governmental authorities, and Criteria Services which FERC references as U.S. non-delegated activities.

General Membership is voluntary and is open to any person or entity, including any entity participating in the Registered Ballot Body of the Electric Reliability Organization (ERO) that has an interest in the reliable operation of the Northeastern North American bulk power system. General Members, who are also registered entities within the NPCC Region, are subject to compliance with Reliability Standards, consistent with their registration, and receive additional services from the Regional Entity division of NPCC.

Full Membership is available to Members which are already General Members and participate in electricity markets in the Northeast. Independent system operators (ISOs), Regional transmission organizations (RTOs), transmission companies, and other organizations or entities that perform the Balancing Authority function operating in Northeastern North America are expected to be Full Members of NPCC. The New York State Reliability Council and any other sub-regional reliability councils which may be formed are also expected to be Full Members. Full Members are subject to compliance with Regionally-specific more stringent reliability criteria for their generation and transmission facilities on which faults or disturbances can have a significant adverse impact outside of the local area and which are identified utilizing a reliability impact-based methodology. Full Members also receive additional services from the Criteria Services division of NPCC, which is not funded through the ERO.

Under the Criteria Services division, NPCC will seek out and evaluate for membership, entities involved in emerging technologies to assure that those entities that have an impact on Bulk Electric System reliability are included in appropriate NPCC activities.

Since January 1, 2012 NPCC is governed by a Board of Directors consisting of seven stakeholder voting sectors consisting of a maximum of two directors per sector, an independent sector consisting of two independent directors, an independent Board Chair with voting rights to preclude board deadlocks, and the President and CEO. Within NPCC, no two sectors can control and no one sector can block action. The voting sectors on the NPCC Board of Directors include:

- Sector 1) Transmission Owners
- Sector 2) Reliability Coordinators
- Sector 3) Transmission Dependent Utilities, Distribution Companies, Load Serving Entities
- Sector 4) Generator Owners
- Sector 5) Marketers, Brokers and Aggregators
- Sector 6) Regulators
- Sector 7) Sub-Regional Reliability Councils, Customers, other Regional Entities and Interested Entities
- Sector 8) Independent

A Finance and Audit Committee (FAC), a Pension Committee (PC), a Corporate Governance and Nominating Committee (CGNC), and a Management Development and Compensation Committee (MDCC) are committees of the Board and advise the Board on finance, pension, governance, compensation, and human resource matters consistent with their approved charters.

The Regional Standards Committee (RSC), the Compliance Committee (CC), the Reliability Coordinating Committee (RCC), and the Public Information Committee (PIC), are committees of the corporation and consistent with their approved scopes, are responsible for various reliability issues. The RSC, CC and RCC also provide technical policy recommendations to the Board. All General and Full Members are eligible for representation on the technical committees.

Industry technical experts from within the membership provide valuable input to the Board through various working groups and task forces as well as the committees. The *Amended and Restated Bylaws* establish NPCC's independence from users, owners and operators of the bulk power system through the enhanced governance structure while providing fair stakeholder representation in the election of the Board of Directors and officers. The members, from each of the seven stakeholder voting sectors, vote to elect directors in their respective sector. The *Amended and Restated Bylaws* establish criteria for board service for both stakeholder and independent directors. Independent Directors are drawn from diverse backgrounds and possess a broad range of industry expertise, perspectives, experiences, skill sets and knowledge to contribute to the effective functioning of a hybrid board structure.

In addition, all Compliance and enforcement activities are carried out by the NPCC compliance staff and are independent of all users, owners, and operators of the international bulk electric system.

Compliance activities are governed in the United States by the *Amended and Restated Regional Delegation Agreement* between NERC and NPCC, delegating portions of NERC's authority as the ERO to NPCC. NPCC compliance activities in Canada are governed by individual provincial MOU or Agreements with each province providing the unique parameters for compliance and enforcement activities for each of the provinces. An MOU between the Independent Electricity System Operator in Ontario (IESO), NERC and NPCC establishes roles and responsibilities with regard to that province. NPCC, NERC and the New Brunswick Energy and Utilities Board are parties to a MOU that sets forth reliability activities for New Brunswick. The Régie de l'énergie, NERC and NPCC executed an Agreement regarding the implementation of the Québec reliability standards compliance monitoring and enforcement program. NPCC, NERC and Nova Scotia executed a MOU that sets forth the mutual understanding of the parties in relation to the approval and implementation of NERC Reliability Standards and NPCC Regional reliability criteria for the province of Nova Scotia.

International Foundation

The Regional Entity functions and services differ according to the particular regulatory backstop:

a) U.S. Foundation

The Federal Energy Regulatory Commission (FERC) certified NERC as the ERO on July 20, 2006. The ERO is responsible for developing and enforcing reliability standards within the United States. In executing part of its responsibilities, NERC delegates authority to the Regional Entities to perform certain functions through delegation agreements. Ensuring the reliability of the bulk power system in the State of New York and the six New England States is delegated from NERC to NPCC through the *Amended and Restated Regional Delegation Agreement*.

b) Ontario

NPCC activities in Ontario are executed in accordance with a February 5, 2010, MOU between NERC, NPCC and the Independent Electricity System Operator (IESO) in Ontario.

Among other things, the MOU recognizes that NERC and NPCC are standards authorities under the *Electricity Act, 1998* (Ontario). Additionally, under the authority of that same legislation, and as memorialized in the MOU, the NERC reliability standards and NPCC reliability criteria have effect in Ontario.

The IESO is subject to compliance monitoring and enforcement by NPCC.

The IESO is subject to NPCC assessments of compliance, including audits, as well as NPCC remedial action directives to correct noncompliance. In the event that the IESO disagrees with NPCC's finding of a violation or associated assessment of sanctions in connection with standards and criteria, the IESO has a right to a compliance hearing with NPCC.

c) Québec

The Régie de l'énergie, NERC and NPCC are parties to the May 8, 2009 *Agreement on the Development of Electric Power Transmission Reliability Standards and of Procedures and a Program for the Monitoring of the Application of These Standards for Québec* (the 2009 Agreement). Under the terms of the 2009 Agreement, the Régie de l'énergie, which is charged with ensuring the reliability of the electric transmission in Québec, retained NPCC and NERC as experts to develop reliability standards and monitoring program procedures for the Province.

The Régie de l'énergie, NERC and NPCC are parties to the September 24, 2014 *Agreement on the Implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program* (the 2014 Agreement). Through the 2014 Agreement, the Régie de l'énergie retains the services of NPCC to monitor and assess the compliance of registered entities in Québec with the reliability standards adopted by the Régie with respect to electric power transmission in Québec.

On April 1, 2015, the Québec Reliability Standards Compliance Monitoring and Enforcement Program ("QCMEP"), which was developed jointly by the Régie de l'énergie, NPCC and NERC, came into effect. Together, the 2014 Agreement and the QCMEP detail the procedures and program for monitoring and enforcing mandatory electric power transmission reliability standards in Québec.

d) New Brunswick

On October 1, 2013, the Electricity Act (NB) and implementing regulations (together, "NB Electricity Act") amended how Reliability Standards are approved, monitored, and enforced in the province of New Brunswick. The NB Electricity Act designates NPCC as a compliance body and NERC as a standards body within the meaning of the NB Electricity Act. The New Brunswick Energy and Utilities Board (NBEUB) is an independent board that is responsible for regulating New Brunswick's electricity sector under the NB Electricity Act. The NBEUB has the responsibility to adopt and enforce reliability standards in New Brunswick.

As contemplated in the NB Electricity Act, NPCC and the NBEUB entered into a Service Contract dated August 10, 2016, whereby NPCC provides CMEP and other services for the NBEUB. Additionally, the NBEUB, NPCC, and NERC entered into a Memorandum of Understanding on August 10, 2016, which describes the roles and responsibilities of the three entities and facilitates data sharing. These two documents, along with the NB Electricity Act are the governing documents with respect to conducting CMEP and other reliability related activities in New Brunswick.

e) Nova Scotia

Nova Scotia Power Incorporated (NSPI), NPCC and NERC are parties to a May 11, 2010 Memorandum of Understanding regarding the approval and implementation of mandatory NERC reliability standards and NPCC Regional reliability criteria. Pursuant to the MOU's terms, the Nova Scotia Utility and Review Board (NSUARB) issues decision on standards and criteria filed by NERC and NPCC for approval in Nova Scotia.

NPCC conducts compliance and enforcement activities with respect to the standards and forwards any noncompliance information and recommendations to the NSUARB. The NSUARB maintains the final authority with respect to enforcement in Nova Scotia and based on the recommendations from NPCC, may determine whether a violation has occurred and, if so, what remedial measures or non-monetary penalties should be imposed.

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system (BPS). Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. The Regional Entities have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions are completed. Both NERC and the Regional Entities have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.



Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.

ERO Enterprise Strategic and Operational Planning

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the *ERO Enterprise Long-Term Strategy* as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified bulk power system (BPS) risks. This strategy, which was approved by the NERC Board of Trustees (Board) on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial *ERO Reliability Risk Priorities Report*;
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization's Business Plan and Budget may reference how activities support each of the strategic focus areas.

2022 Key Goals and Key Deliverables

NPCC activities that support ERO Enterprise Long-Term Goals are detailed in each of the following program area sections. For example, key goals and deliverables within the Reliability Standards program area include supporting the development of risk-responsive continent-wide and Regional Reliability Standards, facilitating a Distributed Energy Resources (DER) Variable Energy Resource (VER) Forum, and expanding activities related to working with State and Provincial Regulators to facilitate achievement of decarbonization goals. Within the Compliance Monitoring and Enforcement and Organization Registration and Certification program, in addition to conducting objective, risk-informed compliance monitoring, enforcement and entity registration activities, this area will be addressing increased reliability enhancement activities and implementing the ERO Enterprise CMEP data application (Align). The Reliability Assessment and Performance Analysis program will be focusing on the reduction of known risks

to reliability and the identification and assessment of emerging reliability risks, such as changing resource composition. In the Situation Awareness and Infrastructure Security area there is an increasing focus on the identification and reduction of cyber and physical security risks through expanded outreach.

Regional Entity Division Functional Scope

NPCC's Regional Entity division functions in support of the ERO include:

- Active participation in the development and revision of North American Reliability Standards for the bulk electric system, and as needed development of Regional Reliability Standards and Variances applicable within the NPCC cross-border Regional Entity.
- Monitoring and enforcement of approved Reliability Standards, including the registration of responsible entities, and as needed certification of such entities.
- Facilitate the reliable deployment of Distributed Energy Resources (DER) and Variable Energy Resources (VER).
- Assessment of the present and future reliability of the bulk power system.
- Operational coordination and situation awareness support.
- Event analysis and identifying lessons learned to improve reliability.
- Effective training and education of reliability personnel.
- Promoting the protection of critical bulk electric infrastructure.
- Participating in reliability and security activities that enhance resilience of the bulk power system.
- Coordinate NPCC and NERC activities with local State and Provincial Regulators to facilitate meeting decarbonization goals.

In recognition of the delegated compliance role of Regional Entities as an important means to enhancing reliability, NPCC has designated a significant percentage of its staff resources to compliance monitoring and enforcement. NPCC, in conjunction with NERC and the other Regional Entities, has developed and deployed an ERO Enterprise-wide CMEP data application (Align) for gathering data, analysis, and tracking of compliance information to carry out these responsibilities in a consistent and cost-effective manner.

NPCC has organized the remaining staff into program areas consistent with EAct 2005 to address the other functions listed above. These experts in operations, planning and reliability analysis assist registered entities in assessing and improving reliability. It is in support of these areas that NPCC engages the majority of industry experts on its technical committees.

2022 Overview of Regional Entity Division Cost Impacts

The proposed Regional Entity division assessment of \$15,912,313, to support the Regional Entity division budget of \$17,465,133, is a change of 5.0% compared to the 2021 assessment of \$15,154,584. NPCC has budgeted an increase in staffing of 7.79 FTEs, comprised of 6.72 FTEs in statutory programs (including 5.50 FTEs in the Compliance Monitoring and Enforcement and Organization Registration and Certification program) and 1.07 FTEs in Administrative programs.

2021 Projections

Current year projections are taken into consideration in development of the budget. Expenses are currently projected to be under budget in the aggregate for 2021. Projections for 2021 reflect expectations based on the first quarter variance report. It is anticipated that projections could change throughout 2021 and would be reflected in each subsequent quarter's variance report.

Summary by Program

Program	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ 968,675	\$ 978,938	\$ 966,823	\$ (1,852)	-0.2%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 9,030,944	\$ 8,971,155	\$ 10,119,600	\$ 1,088,656	12.1%
Reliability Assessments and Performance Analysis	\$ 3,314,770	\$ 3,382,272	\$ 3,744,171	\$ 429,401	13.0%
Training, Education and Operator Certification	\$ 242,257	\$ 87,174	\$ 172,931	\$ (69,326)	-28.6%
Situation Awareness and Infrastructure Security	\$ 2,406,482	\$ 2,444,206	\$ 2,461,608	\$ 55,126	2.3%
Total	\$ 15,963,128	\$ 15,863,744	\$ 17,465,133	\$ 1,502,005	9.4%

Table 2: Budget by Program Area

This chart does not include allocation of working capital requirements among the Program Areas.

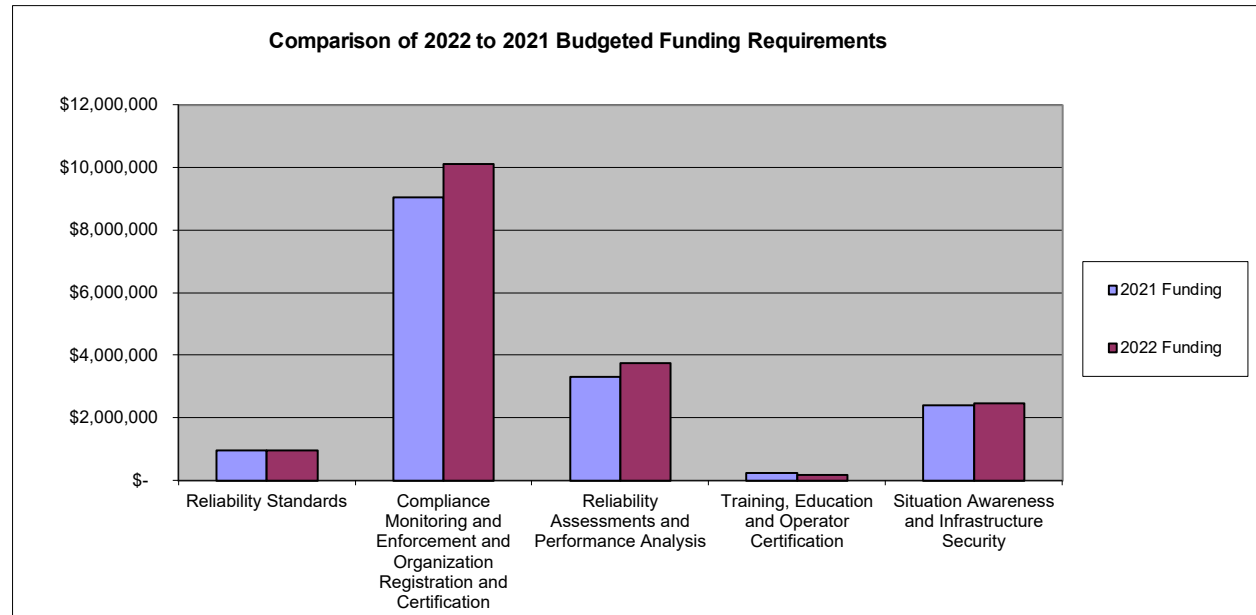


Figure 1: Budget by Program Area Chart

This chart does not include allocation of working capital requirements among the Program Areas.

Personnel Analysis

Total FTE's by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs ¹ 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
REGIONAL ENTITY DIVISION						
Operational Programs						
Reliability Standards	1.84	1.84	1.00	0.85	1.85	0.01
Compliance Monitoring and Enforcement and Organization Registration and Certification	19.45	22.45	24.95	0.00	24.95	5.50
Training, Education, and Operator Certification	0.10	0.10	0.10	0.00	0.10	0.00
Reliability Assessment and Performance Analysis	5.44	5.44	5.50	0.95	6.45	1.01
Situation Awareness and Infrastructure Security	5.40	5.40	5.60	0.00	5.60	0.20
Total FTEs Operational Programs	32.23	35.23	37.15	1.80	38.95	6.72
Administrative Programs						
Technical Committees and Member Forums	0.10	0.10	0.00	0.10	0.10	0.00
General and Administrative	2.73	3.23	2.50	0.00	2.50	-0.23
Information Technology	2.55	3.55	3.85	0.00	3.85	1.30
Legal and Regulatory	2.00	2.00	2.00	0.00	2.00	0.00
Human Resources	0.50	0.00	0.50	0.00	0.50	0.00
Accounting and Finance	2.00	2.00	2.00	0.00	2.00	0.00
Total FTEs Administrative Programs	9.88	10.88	10.85	0.10	10.95	1.07
Total FTEs	42.11	46.11	48.00	1.90	49.90	7.79

¹A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

Table 3: Regional Entity Personnel Analysis

Changes are addressed within each program area section.

2021 Budget and Projection and 2022 Budget Comparisons

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
REGIONAL ENTITY DIVISION						
	2021 Budget	2021 Projection	Variance ⁽²⁾ 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 15,154,584	\$ 15,154,584	\$ -	\$ 15,912,313	\$ 757,729	
Penalties Released ⁽¹⁾	201,132	201,132	-	201,132	(0)	
Total ERO Funding	\$ 15,355,716	\$ 15,355,716	\$ -	\$ 16,113,445	\$ 757,729	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	-	(67,500)	33,750	(33,750)	
Interest & Investment Income	56,264	15,275	(40,989)	28,465	(27,799)	
Total Funding (A)	\$ 15,479,480	\$ 15,370,991	\$ (108,489)	\$ 16,175,660	\$ 696,180	
Expenses						
Personnel Expenses						
Salaries	\$ 7,982,119	\$ 8,297,656	\$ 315,537	\$ 9,072,408	\$ 1,090,289	
Payroll Taxes	485,768	546,254	60,486	595,815	110,048	
Benefits	2,021,243	2,192,475	171,231	2,234,738	213,494	
Retirement Costs	909,832	908,567	(1,266)	1,041,405	131,573	
Total Personnel Expenses	\$ 11,398,962	\$ 11,944,951	\$ 545,989	\$ 12,944,366	\$ 1,545,404	
Meeting Expenses						
Meetings & Conference Calls	\$ 334,400	\$ 73,200	\$ (261,200)	\$ 230,600	\$ (103,800)	
Travel	727,920	327,960	(399,960)	505,572	(222,348)	
Total Meeting Expenses	\$ 1,062,320	\$ 401,160	\$ (661,160)	\$ 736,172	\$ (326,148)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 1,509,800	\$ 1,163,650	\$ (346,150)	\$ 839,650	\$ (670,150)	
Office Rent	870,141	870,141	-	906,141	36,000	
Office Costs	837,420	1,081,420	244,000	1,218,071	380,651	
Professional Services	1,005,000	1,005,000	-	1,017,000	12,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 4,273,361	\$ 4,171,211	\$ (102,150)	\$ 4,031,862	\$ (241,499)	
Total Direct Expenses	\$ 16,734,643	\$ 16,517,322	\$ (217,321)	\$ 17,712,400	\$ 977,757	
Indirect Expenses	\$ (387,995)	\$ (387,995)	\$ -	\$ (358,417)	\$ 29,578	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 16,346,648	\$ 16,129,328	\$ (217,321)	\$ 17,353,983	\$ 1,007,335	
Change in Net Assets (=A-B)	\$ (867,169)	\$ (758,337)	\$ 108,832	\$ (1,178,323)	\$ (311,154)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 94,000	\$ 116,000	\$ 22,000	\$ 111,150	\$ 17,150	
TOTAL BUDGET (=B+C)	\$ 16,440,648	\$ 16,245,328	\$ (195,321)	\$ 17,465,133	\$ 1,024,485	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (961,169)	\$ (874,337)	\$ 86,832	\$ (1,289,473)	\$ (328,304)	

(1) \$201,132 of penalties released from the Assessment Stabilization Reserve (ASR) to offset U.S. assessments as approved by the NPCC Board of Directors, NERC and FERC. Actual penalties invoiced in the current reporting year are shown as an increase in the ASR on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

(2) 2021 Projections reflect expectations based on the first quarter statement of activities. It is anticipated that projections could change throughout 2021 and would be reflected in each subsequent quarter's statement of activities.

Table 4: Budget and Current Year Projection Comparison

Section A – Regional Entity Division 2022 Business Plan and Budget

Section A — 2022 Regional Entity Division Business Plan and Budget

Reliability Standards Program

Reliability Standards Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.84	1.85	0.01
Direct Expenses	\$629,706	\$645,796	\$16,090
Indirect Expenses	\$333,603	\$315,748	(\$17,855)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$5,366	\$5,279	(\$87)
Total Funding Requirement	\$968,675	\$966,823	(\$1,852)

Table A - 1: Reliability Standards Budget

Program Scope and Functional Description

The NPCC Reliability Standards Program Area operates in accordance with NPCC’s filed and approved Regional Delegation Agreement and NERC Rules of Procedure Section 300. The program supports the ERO Standards Program Area roles and responsibilities, the ERO Enterprise Long-Term Strategy and aligns with NPCC’s Strategic Plan and Board of Director goals. NPCC’s Reliability Standards Program Area provides an efficient and effective mechanism for stakeholders to provide input and facilitate the development of, and improvement to, NERC and Regional cost effective reliability standards. NPCC works with the ERO and its stakeholders to expand the risk-based focus in all standards. The primary objectives of NPCC’s Reliability Standards Program Area are to support the development of ERO standards and Regional variances which establish “results-based” requirements, based on risk, and continue to deliver a high level of BPS reliability and security, with no identified gaps, and with due consideration given to cost effectiveness. NPCC supports the ERO efforts to develop reliability standards in a timely and efficient manner and which are also responsive to FERC Directives and risk to the reliable operation of the BPS. NPCC leverages the subject matter expertise of its staff and member Task Forces and Working Groups to provide comment to reliability related issues during standards development and ensures the ERO standards continually align with NPCC’s reliability objectives and criteria.

At the Regional level, the standards program area develops, and maintains NPCC Regional Reliability Standards, and ERO Standards Variances for the northeast as required. The NPCC Reliability Standards Program Area also provides oversight to ensure that NPCC’s Regional Reliability Criteria contained in the form of Directories, are developed, approved, and maintained as necessary to implement, augment, or to facilitate compliance with NERC Reliability Standards in accordance with Section 313 of the NERC Rules of Procedure. NPCC’s reliability criteria are not reliability standards but are mandatory and subject to enforcement as outlined in the NPCC *Amended and Restated Bylaws* and various contractual agreements, e.g. ISO tariffs, and individual interconnection agreements, as well as other agreements. Regional Reliability Criteria may also address issues not within NERC’s statutory jurisdiction for Reliability Standards, such as resource adequacy, and must in all cases at a minimum conform to stated requirements in Section 313 of the NERC Rules of Procedure.

In addition, the NPCC Reliability Standards Program Area has been conducting Distributed Energy Resources (DER) Variable Energy Resource (VER) Forums. Conventional fossil fuel units and nuclear retirements are increasingly being replaced by VER on the transmission system and DER on the distribution system. DER is commonly referred to as “grid edge resources” and has introduced the concept of decentralized generation and virtual power plants. It is projected that the future “reliable operation” of the BES, as defined in the US Federal Power Act, will be increasingly dependent on these resources. The control systems of VER, DER, Energy Storage Systems, and the hybrid installations of both will introduce new capabilities that could enhance reliability and understanding the interoperability issues between transmission and distribution systems will be critical. Additionally, electric vehicle (EVs) will be an important part of meeting green energy goals. The use of energy to both charge EVs, as well as discharge and participate in energy markets at both the retail and wholesale aggregate level, will have an effect on how NPCC and our ISOs conduct planning. NPCC is engaged in a number of areas to promote their reliable integration into the BES and opportunities to provide industry guidance for interconnecting DER. NPCC also has an increasing amount of VER in the various ISO queues, specifically offshore wind resources. Integrating these forms of VER requires different designs of planning and protection systems to reliably operate these resources. NPCC will continue to work with all stakeholders to identify opportunities to support their integration into the Regional BPS.

NPCC’s Reliability Standards Program Area has also been conducting outreach activities with local State and Provincial Regulators to coordinate our standards and criteria reliability related work. This outreach promotes coordination of activities to facilitate meeting local decarbonization objectives, increases efficiencies, reduces duplication of effort, identifies obstacles, and provides opportunities to further integrate planning processes while meeting reliability objectives.

2022 Key Assumptions

- Due to the COVID-19 pandemic, a number of lower priority reliability standards development projects had been placed “on-hold” due to stresses on industry resources. Contemporaneously, there have been a number of standards development opportunities identified by FERC, industry, and NERC technical committees to improve cyber security, supply chain, data gathering, and modeling of inverter-based resources. It is expected that the industry and NERC technical committees will be submitting a number of standard authorization requests to address other known risks as well, e.g. resilience for extreme events, hardening for Electromagnetic Pulse (EMP), and other high impact low frequency events.
- Continent-wide reliability standards projects will consist primarily of acting on recommendations of the various phases of the Standards Efficiency Review project, Standards Grading activities, conducting periodic reviews on existing ERO Reliability Standards to improve their content and quality, responding to identified risks to reliability (including those that may be identified through the implementation of risk-based Compliance Monitoring and Enforcement), and addressing FERC directives that may arise.
- NPCC’s Regional Reliability Standards development activity is expected to remain at a stable level, driven by requests that the Regional Entity may receive or reliability issues that are identified and not under consideration by NERC. Creation of Variances to NERC Reliability Standards to address reliability concerns or to recognize the unique topology and reliability considerations of the Northeast (i.e. Québec’s recognition as an asynchronous interconnection within NPCC’s footprint) will be performed as necessary.
- The number of NERC and Regional standards interpretations is expected to remain low. Compliance Implementation Guidance documents, which provide approaches to being compliant with NERC Reliability Standards may be developed using NPCC’s open process

and other industry vetting practices. These guidance documents are currently being developed by industry and the Standard Drafting Teams, and the number of requests may increase. The NPCC Reliability Standards program area will assist and facilitate support of these activities.

- Consistent with the NERC Rules of Procedure Sections 312 and 313, as continent-wide standards continue to evolve, NPCC Regional Standards and Criteria will need to be continually reviewed to ensure they augment but do not add redundancy to the ERO standards.

2022 Goals and Key Deliverables

- Participate in the annual development and revision of the NERC’s three-year Reliability Standards Development Plan (RSDP) through review, commenting, and other RSC activities.
- Participate in the NERC Standards Committee activities, as a representative for NPCC Regional stakeholders to advance strategic initiatives, to measure the effectiveness and quality of standards, support ERO efforts to address outstanding FERC Directives, and provide input in the prioritization of standards development projects.
- Support any further development of cost effectiveness principles, processes and pilots. Continue to provide insights to NERC, based on NPCC experiences, regarding strategy for developing cost effectiveness analysis for standards and identify opportunities to mitigate implementation costs for the draft standards and provide comments on cost effective alternative requirements.
- Participate in the NERC Standards Efficiency Review Project to retire standard requirements that are duplicative, administrative and add no additional benefit to the reliable operation of the bulk electric system and revise NERC process to ensure efficiency and effectiveness of standards development.
- Participate in the development of ERO Reliability Standards specified in NERC’s three-year Reliability Standards Development Plan with the emphasis placed on reducing the amount of new FERC Directives issues through closer coordination with Commission staff.
- Conduct thorough reviews of all NERC standards under development or revision by leveraging existing NPCC Task Forces and subject matter experts and coordinate NPCC comments for Northeastern North America.
- Participate in the Periodic Review Standing Team’s grading efforts and coordinate and represent the Regional and interregional input.
- Assist NERC’s review of all industry “Requests for Interpretations” of NERC Reliability Standards.
- NPCC staff and Regional drafting team volunteers will participate in the drafting of all ERO standards and provide support for development of improvements to standards. Those chosen to participate in drafting of standards will provide a point of contact for the NPCC RSC input to the standard being developed.
- NPCC and its members will review and coordinate comments on FERC staff informal assessments of the ERO Enterprise as appropriate.
- Participate in pre-ballot reviews of ERO standards and coordinate the development of consensus recommendations to NPCC’s Registered Ballot Body Members and Entities. Develop a list of any unaddressed reliability issues to inform and allow the Members to cast a ballot based on Regional concerns. This will continue to enhance the efficiency of the ERO standards development projects.

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- Review and identify issues and concerns raised in FERC Notice of Proposed Rulemakings (NOPRs) and Notice of Inquiries (NOIs) for any and all standards related issues as appropriate.
 - Educate and notify stakeholders and regulators about issues related to standards development through various means such as webinars and workshops.
 - Provide outreach to industry trade groups such as the North American Generator Forum and North American Transmission Forum when requested.
 - Monitor the NERC Reliability Issues Steering Committee (RISC) and the Reliability and Security Technical Committee (RSTC) activities as they identify emerging risks, develop recommended actions to mitigate such risks, and endorse Standards Authorization Requests (SARs) to initiate standards development. Provide a Regional point of contact for all potential reliability related risks and gaps within the Northeast or as noted by NPCC’s stakeholders.
 - Participate in and provide support to critical standards projects, such as CIP, Supply Chain, Geomagnetic Disturbances, High Altitude Electromagnetic Pulse (HEMP), changes to standards driven by inverter-based resources DERs, modeling and verification, etc.
 - Identify opportunities and initiate Regional Variances to the NERC Reliability Standards as soon as possible, allowing incorporation into the continent-wide standard during the development process.
 - Conduct reviews of Regional Standards as necessitated by the revision and approval of any associated Continent-wide NERC reliability standards or further reliability related need.
 - Conduct the development of any Québec Interconnection-Wide variances to NERC continent-wide standards using the NPCC Reliability Standards Development Process.
 - Identify potential reliability benefits and impacts to the BES as a result of DER penetration.
 - Conduct ongoing DER VER Forum activities to solicit and identify both opportunities and challenges to enhancing reliability through education, promotion of awareness and developing guidance, particularly for interconnection of utility scale DER on the Distribution System and large VER installations on the Transmission system.
 - Update, maintain and revise the NPCC DER VER guidance document as necessary and promote consistency across the NPCC footprint where possible.
 - In conjunction with the Reliability Coordinating Committee (RCC), review any DER impacts identified by stakeholders and develop an approach to promote awareness and resolution of any issues.
 - Identify opportunities to improve resilience of the BES and develop potential approaches either with the ERO or within the Region.
 - Monitor, collaborate and coordinate with State and Provincial reliability proceedings as they relate to the deployment of DER and VER to meet emissions targets (e.g. New York Dept. of Public Service Interconnection Technical Working Group, Massachusetts Technical Standards Group, etc.).
 - Collaborate with State and Provincial Regulatory Staff to identify areas where NPCC can support local decarbonization goals.
 - Identify and coordinate BPS reliability related issues with applicable Federal, State or Provincial governmental authorities.
 - Ensure the topics addressed by the Reliability Standards align with emerging risks and reliability objectives.
 - Participate in reliability metrics developmental activities to identify potential measures for benchmarking of reliability and standards to determine if an adequate level of reliability is being achieved through the Enhanced Periodic Review Standing Review Team and Standards Grading activities.
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- Identify opportunities and processes for cost effectiveness analysis activities to determine the need to revise a standard during the Enhanced Periodic Review or Standards Grading activities.
 - Identify any emerging interconnection-wide reliability issues which may need an industry guideline or a reliability standards solution, and provide the input to the NERC Reliability Issues Steering Committee for their consideration.
 - Identify opportunities to increase reliability or mitigate emerging risk(s) through the revision of standards and their associated requirements by notifying NERC and submitting a Standards Authorization Request (SAR) if necessary.
 - Identify any North American Electric Standards Review Board (NAESB) activities which may impact ERO standards e.g. NAESB commercial standards development activities as a result of FERC Order 2222 on DER Aggregator participation in Wholesale Markets.
 - Identify potential market related issues that reliability standards or DER and VER may cause during the NPCC RSC coordination and review process.
 - Participate in NPCC Compliance and Standards Workshops and NERC workshops and webinars to promote industry awareness.

NPCC estimates that it will expend approximately 6% of its resources on Reliability Standards development activities.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
Reliability Standards						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 957,193	\$ 957,193	\$ -	\$ 957,270	\$ 77	
Penalty Sanctions	11,483	11,483	-	9,553	(1,929)	
Total ERO Funding	\$ 968,675	\$ 968,675	\$ -	\$ 966,823	\$ (1,852)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 968,675	\$ 968,675	\$ -	\$ 966,823	\$ (1,852)	
Expenses						
Personnel Expenses						
Salaries	\$ 359,491	\$ 404,520	\$ 45,029	\$ 398,873	\$ 39,382	
Payroll Taxes	21,383	24,618	3,234	23,836	2,453	
Benefits	111,331	107,355	(3,976)	100,793	(10,538)	
Retirement Costs	38,780	43,116	4,335	42,512	3,731	
Total Personnel Expenses	\$ 530,986	\$ 579,608	\$ 48,622	\$ 566,014	\$ 35,028	
Meeting Expenses						
Meetings & Conference Calls	\$ 4,000	\$ 2,000	\$ (2,000)	\$ 3,000	\$ (1,000)	
Travel	72,720	36,360	(36,360)	54,540	(18,180)	
Total Meeting Expenses	\$ 76,720	\$ 38,360	\$ (38,360)	\$ 57,540	\$ (19,180)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 20,000	\$ 20,000	\$ -	\$ 20,000	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	2,000	2,000	-	2,242	242	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 22,000	\$ 22,000	\$ -	\$ 22,242	\$ 242	
Total Direct Expenses	\$ 629,706	\$ 639,968	\$ 10,262	\$ 645,796	\$ 16,090	
Indirect Expenses	\$ 333,603	\$ 333,603	\$ -	\$ 315,748	\$ (17,855)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 963,309	\$ 973,571	\$ 10,262	\$ 961,544	\$ (1,765)	
Change in Net Assets (=A-B)	\$ 5,366	\$ (4,896)	\$ (10,262)	\$ 5,279	\$ (87)	
Fixed Asset Additions, excluding Right of Use Assets (C)	5,366	5,366	-	5,279	(87)	
TOTAL BUDGET (=B+C)	\$ 968,675	\$ 978,938	\$ 10,262	\$ 966,823	\$ (1,852)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	\$ (10,262)	\$ (10,262)	\$ 0	\$ 0	

Table A - 2: Reliability Standards Budget Detail

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance Monitoring and Enforcement and Organization Registration and Certification Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	19.45	24.95	5.50
Direct Expenses	\$5,447,816	\$5,790,066	\$342,250
Indirect Expenses	\$3,526,402	\$4,258,335	\$731,934
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$56,727	\$71,199	\$14,472
Total Funding Requirement	\$9,030,944	\$10,119,600	\$1,088,656

Table A - 3: Compliance Monitoring and Enforcement and Organization Registration and Certification Budget

Program Scope and Functional Description

The NPCC Compliance Monitoring and Enforcement and Organization Registration and Certification Program (CORC) Program Area operates in accordance with NPCC's filed and approved Regional Delegation Agreement, the NERC Rules of Procedure (ROP), and individual Canadian Provincial MOUs and/or Agreements. The program supports Compliance Monitoring and Enforcement (Section 400 of the ROP) and Organization Registration and Certification (Section 500 of the ROP), the ERO Enterprise Long-Term Strategy, and aligns with NPCC Board of Director goals and strategies.

The CORC Program Area scope covers:

- 1) The identification, registration and certification of those entities responsible for meeting the NERC Reliability Standards and any approved Regional Standards;
- 2) The implementation of the risk-based NERC Compliance Monitoring and Enforcement Program (CMEP) in the United States, including the compliance monitoring, mitigation assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards;
- 3) In accordance with the relevant memorandums of understanding (MOU's), the implementation of the risk-based NERC CMEP in Ontario and Nova Scotia, including the assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards effective in those jurisdictions;
- 4) The implementation of the Québec Reliability Standards Compliance Monitoring and Enforcement Program (QCMEP), including the compliance monitoring, assessment and enforcement of NERC Reliability Standards and Regional Reliability Standards effective in Quebec; and
- 5) The implementation of the New Brunswick Compliance Monitoring and Enforcement Program (NBCMEP) in New Brunswick, including the compliance monitoring, assessment and enforcement recommendations of the NERC Reliability Standards and Regional Reliability Standards effective in New Brunswick.

Through the CORC Program Area, NPCC strives to be a strong enforcement authority that is independent, objective, fair, and promotes a culture of reliability excellence through risk-informed compliance monitoring, mitigation, enforcement, and registration. To accomplish this goal,

CORC is divided into three sub-program areas: Compliance Fundamentals; Compliance Audits and Investigations; and Compliance Mitigation and Enforcement.

Compliance Fundamentals

The Compliance Fundamentals sub-program area is responsible for registration and certification activities and for general compliance activities that span across the other two sub-program areas. The Compliance Fundamentals sub-program area:

- Collaborates across the ERO through participation in the Risk Performance and Monitoring Group (RPMG), Enforcement Group (EG), Organization Registration and Certification Group (ORCG), and the development of the annual ERO CMEP staff workshop;
- Identifies and registers the BES owners, operators, and users that are required to comply with the NERC and Regional Reliability Standards;
- Conducts Certifications and re-Certifications in accordance with the NERC ROP;
- Leads or assists with the development of the annual CMEP implementation plans (ERO Enterprise, Quebec, New Brunswick);
- Implements the ERO Enterprise registration tool (CORES -Centralized Organization Registration ERO System) and the ERO Enterprise CMEP data application (Align),
- Responds to any complaints submitted to NPCC;
- Maintains any NPCC specific compliance tools or programs needed;
- Conducts two stakeholder compliance workshops on an annual basis;
- Assesses compliance trends and conducts additional outreach, training, and education to support the implementation of Reliability Standards;
- Conducts Inherent Risk Assessments (IRA) on registered entities;
- Conducts ad-hoc evaluations of internal controls (EIC) on volunteering registered entities and,
- Develops compliance oversight plans (COP) for registered entities.

Compliance Audits and Investigations

The Compliance Audits and Investigations sub-program area is responsible for conducting all compliance monitoring activities. The Compliance Audits and Investigations sub-program area is focused on the most significant risks to the BPS. The Compliance Audits and Investigations sub-program area:

- Conducts NPCC compliance monitoring activities, including audits, spot checks, and guided self-certifications;
- Incorporates the results of the IRA and voluntary EIC into its compliance monitoring process;
- Assesses the maturity of the entity's internal controls during audits;
- Engages the entity on the maturity of the internal compliance program;
- Issues audit reports and spot check reports;
- Provides guided self-certification result letters; and,
- Implements and maintains the Critical Infrastructure Protection (CIP) Standards Technical Feasibility Exceptions process.

Compliance Mitigation and Enforcement

The Compliance Mitigation and Enforcement sub-program area is responsible for undertaking enforcement activities in accordance with risk-based approaches and conducting technical assessments of registered entities' plans and activities to mitigate noncompliance. Depending on the jurisdiction, enforcement either makes official recommendations to the appropriate regulatory

authority or assists and coordinates with NERC to make such official recommendations. The Compliance Mitigation and Enforcement sub-program area:

- Determines the relevant facts and circumstances necessary to understand each noncompliance;
- Evaluates and assigns a risk level to each noncompliance;
- Advises on the level of mitigation required to prevent recurrence of the issue;
- Evaluates and approves the mitigation activities or Mitigation Plan(s) for each noncompliance;
- Assesses the relevant compliance history for each noncompliance;
- Determines the disposition method for each noncompliance;
- Conducts settlement negotiations;
- Calculates penalty and non-penalty sanctions in consistent fashion;
- Files noncompliance closings with NERC/FERC and Canadian Regulators and,
- Evaluates registered entities for the self-logging program.

2022 Key Assumptions

- CORC activities will be cost effectively addressed with the addition of five FTEs (net increase of 5.50 FTEs compared to 2021 budget including the re-allocation of an employee formerly partially allocated to IT), offset by a decrease in consultants and contracts.
- The 2022 Business Plan projects the same number of enforcement processing activities as the 2021 Budget, however, the complexity of processing noncompliance is expected to continue to increase as entities' compliance history grows and technology continues to evolve and advance.
- One Compliance Investigation is projected for 2022. Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs).

2022 Goals and Key Deliverables

- Conduct scheduled compliance monitoring and enforcement activities pursuant to the 2022 Implementation Plans.
- Continue applying risk-based approaches for CMEP, registration, and certification activities.
- Identify potential issues related to NERC Reliability Standards as a result of compliance monitoring, enforcement and event analysis activities.
- Continue to implement compliance responsibilities in Canada based on the unique regulatory structure specific to each provincial and/or governmental jurisdiction.
- Evaluate monitoring, violation processing, risk-assessment, registration and certification program for sufficiency and effectiveness. Modify as needed.
- Collaborate within the ERO Enterprise to implement Align and the Secure Evidence Locker (SEL) for CMEP compliance processes, information systems, and methods among Regions.
- Provide education and outreach to the registered entities on all CMEP, registration, and certification topics, including the development and implementation of the ERO Enterprise Registration tool (CORES – Centralized Organization Registration ERO System) and the Align/SEL CMEP data application.
- Conduct one in-person and two virtual compliance workshops.
- Develop annual reports for QCMEP/CMEP activity in Québec and New Brunswick.

- Develop and/or provide input on various 2023 CMEP Implementation Plans (ERO Enterprise, Québec, New Brunswick).
- Attend training necessary and/or beneficial to performing Registration, Certification, Entity Risk Assessment, Monitoring, and Enforcement activities.
- Assure that NPCC staff is appropriately trained to conduct Certification and Auditing activities.
- Provide detailed responses to oversight activity performed by NERC, FERC, and other relevant authorities.
- Continue to perform and update IRAs for registered entities.
- Continue to perform ad-hoc EIC outreach for registered entities that volunteer for such an assessment.
- Continue to assess internal controls during monitoring engagements.
- Conduct 2022 compliance engagement schedule based on budget, risk to the BPS, and number of registered entities.
- Utilize the ERO risk-based initiatives by:
 - Utilizing the audit checklist and auditor’s handbook for all on-site and off-site audits.
 - Preparing an updated IRA as necessary for all scheduled engagements, performing an EIC for all entities that volunteer, and developing COPs for audited entities.
- Continue to perform comprehensive enforcement investigations to determine the relevant facts and circumstances necessary to understand each noncompliance, assess the risk, and evaluate the mitigation activities or Mitigation Plan for each noncompliance. Determine the disposition method in accordance with established risk-based approaches. (i.e. Compliance Exceptions, FFTs, Simplified Identification Correction Method (Québec), Settlements, etc.)
- Evaluate the mitigation activities or Mitigation Plan for each noncompliance, track the progress and verify the completion of each Mitigation Plan.
- As necessary, represent NPCC during any enforcement hearings before the NPCC Hearing Body, the NERC Hearing Body, the Régie, or the NBEUB.
- Evaluate registered entities internal compliance programs to determine entry into the self-logging program.
- Analyze noncompliance trends and associated risks to develop guidance to registered entities in support of a culture of reliability.
- Perform outreach (webinars, workshops) to educate entities on noncompliance root causes, techniques for noncompliance assessment, communication associated with self-reporting, and guidance on the development of mitigation activities that will prevent recurrence.
- Assess evolving cybersecurity risks for opportunities to provide entity guidance.

NPCC estimates that it will expend 57% of its resources on CORC activities.

Resource Requirements

Personnel

- Increase of 5.50 FTEs (including the re-allocation of an FTE formerly partially allocated to IT), to increase in-house expertise. Increase in personnel expenses will be partially offset by a decrease in consultants and contracts.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Funding sources and related expenses for the compliance enforcement and organization registration and certification section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures					
2021 Budget & Projection, and 2022 Budget					
Compliance Monitoring and Enforcement and Organization Registration and Certification					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)
Funding					
ERO Funding					
ERO Assessments	\$ 8,444,793	\$ 8,444,793	\$ -	\$ 9,196,118	\$ 751,325
Penalty Sanctions	121,378	121,378	-	128,838	7,460
Total ERO Funding	\$ 8,566,171	\$ 8,566,171	\$ -	\$ 9,324,956	\$ 758,785
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Misc Revenue	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-
Total Funding (A)	\$ 8,566,171	\$ 8,566,171	\$ -	\$ 9,324,956	\$ 758,785
Expenses					
Personnel Expenses					
Salaries	\$ 3,058,980	\$ 3,310,431	\$ 251,451	\$ 3,863,613	\$ 804,634
Payroll Taxes	214,978	245,369	30,391	286,998	72,021
Benefits	834,388	943,516	109,128	1,001,839	167,450
Retirement Costs	333,201	349,151	15,950	422,710	89,509
Total Personnel Expenses	\$ 4,441,546	\$ 4,848,466	\$ 406,920	\$ 5,575,160	\$ 1,133,614
Meeting Expenses					
Meetings & Conference Calls	\$ 12,000	\$ 6,000	\$ (6,000)	\$ 4,000	\$ (8,000)
Travel	269,120	134,560	(134,560)	161,472	(107,648)
Total Meeting Expenses	\$ 281,120	\$ 140,560	\$ (140,560)	\$ 165,472	\$ (115,648)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 707,150	\$ 381,000	\$ (326,150)	\$ 32,000	\$ (675,150)
Office Rent	-	-	-	-	-
Office Costs	18,000	18,000	-	17,434	(566)
Professional Services	-	-	-	-	-
Computer & Equipment Leases	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses, excluding Depreciation	\$ 725,150	\$ 399,000	\$ (326,150)	\$ 49,434	\$ (675,716)
Total Direct Expenses	\$ 5,447,816	\$ 5,388,026	\$ (59,790)	\$ 5,790,066	\$ 342,250
Indirect Expenses	\$ 3,526,402	\$ 3,526,402	\$ -	\$ 4,258,335	\$ 731,934
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 8,974,218	\$ 8,914,428	\$ (59,790)	\$ 10,048,401	\$ 1,074,184
Change in Net Assets (=A-B)	\$ (408,046)	\$ (348,256)	\$ 59,790	\$ (723,445)	\$ (315,399)
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 56,727	\$ 56,727	\$ -	\$ 71,199	\$ 14,472
TOTAL BUDGET (=B+C)	\$ 9,030,944	\$ 8,971,155	\$ (59,790)	\$ 10,119,600	\$ 1,088,656
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (464,773)	\$ (404,983)	\$ 59,790	\$ (794,644)	\$ (329,871)

Table A - 4: Compliance Monitoring and Enforcement and Organization Registration and Certification Budget Detail

Reliability Assessment and Performance Analysis Program

Reliability Assessment and Performance Analysis Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	5.44	6.45	1.01
Direct Expenses	\$2,312,599	\$2,624,913	\$312,314
Indirect Expenses	\$986,305	\$1,100,852	\$114,548
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$15,866	\$18,406	\$2,540
Total Funding Requirement	\$3,314,770	\$3,744,171	\$429,401

Table A - 5: Reliability Assessments and Performance Analysis (RAPA) Budget

Program Scope and Functional Description

NPCC, through its top technical committee, the Reliability Coordinating Committee (RCC), integrates the deliverables of its Task Forces' and Working Groups' Reliability Assessment and Performance Analysis (RAPA) related activities.

Seasonal assessments of the overall NPCC resource adequacy are performed and possible actions to mitigate any potential problems are identified. NPCC reviews operations and disturbances both internal and external to the Region in order to identify any lessons to be learned and recommends any necessary follow-up actions.

If appropriate, enhancements to Regional Standards or NPCC's more stringent, Regionally-specific reliability criteria requirements are also recommended. NPCC promotes and conducts both inter-Area and inter-Regional studies to enhance reliability and operational effectiveness and provides a forum for the discussion and coordination of operating issues within the NPCC Region and with other Regions.

2022 Key Assumptions

- Undertake special assessments and studies, including case-specific examples of real and potential impacts, to understand emerging risks from new technologies, and launch appropriate task forces to develop mitigation options. Some of these efforts may be in collaboration with state regulators, policymakers, and stakeholders, such as the National Association of Regulatory Utility Commissioners (NARUC), focusing on distributed energy resources and other risks emanating from events or conditions on the increasingly integrated distribution system that may cause cascading outages of the BPS.
- Integrate NERC and Regional Entity assessments to ensure that identified risks are being properly addressed and continue to monitor those risks to understand region-specific expressions of industry-wide issues and impacts.
- Develop measures of BPS and cyber resilience, including the ability to prepare for, withstand, and recover from extreme contingencies, such as high-impact, low frequency events, and identify processes and approaches to enhance resilience through NERC's reliability and security toolkit as well as industry action. Work in collaboration with the forums and Department of Energy (DOE).

- Use data analytics, research, and relationships with other critical infrastructures to identify leading indicators of emerging risks and the potential harm of currently unknown risks and prioritize and communicate these to industry for awareness and mitigation.
- Collaborate effectively with other non-profit organizations that share elements of the ERO Enterprise’s reliability and security mission, and seek out and work with representatives of academia, other critical infrastructures, and international experts to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them.
- Leveraging the Regional Entity’s specialized and localized point of view, strengthen and expand outreach, coordination, and collaboration with state energy regulators and related offices to address risks to reliability stemming from the relocation of resources and interdependency between the operations of distribution and the BPS.
- Strengthen proactive outreach and communications with key provincial, federal, and state regulatory, legislative, and policy bodies and associations across North America.

2022 Goals and Key Deliverables

Eastern Interconnection Reliability Assessment Group (ERAG)

The primary function of the Eastern Interconnection Reliability Assessment Group (ERAG) is to support reliability of the bulk-power system in the Eastern Interconnection through periodic reviews of generation and transmission expansion. These assessments are conducted by the ERAG Committee.

NPCC RAPA staff participates with the ERAG Committee as one of the four Eastern Interconnection Regional Entities and acts as the liaison between the ERAG Multiregional Modeling Working Group (MMWG), NPCC Reliability Coordinating Committee (RCC), NPCC Task Force on System Studies (TFSS) and the NPCC SS-37 Working Group on Base Case Development.

ERAG Committee Activities 2022 Goals and Deliverables

- Oversee the steady state and dynamic simulation base case data compilation and development.
- Oversee the ERAG assessment plan and coordinate assessment efforts with NERC Assessment Program staff. Determine the targeted ERAG assessment topic for 2022. Determine the method of assessment: analytical study, research effort, peer review.
- Make appropriate revisions, as necessary, to the ERAG Strategic Direction (i.e. anticipated new developments in MMWG process and system assessments).
- Develop and approve the ERAG activity budgets.

Multi-Regional Modeling Working Group 2022 Goals and Deliverables

- Facilitate the completion of the steady state and dynamic simulation base case data compilation and development for the 2022 series of cases.
- Check and confirm that the dynamic model data passes all applicable checks and acceptance criteria and emphasize the accurate modeling of distributed energy resources.
- Incorporate dispatch information into the future and seasonal MMWG base cases so that the dispatches are more closely aligned with economic dispatch practices.
- Continue to improve the representations of the governor-turbine plant control models.
- Apply MMWG base case non-disclosure agreement process so that MMWG cases continue to have sufficient protections in place for use and transmittal of confidential data and information.

ERAG System Assessments 2022 Goals and Deliverables

- Determine an appropriate topic of focus for the 2022 ERAG Assessment. In recent years, ERAG has conducted peer reviews on select topics in lieu of conducting assessments. Conduct the 2022 ERAG Assessment and prepare any associated documentation.
- Coordinate Assessment efforts with the NERC Reliability Assessment and Performance Analysis (RAPA) Program staff to incorporate any risk-based or other approaches to supplement NERC Assessments.

Bulk Electric System Notification and Exception (BESnet) application and Exception Request (ERs)

NPCC supports maintenance of the BESnet application and the processing of the Regional BES Exception Requests (ERs), including periodic certifications that the basis for an Element being included or excluded in the BES through the Exception remains valid. One NPCC Exclusion Exception Request is due for recertification in 2022. There are currently no pending or ongoing Exception Request that are expected to extend into 2022. However, Exception Requests are mainly entity driven and can be submitted at any time. NPCC resources, supplemented by contractor support would be utilized to process and evaluate submitted Exception Requests.

Furthermore, NPCC Staff may be requested to participate on other Regions' Technical Review Panel as part of the NERC Rules of Procedure, Appendix 5C – Procedure for Requesting and Receiving an Exception from the Application of the NERC Definition of Bulk Electric System.

2022 NERC Activities

NPCC will provide the Regional perspective with appropriate NPCC RAPA staff participation on selected NERC Technical Committees and key related NERC Subcommittees, Task Forces and Working Groups, including:

- Reliability and Security Technical Committee (RSTC)
- Inverter-Based Resource Performance Working Group (IRPWG)
- Performance Analysis Subcommittee (PAS)
 - Demand Response Availability Data System User Group (DADSUG)
 - Generating Availability Data System User Group (GADSUG)
 - Misoperation Information Data Analysis System User Group (MIDASUG)
 - Transmission Availability Data System User Group (TADSUG)
- Reliability Assessment Subcommittee (RAS)
 - Probabilistic Assessment Working Group (PAWG)
- Security Integration and Technology Enablement Subcommittee (SITES)
- Load Modeling Working Group (LMWG)
- System Protection and Control Working Group (SPCWG)
- Synchronized Measurement Working Group (SMWG)
- System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG)
 - SPIDERWG Studies Sub-Group
 - SPIDERWG Modeling Sub-Group
 - SPIDERWG Coordination Sub-Group
 - SPIDERWG Verification Sub-Group
- Electric-Gas Working Group (EGWG)
- Energy Reliability Assessment Task Force (ERATF)
- Electro Magnetic Pulse Task Force (EMPTF)

- ERO RAPA Steering Group (ERO RAPA-SG)
 - Reliability Assessment Ad Hoc Team
 - Performance Analysis Ad Hoc Team
 - Event Analysis Ad Hoc Team
 - Situational Awareness Ad Hoc Team
 - System Analysis Ad Hoc Team

ERO Enterprise Transformational activities

- ERO Proven Test Laboratories

ERO – Operations Leadership Team (OLT) 2022 Activities

- Provide analytic support for the ERO Executive Committee;
- Bulk Electric System Exception Process and BES Definition sub-team, under Organization Registration and Certification Group (ORCG);
- ERO-RAPA Steering Group; and,
- Other activities as directed by the ERO Executive Committee.

Task Force on Coordination of Planning

The primary mission of the NPCC Task Force on Coordination of Planning (TFCP) is to promote the reliable and efficient planning of the international interconnected bulk power systems in Northeastern North America through the coordination of NPCC Balancing Authority or Control Area (Area) and NERC planning processes and activities.

TFCP Reliability Assessment and Performance Analysis 2022 Goals and Deliverables

- Coordinate the development of additional Criteria as necessary and track any new and developing standards through the Regional Standards Committee (RSC).
- Continue Directory No. 1 review as per the recommendation from the Strategic Review of NPCC Regional Reliability Criteria.
- Oversee the Directory No. 1 Implementation Plan (Dated: September 30, 2015).
- Conduct through the CP-8 Working Group the seasonal reliability assessments and review the load shape assumption used in NPCC Multi-Area Probabilistic Reliability Assessments.
- Conduct through the CP-8 Working Group an update to the NPCC Interregional Long-Range Adequacy Overview and the NERC Probabilistic Assessment Study of the NPCC Region.
- Evaluate and approve Area Transmission Reviews.
- Evaluate and approve Area Reviews of Resource Adequacy.
- Coordinate, monitor, review, and make recommendations on the retirement of existing in-service Remedial Action Schemes (RAS); and the implementation of proposed new or modified RAS.
- Support related reliability activities including consideration of any requests for sub-regional assessments or NPCC's identification of the necessity for such assessments consistent with NERC Rules of Procedure section 805, associated with implementation of regional initiatives.
- Review the load shape assumption through the CP-8 Working Group used in NPCC Multi-Area Probabilistic Reliability Assessments.
- Monitor and review the development of NERC Standards through the RSC.

- Monitor the reliability issues associated with fuel supply, demand resources, energy efficiency, and conservation methods including all intermittent renewable resources, including distributed energy resources and make recommendations to NPCC as appropriate.
- Support the NPCC Regional Standards Committee ("RSC") as required.
- Members keep TFCP informed on studies and developments with neighboring systems which might impact NPCC.
- Monitor the actions of applicable NERC committees as a standing agenda item at the face-to-face TFCP meeting in the areas of resource and transmission adequacy, system protection and system control to determine their impact on the NPCC and any potential adjustments to Criteria.
- Lead the NPCC Task Forces in the on-going effort of reviewing and revising the NPCC Glossary of Terms (established in 2011 after NPCC Document A-7 was retired).
- Review Events Analysis Lessons Learned using the Events Analysis discussion/review template.
- Facilitate Wide-Area Planning through participation in regional activities and coordinate inter-Area reliability analysis.

Task Force on System Studies

The primary mission of the NPCC Task Force on System Studies (TFSS) is to provide active overall coordination of system studies of the reliability of the international interconnected bulk power systems in Northeastern North America and for the review of related NPCC documents.

TFSS Reliability Assessment and Performance Analysis 2022 Goals and Deliverables

- Review and recommend approval of Area Transmission Reviews.
- Review and classify new and modified Remedial Action Schemes.
- Review and recommend approval of changes to the NPCC list of bulk power system elements.
- Review and process Multiple Circuit Tower exclusions.
- Participate in the development and submission of NPCC comments/inputs into the development of regional and/or continent-wide reliability standards that address the NERC Reliability Standards.
- Provide support and technical input, for Task Force related Bulk Electric System risks as identified by the NERC Reliability Issues Steering Committee.
- Review existing NPCC Regional Criteria and procedures for validation of data used in power flow and dynamic simulations; propose changes to provide for adequate data validation.
- Perform investigation of Distributed Energy Resources modeling practices.
- Annually develop a library of power flow base cases and associated dynamic cases.
- Enable the annual review of the NPCC event replication procedure and ensure the preparedness of the NPCC Planning Coordinators to develop base cases for a required investigation of a major system event in or affecting NPCC and support the performance of event replication by benchmarking simulations against actual system performance.
- Work with software vendors and NERC to enhance the capability for dynamic simulations.
- Continue to investigate the use of dynamic load models for transient stability studies.
- Investigate the use of load monitoring equipment to aid in the benchmarking of dynamic load models used in transient stability studies.

- Develop voluntary guidelines for meeting Requirements of NERC Standard TPL-007 on Geomagnetic Disturbances.

Task Force on System Protection

The primary purpose of the NPCC Task Force on System Protection (TFSP) is to promote the reliable and efficient operation of the international interconnected bulk power systems in Northeastern North America through the establishment of directories, criteria, guidelines, and procedures and coordination of design, relative to NPCC protection systems.

TFSP Reliability Assessment and Performance Analysis 2022 Goals and Deliverables

- Assess proposed protection systems and remedial action schemes.
- Review and respond to Questions, Requests for Interpretations and/or Clarifications related to bulk power system protection requirements in NPCC Directories and Criteria.
- Participate in the ongoing development and submission of NPCC inputs/comments into the development of bulk electric system protection related NERC Reliability Standards.
- Manage the misoperations review and analysis of transmission and generation protection systems.
- Monitor the NPCC metric on protection system Entity Misoperation Risk Index Score (Entity MRI Score) to enhance NPCC ability to analyze the risks associated with misoperations and to encourage entities to take appropriate actions and mitigation plans to further reduce misoperation.
- Review mitigations and/or progress reports for Bulk Power System Risk Reduction Implementation.
- Provide support and technical input for related protection system risks as identified by the NERC Reliability Issues Steering Committee.
- Conduct review/development of related NPCC Directories.
- Consistent with the TFSP's scope, conduct joint meeting with other Regions to share best practices and experiences.
- Discuss NERC CIP standards and its impact on protection system design and operation.
- Discussion on how TOs are complying with PRC-026 and PRC-027 standards.

Task Force on Coordination of Operation

The NPCC Task Force on Coordination of Operation (TFCO) primarily facilitates the coordination of operations among the NPCC Reliability Coordinator areas and adjacent NERC Regions to enhance the reliability of the bulk power system.

TFCO Reliability Assessment and Performance Analysis 2022 Goals and Deliverables

- Prepare and conduct the spring and autumn NPCC System Operator Seminars.
- Develop and securely disseminate the annual compilation of "Facilities for Notification."
- Review a biennial summary of operating tool failures and lessons learned for the preceding study period.
- Support an annual enhanced, wide-area restoration drill among the Reliability Coordinator areas of NPCC and their neighboring Reliability Coordinators incorporating the annual review of the NPCC regional restoration plan.
- Support and take part in a biennial, continent-wide Grid Security Exercise (GridEx), including a review of the associated reports and Lessons Learned.

- Coordinate system awareness among NPCC RCs through periodic conference calls. This includes the existing emergency preparedness, NPCC weekly and daily system operator conference calls.
- Monitor the trends and impacts of the changing resource mix and the effects of the proliferation of the new resources (intermittent, DER, batteries, hybrid resources, etc.) on real-time operations, including energy sufficiency issues, behavior during and impacts on recovery and restoration plans, to support reliable integration of regulatory decarbonization goals and evaluate opportunities for a coordinated approach to enhancing system resilience and addressing energy sufficiency concerns.
- Review and analyze the performance of Simultaneous Activation of Reserve (SAR) implementation following an event to enhance the process.
- Conduct seasonal NPCC Reliability Assessment and incorporate the multi-area probabilistic simulation results in each assessment. Coordinate the NPCC input for the annual short-term NERC Reliability Assessment Subcommittee assessment.
- Develop respective scopes for and conduct reviews of applicable NPCC Directories, Criteria, Guides and Procedures in accordance with their applicable review dates.
- Assess the current capabilities of system operations communication systems.
- Consider, evaluate, and identify risk mitigating actions, tools and processes for various aspects of security (cyber and physical) in operations, and restoration activities.

NPCC estimates that it will expend 21% of its resources on Reliability Assessment and Performance Analysis activities.

Resource Requirements

Personnel

- Increase of one FTE to develop data analytics and visualization tools, to support the NERC ERO Analytical Community of Excellence initiative and to support the Reliability and Security Technical Committee's Energy Reliability Assessment Task Force on behalf of NPCC.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Consultants and Contracts

- Increase in consultants and contracts expense is associated with increase in inherent risk and emerging risk reliability assessments.

Reliability Assessment and Performance Analysis Program

Funding sources and related expenses for the Reliability Assessment and Performance Analysis section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2021 Budget & Projection, and 2022 Budget						
Reliability Assessment and Performance Analysis						
	2021	2021	Variance	2022	Variance	
	Budget	Projection	2021 Projection	Budget	2022 Budget	
			v 2021 Budget		v 2021 Budget	
			Over(Under)		Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 3,280,822	\$ 3,280,822	\$ -	\$ 3,710,864	\$ 430,043	
Penalty Sanctions	33,948	33,948	-	33,307	(642)	
Total ERO Funding	\$ 3,314,770	\$ 3,314,770	\$ -	\$ 3,744,171	\$ 429,401	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 3,314,770	\$ 3,314,770	\$ -	\$ 3,744,171	\$ 429,401	
Expenses						
Personnel Expenses						
Salaries	\$ 1,017,371	\$ 1,120,023	\$ 102,652	\$ 1,232,794	\$ 215,423	
Payroll Taxes	64,068	71,282	7,214	79,765	15,697	
Benefits	280,566	322,822	42,256	332,187	51,621	
Retirement Costs	110,034	120,694	10,660	133,166	23,133	
Total Personnel Expenses	\$ 1,472,039	\$ 1,634,822	\$ 162,782	\$ 1,777,913	\$ 305,873	
Meeting Expenses						
Meetings & Conference Calls	\$ 17,600	\$ 8,800	\$ (8,800)	\$ 17,250	\$ (350)	
Travel	172,960	86,480	(86,480)	129,720	(43,240)	
Total Meeting Expenses	\$ 190,560	\$ 95,280	\$ (95,280)	\$ 146,970	\$ (43,590)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 647,000	\$ 647,000	\$ -	\$ 692,000	\$ 45,000	
Office Rent	-	-	-	-	-	
Office Costs	3,000	3,000	-	8,030	5,030	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 650,000	\$ 650,000	\$ -	\$ 700,030	\$ 50,030	
Total Direct Expenses	\$ 2,312,599	\$ 2,380,102	\$ 67,502	\$ 2,624,913	\$ 312,314	
Indirect Expenses	\$ 986,305	\$ 986,305	\$ -	\$ 1,100,852	\$ 114,548	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 3,298,904	\$ 3,366,406	\$ 67,502	\$ 3,725,765	\$ 426,861	
Change in Net Assets (=A-B)	\$ 15,866	\$ (51,636)	\$ (67,502)	\$ 18,406	\$ 2,540	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 15,866	15,866	\$ -	\$ 18,406	\$ 2,540	
TOTAL BUDGET (=B+C)	\$ 3,314,770	\$ 3,382,272	\$ 67,502	\$ 3,744,171	\$ 429,401	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 0	\$ (67,502)	\$ (67,502)	\$ 0	\$ 0	

Table A - 6: Reliability Assessments and Performance Analysis (RAPA) Budget Detail

Training, Education, and Operator Certification Program

Training, Education, and Operator Certification Program Resources			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	0.10	0.10	0.00
Direct Expenses	\$223,835	\$155,578	(\$68,257)
Indirect Expenses	\$18,131	\$17,067	(\$1,063)
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	\$292	\$285	(\$6)
Total Funding Requirement	\$242,257	\$172,931	(\$69,326)

Table A - 7: Training, Education, and Operator Certification Budget

Program Scope and Functional Description

The NPCC Training, Education, and Operator Certification program supports NERC Rules of Procedure Section 900. The program provides education and training necessary to understand and operate the bulk electric system. The target audience of the program is bulk power system operating personnel - including system operations personnel, operations support personnel (engineering and information technology), supervisors and managers, and training personnel. NPCC staff training and development is incorporated within each respective program area.

This NPCC Program establishes and coordinates training for system operators relating to inter-Reliability Coordinator area matters, criteria, terminology, standards and operating procedures and instructions. It includes development and execution of training seminars, held twice yearly, at which:

- Potential operational problems for the coming season are discussed;
- Physical layouts and electrical characteristics of the NPCC and PJM Areas are discussed;
- Application of NPCC Directory and NERC Standard requirements pertinent to operation are discussed;
- Major industry issues that are important for system operators are discussed;
- Significant disturbances are reviewed for lessons learned; and
- Table-top drills and communication and coordination exercises are conducted.

The seminars promote camaraderie and better communication among system operators from the NPCC and PJM Reliability Coordinator (RC) Areas and the Nova Scotia Balancing Authority (BA) area, as well as Newfoundland and Labrador Hydro (NLH) Energy Control Center operations. PJM RC has significant interaction with the NPCC RCs and system operators from PJM have been regular participants at past seminars. With the completion of the DC links connecting Newfoundland and Labrador Hydro to the Quebec and Eastern Interconnections, NLH has been increasing their engagement with NPCC, including active participation in the system operator seminars. Examples of specific topics addressed at recent seminars include: 1) System Operators COVID-19 Pandemic Operations, 2) human performance related to system operations, 3) COVID-19 Impact to System Load, 4) cybersecurity threats and system operator concerns - Lessons Learned: Ukraine Cyberattack, 5) system restoration approaches and tie-ins to neighboring systems, including hot line restoration and 6) overview of NPCC and preview of the 2020 NERC Long-Term Reliability Assessment. Usually, control center or other pertinent visits are included as part of the seminar activities.

This Program also provides for:

- Sharing of RC/BA existing training program and system simulator area content;
- Verification and sharing of training methods;
- Evaluation of training and simulator aids as they become available;
- Opportunities to consolidate training among the NPCC RCs and BAs, which includes opportunities to share training material and training sessions; and
- Exchange of information on internal methods of system operator training.

2022 Key Assumptions

- Build appropriate outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability.
- Nurture relationships with key industry trade associations, as well as those associations representing technology, affiliated sectors, and end users to understand context and leverage their experience and reach.
- Collaborate effectively with other non-profit organizations that share elements of the ERO Enterprise’s reliability and security mission, and seek out and work with representatives of academia, other critical infrastructures, and international experts to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them.
- Provide the Regional perspective and support with appropriate NPCC Training and Education staff participation on selected NERC Committees, including the ERO Enterprise and NATF Electric Power Human Performance Improvement Symposium (EPHPIS) Organizing Committee.

Activities below further support the NPCC 2021-2024 Strategic Plan through targeted discussion of operational impacts and considerations in the specific Focus Areas, including:

- System resilience and critical infrastructure interdependencies,
- Reliably Integrating the Resources brought forward by Societal De-carbonization Objectives, including DERs, VERs, energy storage, etc.; and,
- Identifying and collaboratively advancing better practices to mitigation of security threats.

Funding Drivers and Reliability Benefits:

- System operators participating in the Seminars: 1) share various approaches to addressing operational problems and learn about the characteristics of neighboring systems; 2) gain exposure to NPCC issues and current industry operational topics; 3) review recent NPCC and PJM major external disturbances; 4) review key operational related content in NPCC Directories and NERC Standards; and 5) participate in hands-on “tabletop exercises” pertaining to system operational practices. PJM system operators and trainers are also invited to participate and normally attend and participate in these seminars.
- Seminar attendees also receive Continuing Education Hours (CEHs) (normally 3 CEHs) and operator trainers from each RC/BA area can utilize the seminar content by including it in their internal training programs to provide CEHs to all system operators; The seminars help to improve system operational coordination through better contact among system operators at other Reliability Coordinator Areas.
- Continually review and revise the curriculum of the training seminars to better emphasize NERC Standard requirements related to system operation, NPCC wide-area operations and Regionally-specific criteria and procedures.

- Enhance system operator awareness and knowledge of the standards, criteria and procedures that are applied in real time operation.
- Provide more sharing of training approaches, exchange of information on internal methods of system operator selection, training material and training sessions.
- Enhance efficiency and cost savings in the training programs in the NPCC RC/BA areas:
- Provide a forum among NPCC RC/BA areas for sharing of approaches to meet the requirements of the NERC PER and COM standards.
- NPCC will conduct one in-person and two virtual Standards and Compliance workshops in 2022, for NPCC Stakeholders, for the express purpose of providing the most current and applicable information related to the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP).

In addition to the Standards and Compliance workshops, NPCC regularly conducts System Operators seminars, specifically designed with tabletop exercises, targeted breakout classroom sessions and presentations on current industry related activities, to provide for the most efficient exchange of information between the NPCC and Areas’ training staff, NPCC Compliance and Standards staff and the NPCC Stakeholders. Presentations in the past have been conducted by FERC, NERC and Stakeholder representatives in addition to NPCC and Areas’ training staff members. To supplement these seminars and workshops, NPCC may develop webinars that will focus on specific topics pertinent to developments related to system operations, compliance program implementation, standards development or technical issues.

The System Operator seminars involve system operators’ participants from the NPCC RC/BA Areas and PJM, as well as Newfoundland and Labrador Hydro, and are held in early May and early November.

Additionally, NPCC staff participates on the ERO Enterprise and NATF Electric Power Human Performance Improvement Symposium (EPHPIS) Organizing Committee, members of which include the Regions and NERC, along with the North American Transmission Forum (NATF) and is charged with executing the administrative framework for organizing, planning and implementing the event and is collaborative in nature. EPHPIS is a continent-wide collaboration between the ERO Enterprise and the NATF focused on human performance improvement for the bulk power system (BPS).

2022 Goals and Key Deliverables

- Prepare and conduct the 2022 Spring and Fall NPCC System Operator Seminars.
- Continue collaboration and sharing of the intended RC/BA approaches, experiences and materials to task identification and training development.
- As needed, enhance the NPCC repository of training resources and learning verification activities addressing fundamental power system topics, training methods and operation procedure training exercises, which may be shared as elements of operator training in compliance with NERC Standards PER-003-1 “*Operating Personnel Credentials*” and PER-005-2 “*Operations Personnel Training*.”
- Develop on-line operational training webinars that focus on specific topics pertinent to compliance program implementation, standards development or technical issues.

- Conduct Spring and Fall 2021 Standards and Compliance workshops addressing the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP).
- Support EPHPIS Organization Committee activities and execution of the HP symposium.
- Participate on the Reliability Training WG and collaborate with the NPCC CO-2 Operations Training WG and other NPCC Members' training personnel on the activities related to the reliable operation of the BES.

NPCC estimates that it will expend 1% of its resources on training, education, and operator certification activities.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022. NPCC began holding virtual Standards and Compliance Workshops during 2020 due to the COVID-19 pandemic. Based on high levels of participation and positive feedback on the virtual workshop format, NPCC plans to hold two virtual workshops and one in-person workshop in 2022.

Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2021 Budget & Projection, and 2022 Budget						
Training, Education, and Operator Certification						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 174,133	\$ 174,133	\$ -	\$ 138,664	\$ (35,469)	
Penalty Sanctions	624	624	-	516	(108)	
Total ERO Funding	\$ 174,757	\$ 174,757	\$ -	\$ 139,181	\$ (35,576)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	-	(67,500)	33,750	(33,750)	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 242,257	\$ 174,757	\$ (67,500)	\$ 172,931	\$ (69,326)	
Expenses						
Personnel Expenses						
Salaries	\$ 18,352	\$ 23,909	\$ 5,558	\$ 23,642	\$ 5,290	
Payroll Taxes	1,068	1,518	450	1,471	403	
Benefits	6,091	6,863	771	6,283	192	
Retirement Costs	2,324	2,462	138	2,434	110	
Total Personnel Expenses	\$ 27,835	\$ 34,752	\$ 6,917	\$ 33,830	\$ 5,995	
Meeting Expenses						
Meetings & Conference Calls	\$ 184,000	\$ 28,000	\$ (156,000)	\$ 112,400	\$ (71,600)	
Travel	12,000	6,000	(6,000)	9,000	(3,000)	
Total Meeting Expenses	\$ 196,000	\$ 34,000	\$ (162,000)	\$ 121,400	\$ (74,600)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	348	348	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ -	\$ -	\$ -	\$ 348	\$ 348	
Total Direct Expenses	\$ 223,835	\$ 68,752	\$ (155,083)	\$ 155,578	\$ (68,257)	
Indirect Expenses	\$ 18,131	\$ 18,131	\$ -	\$ 17,067	\$ (1,063)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 241,965	\$ 86,883	\$ (155,083)	\$ 172,645	\$ (69,320)	
Change in Net Assets (=A-B)	\$ 292	\$ 87,875	\$ 87,583	\$ 285	\$ (6)	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 292	\$ 292	\$ -	\$ 285	\$ (6)	
TOTAL BUDGET (=B+C)	\$ 242,257	\$ 87,174	\$ (155,083)	\$ 172,931	\$ (69,326)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (0)	\$ 87,583	\$ 87,583	\$ (0)	\$ 0	

Table A - 8: Training, Education, and Operator Certification Budget Detail

Situation Awareness and Infrastructure Security Program

Situation Awareness and Infrastructure Security Program Resources			
<i>(in whole dollars)</i>			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	5.40	5.60	0.20
Direct Expenses	\$1,411,680	\$1,489,849	\$78,169
Indirect Expenses	\$979,052	\$955,779	(\$23,274)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	\$15,749	\$15,980	\$231
Total Funding Requirement	\$2,406,482	\$2,461,608	\$55,126

Table A - 9: Situation Awareness and Infrastructure Security Budget

Program Scope and Functional Description

The Situation Awareness and Infrastructure Security (SAIS) Program is the combination of near real-time awareness of conditions on the bulk power system with the programs necessary to increase the physical and cyber security of the electricity infrastructure, including the operation and maintenance of tools and other support services for the benefit of Reliability Coordinators and the system operators within the registered entities. Maintaining the real-time awareness of conditions on the interconnected bulk power systems by the NPCC Reliability Coordinators is critical to maintaining reliable operation within NPCC, including the communication of information concerning system conditions and abnormal events among the neighboring system operators responsible for the reliable operation of the bulk power systems. When an event does occur, it is critical to provide a forum for active coordination of reliability and operation among the NPCC Reliability Coordinator areas and neighboring NERC Regions and to use an event as a learning opportunity to enhance the reliability of the interconnected bulk power system through the lessons learned, which can be gleaned from such an event.

NPCC’s Event Analysis Program resides within the SAIS program area and supports the overall goal of promoting the reliability of the bulk power system in Northeastern North America and the entire North American grid. NERC, Regions and the industry analyze events, identify the lessons to be learned, and conduct a formal cause code analysis. The Event Analysis Program recognizes that many events, which occur on the bulk power system beyond those identified through NERC Reliability Standard EOP-004, “Event Reporting,” can have varying levels of significance to the electric system. By implementing a “bottom-up” approach to an event review within the framework of the NERC Event Analysis Program consistency, comparability, flexibility, quality and timeliness in the event analysis process will be promoted by NPCC, the registered entities and NERC in a collaborative initiative, resulting in industry lessons learned and trends identify and prioritizing possible reliability concerns.

2022 Key Assumptions

- Use the full suite of tools, activities and resources for risk mitigation to provide guidance to industry as to how to mitigate emerging risks, evaluating the effectiveness of such approaches.
- Build/enhance appropriate outreach, training, and education to registered entities to reduce the incidence of known risks to reliability.

-
- Develop measures of BPS and cyber resilience and identify processes and approaches to enhance resilience through NERC’s reliability and security toolkit as well as industry action. Work in collaboration with the forums and Department of Energy (DOE).
 - Strengthen the analysis of cyber impacts on the BPS and mitigate impacts of cyberattacks. Enhance industry’s ability to develop approaches to pre-position the system when under attack and explore recovery strategies.
 - Leverage information and cross-sector collaboration with other critical infrastructures to identify leading indicators of emerging risks and the potential harm of currently unknown risks and prioritize and communicate these to industry for awareness and mitigation.
 - Build appropriate outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability.
 - Ensure the E-ISAC Long-Term Strategic Plan is executed such that the E-ISAC is viewed by industry as meeting its needs as one of its key trusted sources of security information
 - Collaborate with other sectors’ security infrastructure where appropriate (e.g., the Financial Systemic Analysis and Resilience Center and the Downstream Natural Gas Information Sharing and Analysis Center) to facilitate cross-sector information sharing and threat analysis.
 - Strengthen proactive outreach, communications, relationships and intelligence sharing with key regulatory, legislative, and policy bodies as well as government agencies across North America (US and Canada).
 - Nurture relationships with key industry trade associations, as well as those associations representing technology, affiliated sectors, and end users to understand context and leverage their experience and reach.
 - Collaborate effectively with other non-profit organizations, other critical infrastructure experts that share elements of the ERO Enterprise’s reliability and security mission, and to broaden the ERO Enterprise’s collective knowledge and awareness of current and unknown risks and strategies to address them.
 - Leveraging the Regional Entities’ specialized and localized point of view, strengthen and expand outreach, coordination, and collaboration with state energy regulators and related offices to address risks to reliability stemming from the relocation of resources and interdependency between the operations of distribution and the BPS.

NPCC will provide the Regional perspective and support with appropriate NPCC SAIS and EA staff participation on selective NERC Committees, including:

- Event Analysis Subcommittee (EAS)
- Event Analysis Ad Hoc Team
- Situational Awareness Ad Hoc Team
- NERC Physical Security Advisory Group (PSAG)

Activities below further support the NPCC 2021-2024 Strategic Plan through targeted discussion of operational impacts and considerations in the specific Focus Areas, including targeted activities, such as:

- Enhancing System Resilience and Assuring Energy Sufficiency
 - Assessing gas-electric interdependencies, as well as other common mode failure and single points of disruption scenarios involving communications, water, and other interdependent critical infrastructure sectors.

-
- Addressing Cyber and Physical Threats
 - Developing Regional concurrence on appropriate levels of cyber resilience, the adequacy of security controls, and methodologies to simulate cyber impacts on BPS reliability;
 - Expanding Regional support for and interaction with the E-ISAC and enhancing actionable information sharing within Northeastern North America; and,
 - Identifying and collaboratively advancing better practice approaches to mitigating cyber and physical security threats.

The monitoring of Lessons Learned will continue to be a major focus of NERC and NPCC in 2022, including:

- Continued reporting and processing of qualifying events in the voluntary Event Analysis Program (EAP);
- Consideration and collaboration with E-ISAC on analysis process of security related events, including notifications related to CIP-008-6 – Cyber Security – Incident Reporting and Response Planning; and,
- Analysis of non-EAP qualifying events, continued utilization of a revised Category 1h - EMS/Loss of monitoring or control at a Control Center events Brief Report template and Addendum, developed with the input of the EMS Working Group to ensure continuation of analysis of such events to improve information collection related to such events and associated analysis, taking into account the modifications to the mandatory EOP-004-4 reporting requirements thresholds.
- TFIST support of the following activities:
 - Supply Chain – new version of the Standard, more guidelines by RSTC’s Supply Chain WG and industry (like NATF)
 - Virtualization – updates to most CIP Standards
 - CIP-012 – development and implementation of the new version of the Standard (version 2)
 - CIP-008 – assist in new metrics and follow up on NPCC incidents.
 - Coordinate TFIST activities with:
 - NERC’s Security Integration and Technology Enablement Subcommittee (SITES),
 - NERC’s Security Working Group (SWG),
 - NERC’s Evidence Request Tool team
 - IST-4 WG – update CIP-012 version 1 implementation suggestions for version 2
 - Grid Ex VI - implement recommendations.
 - BES Cyber Systems Information (BCSI) - CIP updates approval and registered entities’ implementation
 - IST-2 WG
 - Annual report on previous year’s monthly tests of cross-border emergency telecommunications
 - Monthly tests of cross-border emergency telecommunications
 - Development of the Ring Down NPCC Guideline (Type “B”) Document
 - Implementation of applicable findings and recommendations from NPCC’s 2021 telecommunications during restoration goal
 - Activities pertaining to the new CIP-002 version of the standard.

- Resource allocation to this program area supports expanded Events Analysis activities; coordination with NERC’s evolving E-ISAC capabilities; and physical and cyber security outreach efforts, including support of NERC’s ERO Enterprise Security Initiative and cross-sector collaboration activities.
- Support DOE-led effort on the development of the North American Energy Resilience Model (NAERM) in collaboration with the National Labs, the industry and the ERO Enterprise.
- Further activities in the cross-sector interdependencies, including natural gas and communications.

2022 Goals and Key Deliverables

Situation Awareness 2022 Goals and Key Deliverables

- NPCC will provide the Regional perspective through NPCC staff support of the NERC Reliability and Security Technical Committee and participation on the key related NERC Subcommittees, Task Forces and Working Groups, including the Event Analysis Subcommittee, the ERO – Event Analysis and Situational Awareness Group. Work directly with applicable NPCC Task Forces and Working Groups to provide an in-depth assessment of Lessons Learned unique to the NPCC Members and NPCC Criteria.
- Situation Awareness:
 - Monitor the operational status of the bulk power system and coordinate normal and pre-emergency communication, awareness and assistance in addition to the same during an emergency among the Reliability Coordinators within NPCC. These events include contingencies on the bulk power system, potential shortfalls of operating reserve, operating problems, potential security threats and potential threats or disruptions to the cyber systems.
 - Prepare daily reports and conduct daily and weekly conference calls to serve as a complement to the NPCC Emergency Preparedness Conference Call. The participants of the calls are the Reliability Coordinators within NPCC and its neighboring RCs, the Midcontinent ISO and PJM.
 - Monthly test of the satellite telephone network, to ensure the capability for continued voice communications among NPCC and its Reliability Coordinators.
 - Monthly test of the NPCC Emergency Preparedness Communications Procedure, as required.
 - Coordination and communication with the NERC Bulk Power System Awareness group in preparation for and during ongoing significant events in the NPCC’s footprint.
 - Participation in the ERO Enterprise-wide Situation Awareness activities, including NERC SA Oversight Plan specified goals and deliverables in support of the activities to identify, prioritize, and assure effective and efficient mitigation of risk to the reliability and security of the North American Bulk Power System (BPS).
 - Monitor the status of the bulk power system through the NERC Situational Awareness-FERC, NERC, Regions version 3 (SAFNRv3) tool.
 - Coordinating inter-Regional pre-emergency actions in the event of a threat to the security of the Northeastern North American bulk power supply system.
 - Assisting in the development and performance of real-time operating tools ensuring cyber security concerns are addressed.

-
- Review and implementation of applicable recommendations and lessons learned from the planning and distributed play activities of the GridEx VI wide-area exercise.
 - Participation in the ERO Enterprise-wide SA activities, including NERC SA Oversight Plan specified goals and deliverables in support of the activities to identify, prioritize, and assure effective and efficient mitigation of risk to the reliability and security of the North American Bulk Power System (BPS), including such activities as:
 - NERC Bulk Power Situational Awareness calls
 - Participation in the ERO Enterprise Crisis Action Plan (CAP) tabletop exercises and enhancements to the CAP processes
 - Participation in the ERO Enterprise CAP activations
 - Support implementation and activities of NPCC’s Emergency Communications Plan.
- Events Analysis:
 - Continue to promote, implement and manage voluntary ERO Event Analysis Process (EAP) and Cause Coding process as part of the ERO Event Analysis Program, including review and analysis of applicable, qualifying events, development of lessons learned and cause coding of events.
 - Promote NPCC’s Event Analysis group’s process for sharing and dissemination of the detailed Event Analysis Report information among industry participants (registered entities).
 - Participation in the ERO Enterprise-wide Events Analysis activities, including NERC EA Oversight Plan specified goals and deliverables in support of the activities to identify, prioritize, and assure effective and efficient mitigation of risk to the reliability and security of the North American Bulk Power System (BPS).
 - Work directly with applicable NPCC Task Forces and Working Groups to provide an in-depth assessment of Lessons Learned unique to the NPCC Members and NPCC Criteria and development of Regional Insights, as applicable.
 - Support ERO Enterprise lessons learned development through participation on the NPCC events lessons learned review teams, as well as lessons learned from other Regional Entities and NERC.

Infrastructure Security 2022 Goals and Deliverables

NPCC’s critical infrastructure security objectives are defined within the scope of the NPCC Task Force on Infrastructure Security & Technology, and include, but are not limited to:

- Providing a forum for NPCC review of proposed and posted documents from the NERC Reliability and Security Technical Committee (RSTC) and its subgroups; and,
- Representing and advocating NPCC’s position in the activities of NERC groups involved in the development and/or implementation of physical and cyber security.

NPCC’s physical and cyber security outreach efforts, will supplement infrastructure security focus areas and support the ERO Enterprise contributing activity of “Strengthen relationships and intelligence sharing with key government agencies, such as the DOE as the U.S. electricity sector-specific agency, the Department of Homeland Security (DHS), as well as Natural Resources Canada (NRCan), Canada’s Communications Security Establishment” and “Build appropriate

outreach, training, and education to registered entities through NERC and the Regional Entities to reduce the incidence of known risks to reliability” as it pertains to the operational security (both cyber and physical). Security outreach activities will include development of periodic Security Bulletins, presenting to TFIST, development/promotion of best practice, expand interaction & engagement with the E-ISAC, and perform Cyber Outreach sessions to assess entity implementation of CIS Critical Security Control.

Furthermore, NPCC’s Security Outreach program will support ERO Enterprise activities aimed at addressing known and emerging security risks to strengthen and enhance industry security posture through active participation and engagement in the ERO Enterprise and industry activities, including:

- ERO Enterprise Security Initiative - with focus on the development, coordination and promotion of physical and cyber security efforts, including sharing of best practices; development of security training and participation in regional and continent-wide security exercises; and supporting NERC, the Regions and industry on matters related to the interface between reliability and security, including providing support for the implementation of risk mitigation priorities recommended by the Reliability Issues Steering Committee (RISC). These efforts will bolster the ongoing security efforts of industry and the ERO Enterprise as a whole.
- Reliability and Security Technical Committee’s Security Integration and Technology Enablement Subcommittee activities

NPCC’s Physical Security Working Group – an NPCC group of physical security experts formed to discuss, in a secure environment, emerging threats, trends and new security technologies and strategies utilized by NPCC registered entities for the protection of their facilities in the physical arena. The Working Group is tasked with developing approaches to physical security that will enhance the reliability and resiliency of the BPS and further address any physical security issues that could challenge efficient operation of the BPS, including pertinent items identified in the biennial RISC report, under Physical and Cyber Security Vulnerabilities. The Group will function as a clearinghouse for intelligence information received from Federal, State and Local partners and will disseminate such information received to NPCC registered entities. In addition, the Working Group shall develop, review, and provide regional input on various industry physical security initiatives, working groups, and task forces, as appropriate.

Infrastructure Security 2022 Goals and Deliverables:

- Monitor the reliable implementation of the Cyber Security Standards.
- Monitor the Homeland Security Information Network (HSIN), E-ISAC, NERC Alerts, Canadian Information Sharing and North American Transmission Forum and share information with CO-8.
- Review and submit comments on NERC proposed Reliability Standards, modified Reliability Standards, proposed Guidelines, and modified Guidelines related to Infrastructure Security and Technology.
- Keep current on all governmental agencies regarding applicable security recommendations and requirements, and other applicable security and reliability recommendations and keep the RCC and its committees appropriately informed, e.g. Sector Specific Plan and Notice of Inquiry.
- Provide support and technical input for TFIST and PSWG related to the Bulk Power System risks as identified by the NERC Reliability Issues Steering Committee;

support, discuss and coordinate activities and approaches identified in the recommendations for mitigating security risks.

- Support NERC GridEx VI activities and after-action report development and review and of pertinent recommendations and lessons learned of the exercise.
- Review infrastructure security & technologies and provide recommendations to RCC to enhance physical and cyber security in compliance with NERC guidelines/standards.
- Provide recommendations to RCC to enhance physical and cyber security, in compliance with NERC standards, based on assessments of available and emerging infrastructure security technologies, methodologies, and best practices.
- Sponsor periodic workshop presentations to address timely issues and update NPCC Entities associated with infrastructure security and technology.
- Provide education, awareness, and support for Cross Sector coordination in Entity agreements and response plans with focus upon Telecommunications, Water and Natural Gas, including monitoring and sharing with the E-ISAC.
- Provide physical and cyber security outreach services to registered entities.
- Support ERO Enterprise Security Initiative and grow coordination and collaboration with the ERO, E-ISAC, other NERC Regions and US and Canadian federal, state and local Authorities.
- Physical Security Working Group shall exchange information regarding approaches to physical security that will enhance the reliability and resiliency of the BPS and further address any physical security threats that could challenge efficient operation of the BPS. The Physical Security Working Group will also support TFIST in their work on issues related to Physical Security.
- Conduct an annual review of cross border emergency telecommunications to verify each Area can communicate with each other.
- Provide a forum for members of NPCC, NPCC Task Forces and Working Group to identify and discuss cyber security issues and practices related to the bulk power system, including Bulk Electric System cyber security topics that span one or more Task Forces or Working Groups.

NPCC estimates that it will expend 15% of its resources on situation awareness and infrastructure security activities.

Resource Requirements

Personnel

- Increase of 0.20 FTE to support security outreach.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Consultants and Contracts

- Decrease in consultants and contracts based on planned utilization.

Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures						
2021 Budget & Projection, and 2022 Budget						
Situation Awareness and Infrastructure Security						
	2021	2021	Variance	2022	Variance	
	Budget	Projection	2021 Projection	Budget	2022 Budget	
			v 2021 Budget		v 2021 Budget	
			Over(Under)		Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ 2,372,783	\$ 2,372,783	\$ -	\$ 2,432,690	\$ 59,907	
Penalty Sanctions	33,699	33,699	-	28,918	(4,781)	
Total ERO Funding	\$ 2,406,482	\$ 2,406,482	\$ -	\$ 2,461,608	\$ 55,126	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
Total Funding (A)	\$ 2,406,482	\$ 2,406,482	\$ -	\$ 2,461,608	\$ 55,126	
Expenses						
Personnel Expenses						
Salaries	\$ 885,454	\$ 994,972	\$ 109,519	\$ 1,009,298	\$ 123,844	
Payroll Taxes	60,595	68,001	7,405	68,007	7,412	
Benefits	233,918	204,051	(29,867)	202,785	(31,133)	
Retirement Costs	96,873	108,460	11,587	110,066	13,193	
Total Personnel Expenses	\$ 1,276,840	\$ 1,375,484	\$ 98,644	\$ 1,390,155	\$ 113,316	
Meeting Expenses						
Meetings & Conference Calls	\$ 6,400	\$ 3,200	\$ (3,200)	\$ 4,800	\$ (1,600)	
Travel	75,440	37,720	(37,720)	56,580	(18,860)	
Total Meeting Expenses	\$ 81,840	\$ 40,920	\$ (40,920)	\$ 61,380	\$ (20,460)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 50,000	\$ 30,000	\$ (20,000)	\$ 30,000	\$ (20,000)	
Office Rent	-	-	-	-	-	
Office Costs	3,000	3,000	-	8,313	5,313	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
Total Operating Expenses, excluding Depreciation	\$ 53,000	\$ 33,000	\$ (20,000)	\$ 38,313	\$ (14,687)	
Total Direct Expenses	\$ 1,411,680	\$ 1,449,404	\$ 37,724	\$ 1,489,849	\$ 78,169	
Indirect Expenses	\$ 979,052	\$ 979,052	\$ -	\$ 955,779	\$ (23,274)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 2,390,732	\$ 2,428,457	\$ 37,724	\$ 2,445,627	\$ 54,895	
Change in Net Assets (=A-B)	\$ 15,749	\$ (21,975)	\$ (37,724)	\$ 15,980	\$ 231	
Total Funding (A) Requirement	\$ 2,374,983	\$ 2,374,983	\$ 37,724	\$ 2,429,647	\$ 54,664	
Fixed Asset Additions, excluding Right of Use Assets (C)	15,749	15,749	-	15,980	231	
TOTAL BUDGET (=B+C)	2,406,482	2,444,206	37,724	2,461,608	55,126	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (0)	\$ (37,724)	\$ (37,724)	\$ -	\$ (0)	

Table A - 10: Situation Awareness and Infrastructure Security Budget Detail

Administrative Services

Administrative Services Program Resources						
(in whole dollars)						
	Direct Expenses			FTEs		
	2021 Budget	2022 Budget	Increase (Decrease)	2021 Budget	2022 Budget	Increase (Decrease)
Technical Committees and Members Forum	\$35,729	\$43,474	\$7,746	0.10	0.10	0.00
General and Administrative	\$3,874,497	\$3,367,214	(\$507,283)	2.73	2.50	-0.23
Legal and Regulatory	\$748,924	\$825,477	\$76,553	2.00	2.00	0.00
Information Technology	\$1,341,144	\$2,015,000	\$673,857	2.55	3.85	1.30
Human Resources	\$67,066	\$76,331	\$9,265	0.50	0.50	0.00
Finance and Accounting	\$735,648	\$789,852	\$54,204	2.00	2.00	0.00
Total Administrative Services ¹	\$6,803,007	\$7,117,349	\$314,342	9.88	10.95	1.07

NPCC's 2022 Administrative Services Direct Expenses and Fixed Assets total \$7,117,349 of which \$358,417 is allocated to NPCC's Criteria Services division, which is a non-statutory function. As a result of the allocation to the Criteria Services division, the Administrative Expenditures included in the 2022 statutory budget are \$6,758,932 which is an increase of \$343,920 from the 2021 budget of \$6,415,012.

Table A - 11: Administrative Services Budget

Program Scope and Functional Description

Administrative services support the previously identified five program areas of: reliability standards; compliance monitoring and enforcement and organization registration and certification; training, education, and operator certification; reliability assessment and performance analysis; and situation awareness and infrastructure security. Administrative services consist of: technical committees and members' forums; general and administrative; legal and regulatory; information technology; human resources; and finance and accounting.

Methodology for Allocation of Administrative Services Expenses to Programs

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Administrative Services

Funding sources and related expenses for the Administrative Services section of the 2022 business plan are shown in the table below. Explanations of variances by expense category are included within the Supplemental Tables found in Section B.

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
ADMINISTRATIVE SERVICES						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ (75,140)	\$ (75,140)	\$ -	\$ (523,294)	\$ (448,154)	
Penalty Sanctions	-	-	-	-	-	
Total ERO Funding	\$ (75,140)	\$ (75,140)	\$ -	\$ (523,294)	\$ (448,154)	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	56,264	15,275	(40,989)	28,465	(27,799)	
Total Funding (A)	\$ (18,876)	\$ (59,865)	\$ (40,989)	\$ (494,829)	\$ (475,953)	
Expenses						
Personnel Expenses						
Salaries	\$ 2,642,472	\$ 2,443,800	\$ (198,672)	\$ 2,544,187	\$ (98,285)	
Payroll Taxes	123,675	135,466	11,791	135,739	12,063	
Benefits	554,948	607,868	52,920	590,851	35,903	
Retirement Costs	328,620	284,684	(43,936)	330,517	1,897	
Total Personnel Expenses	\$ 3,649,716	\$ 3,471,819	\$ (177,897)	\$ 3,601,294	\$ (48,422)	
Meeting Expenses						
Meetings & Conference Calls	\$ 110,400	\$ 25,200	\$ (85,200)	\$ 89,150	\$ (21,250)	
Travel	125,680	26,840	(98,840)	94,260	(31,420)	
Total Meeting Expenses	\$ 236,080	\$ 52,040	\$ (184,040)	\$ 183,410	\$ (52,670)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 85,650	\$ 85,650	\$ -	\$ 65,650	\$ (20,000)	
Office Rent	870,141	870,141	-	906,141	36,000	
Office Costs	811,420	1,055,420	244,000	1,181,703	370,283	
Professional Services	1,005,000	1,005,000	-	1,017,000	12,000	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
Total Operating Expenses, excluding Depreciation	\$ 2,823,211	\$ 3,067,211	\$ 244,000	\$ 3,221,494	\$ 398,283	
Total Direct Expenses	\$ 6,709,007	\$ 6,591,070	\$ (117,937)	\$ 7,006,199	\$ 297,192	
Indirect Expenses	\$ (6,231,487)	\$ (6,231,487)	\$ -	\$ (7,006,199)	\$ (774,712)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 477,520	\$ 359,583	\$ (117,937)	\$ 0	\$ (477,520)	
Change in Net Assets (=A-B)	\$ (496,396)	\$ (419,448)	\$ 76,947	\$ (494,829)	\$ 1,567	
Total Funding (A) Requirement	\$ (323,075)	\$ (323,075)	\$ (76,947)	\$ (323,075)	\$ -	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ -	\$ 22,000	\$ 22,000	\$ -	\$ -	
TOTAL BUDGET (=B+C)	\$ 477,520	\$ 381,583	\$ (95,937)	\$ 0	\$ (477,520)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (496,396)	\$ (441,448)	\$ 54,947	\$ (494,829)	\$ 1,567	

Table A - 12: Administrative Services Budget Detail

Technical Committees and Member Forums

Program Scope and Functional Description

The success of the NPCC programs depends on the active and direct volunteerism and participation of its members. The stakeholders are the source of subject matter expertise in the industry. To promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America, NPCC invites high-level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior executives within NPCC and NERC to identify and discuss emerging issues related to the reliability of the NPCC Region.

2022 Key Assumptions

- NPCC’s standing committee and subgroup structure for effective stakeholder involvement will continue in 2022.
- NPCC will continue to utilize methods to encourage active involvement in its Regional programs that require less stakeholder travel and face-to-face meetings, as the economy improves in 2022.
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability.

2022 Goals and Deliverables

- The 2022 NPCC General Meeting provides an opportunity for NPCC Members to meet high level policy makers from Federal, Provincial and State regulatory and/or governmental authorities and senior NERC and NPCC executives to discuss topics related to the reliable planning and operation of the power system, including consideration of emerging reliability, critical infrastructure and environmental issues.
- The objective of the NPCC Public Information Committee is to highlight and summarize NPCC activities and accomplishments in the past year, disseminate and coordinate the appropriate release of information to the media, respond to related requests for information, and coordinate with related NPCC Area, NERC media and public information activities. Activities anticipated include, but are not limited to:
 - Conducting an annual Media Release Event for the Summer NPCC Reliability Assessment
 - Preparing other NPCC media releases and statements on an as-needed basis
 - Responding to media inquiries (and coordinating responses)
 - Participating in the ERO Communications Group’s 2021 Work Plan activities, including:
 - Information sharing/education of key audiences/stakeholders to further ERO Enterprise’s mission;
 - Coordination/planning for outreach communications and crisis/media relations; and,
 - Consistent/coordinated outreach to support public and regulatory confidence of ERO Enterprise and its activities.
 - Periodic update of NPCC’s Emergency Communications Plan (A Guide for Media Communications During Emergencies).

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

General and Administrative

Program Scope and Functional Description

The NPCC general and administrative function provides executive management of the corporation, management of NPCC office, and other administrative support programs.

NPCC total overhead expenses, such as office rent and office costs, will be charged to the Administrative Services Programs and then reallocated proportionately based on FTE to the programs through Indirect Expenses.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Legal and Regulatory

Program Scope and Functional Description

To ensure and maintain independence and objectivity consistent with ERO Enterprise value drivers, NPCC's in-house professional services develop corporate policies and procedures, evaluate internal controls and corporate, operational, strategic and reputational risk, and participate in risk identification, evaluation and mitigation activities. In-house professional legal services provide advice and advance significant strategic planning initiatives, assisting in the development of NPCC's strategic focus areas and their alignment with ERO Enterprise approaches. In addition, in-house professional legal services provide support to other program areas on matters arising in connection with the performance of NPCC's delegated functions to achieve organizational excellence consistent with NPCC's values. NPCC's professional legal services provide counsel and advise to the President and CEO, Board of Directors, Board Committees, officers, and staff on a wide range of legal, compliance and regulatory matters including legislation, corporate law, code of conduct, member services, privacy, confidentiality, governance, employment law, tax matters, contracts and other areas affecting NPCC. Outside counsel, as necessary, reviews complex matters for legal sufficiency and provides independent legal advice and guidance on certain employment and Human Resource related matters.

The Legal and Regulatory program area is also responsible for activities associated with the Corporate Secretary function such as preparing Board materials and minutes, facilitating and conducting Board training, and ensuring that meetings of the Board of Directors and Committees adhere to the Bylaws and other relevant governing documents.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Professional Services

- Reduction in professional services as a result of increased utilization of in-house resources in lieu of outside counsel.

Information Technology

Program Scope and Functional Description

NPCC's Information Technology services ensure information assets and the environment in which they operate are resilient, secure and in conformance to NPCC IT Policies and Procedures and all applicable Critical Electric Infrastructure Information protection and Confidentiality requirements. NPCC maintains an offsite backup server for continuity of essential operations in the event that its primary servers are unavailable.

NPCC partners with the ERO to implement, operate and maintain software tools supporting common enterprise-wide operations and leverages ERO solutions which have been approved by the ERO Executive Committee (ERO EC), which is comprised of the senior leadership of NERC and each of the Regional Entities. NPCC's budget assumes the availability of enterprise software tools as described in NERC's business plan and budget. If implementation of these software applications is delayed or otherwise not available as planned, NPCC could incur additional costs to implement ERO Enterprise-wide programs pending the availability of these applications.

NERC and the Regional Entities are committed to working collaboratively to minimize duplication of effort and investments, and improve operational efficiency. This collaboration continues to refine existing strategies, governance and procurement practices applicable to the development, operation and maintenance of enterprise architecture, software and data systems supporting complementary and combined NERC and Regional Entity operations.

The NERC information technology budget does not supplant NPCC's need for IT expenditures for specific Regional projects and internal Region specific IT support needs. NPCC's 2022 Business Plan and Budget assumes agreed upon ERO Enterprise applications will be available and includes only NPCC costs for Region specific support needs.

2022 Key Assumptions

- Maintain the Compliance Portal, while transitioning to the ERO Enterprise CMEP data application (Align).
- Support the migration to the new Align tool as its releases are implemented.
- Participate in the design, planning and implementation of ERO Centralized Applications to improve security posture.
- Implement and enhance security tools and measures to strengthen NPCC's security monitoring and governance activities.
- Migrate NPCC network architecture to the cloud.
- Utilize secure third-party hosting centers for the NPCC website and NPCC network.
- Use IT consulting services and support for project-based work to augment staff skill sets instead of increasing headcount for the support of NPCC's website and cloud network environments.
- Replace computer equipment on a three-year refresh cycle, servers every four years, and replace network equipment every five years.
- Support the ERO Enterprise IT Strategy and continue working collaboratively to minimize duplication of effort and investments and improve operational efficiency.
- Increase knowledge of industry best practices for security, data management, and system administration.

- One new cybersecurity specialist is added to help bolster and formalize NPCC’s internal security program and posture due to the critical nature of some of NPCC’s data and increasing cyber security risks.

2022 Goals and Key Deliverables

Responsibilities encompass a variety of complex technical, administrative, and supervisory work in the development, installation, and maintenance of information technology systems. IT goals include, but are not limited to:

- Provide IT and security support to all NPCC’s operations, including: IT budget; infrastructure; service support; service design and; delivery service transition; and hardware and network security in a secure and efficient manner.
- Continue to assess NPCC’s security controls and implement and align to security control frameworks.
- Enhance NPCC’s Security Awareness Program that addresses, through education and training, social media, phishing, and other vulnerabilities that pose threats to NPCC systems.
- Assist business staff with enhancements requests and other IT-related project requirements and prioritize and oversee all IT or security-related projects.
- Coordinate and share best practices with other Regional Entities and NERC.
- Develop knowledge of systems through training and experience to reduce the reliance on external vendors.
- Use third-party security services to evaluate and test NPCC’s security posture, while fostering maturity in NPCC’s Internal Controls Program and security posture.
- Maintain the appropriate number of employees to oversee the IT Strategy, policies and procedures, service, and performance, budget and vendor management. Cross-train employees to serve as backups and mentors to each other.
- Continue collaborating with the ERO Enterprise on the configuration and implementation of the data loss prevention initiative.
- Continue to expand the utilization of the document management system throughout the company.
- Constantly review and evaluate security measures taken to reduce breach of security risks.
- Ensure all information systems are functional and secure, and that all applications running on those systems meet business requirements for performance, availability, and security.
- Provide outreach and education to NPCC members in IT best practices.
- Train and support NPCC staff on software and applications.
- Continually improve Disaster Recovery and Business Continuity policies and practices to ensure continuity and reliability of IT and business-related services.
- Upgrade various hardware and equipment.

Resource Requirements

Personnel

- Increase of 1.30 FTEs (including the re-allocation of an FTE formerly partially allocated to IT and the addition of one FTE partially allocated to SAIS) to support cybersecurity and infrastructure enhancements.

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Office Costs

- Increase in licensing and software expenses for the identification and reduction of cyber and physical security risks and infrastructure enhancements.

Fixed Assets

- Capital expenditures planned for 2022 include computer equipment for new hires and equipment upgrades.

Human Resources

Program Scope and Functional Description

NPCC has assembled an exceptional team of highly qualified employees to carry out its activities. The human resources function, in adherence with applicable federal and state laws, designs, plans, and implements human resources policies and procedures, including: staffing; compensation; benefits; employee relations; knowledge transfer, training and development; and employee time tracking.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Accounting and Finance

Program Scope and Functional Description

The accounting and finance function directs the overall financial plans and accounting practices of the organization; oversees treasury, accounting, budget, tax, and audit activities; and oversees financial and accounting system controls and standards. NPCC uses a CPA firm to prepare its unaudited statements of activities and financial statements for quarterly reviews. Independent audits have consistently identified this system as a best practice.

2022 Goals and Key Deliverables

The objectives are to provide or obtain the financial and accounting services for NPCC and coordinate with NERC requirements:

- Utilize the NERC System of Accounts for consistency
- Utilize an accrual method of accounting for consistency with NERC in methodology
- Alignment of changes in budget and changes in aggregate assessment
- Cash Management
- Budget Development using the NERC budget template formats
- Forecasts and Projections
- Alignment of NPCC Committees, Task Forces and Working Groups with the programs
- Payroll and expense administration
- Preparation of unaudited Quarterly Financial Variance Reports
- IRS Reporting
- Annual Independent Audit initiated by the Regional Entity

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Regional Entity Assessment Analysis

In the area of assessments there are distinct funding mechanisms as outlined in the following table. For the Regional Entity division, the North American Electric Reliability Corporation (NERC) will assess load serving entities (LSEs) or their designees (within NPCC the designees are the Balancing Authority Areas (BAAs) for New York, New England, New Brunswick, Nova Scotia, Ontario and Québec) based upon 2020 proportional Net Energy for Load (NEL) and other specific program area funding arrangements and make quarterly remittances to the Regional Entity on or about the 15th day of January, April, July and October. For funding associated with the Criteria Services division, the Independent System Operators/Balancing Authority Areas (ISO/BAAs) will be assessed by NPCC for their proportional share of the divisional budget based upon 2020 NEL within the Region. Non ISO/BAA Full Members will be assessed no membership fee.

NPCC Cost Allocation Methodology

The accompanying table provides information regarding cost allocation for both the Regional Entity division and the Criteria Services division of NPCC, including the details associated with the funding of the Compliance Program within the RE division. For purposes of determining assessments to support NPCC's resource requirements, costs are allocated among the ISOs/BAAs within NPCC as the designees for the load serving entities (LSEs) in New York, New England, Ontario, Québec, New Brunswick and Nova Scotia.

In order to reflect and respect the international membership and nature of NPCC, any sub-Regional reliability assessment costs in response to U.S. only regulatory initiatives will be considered for allocation to U.S. only ISOs/BAAs consistent with NERC Rules of Procedure section 1102. Additionally, the compliance responsibilities and authorities within the U.S., and the specific compliance responsibilities within each of the Canadian provinces within NPCC, and the attendant costs of portions of the compliance program differ among the areas within the Regional Entity. Within the U.S. portion of NPCC all costs attributable to delegated (statutory) functions performed by NPCC, including all compliance functions, are assessed based on a net energy for load (NEL) allocation. Within the Canadian portion of NPCC those costs attributable to compliance functions performed by NPCC on behalf of provincial governmental and/or regulatory authorities are allocated consistent with the unique Memoranda of Understanding or Agreements that have been entered into for those provinces. To address these different compliance regimes, NPCC developed a composite cost allocation methodology that allocates U.S. only reliability assessment and compliance costs on a fair and equitable basis within the Regional Entity.

As an initial step of that methodology, the NEL for each of the BAAs and their relative percentage to the NPCC total NEL is calculated for the most recent year for which data is available, the second previous year. In order to establish the RE division funding requirements for each Balancing Authority Area on a NEL basis for all programs except for Compliance, the proposed expenses and fixed assets of all other programs are calculated and the adjustment for the RE division cash reserve requirement is identified. Penalty monies received from NPCC registered entities within the U.S. are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs. Consistent with each of the Canadian provincial MOUs and agreements, all penalty monies resulting from compliance actions within Canada, if any, would remain within the applicable province. The total budgeted fees for NPCC workshop participation are indicated as a credit, with the resultant addition being the RE division assessment, without the compliance program costs, calculated on a NEL basis.

In accordance with the *NPCC Amended and Restated Bylaws* the CS division proposed expenses and fixed assets of all programs are calculated and the adjustment for the CS division cash reserve requirement is identified, with the resultant addition being the CS division funding requirement and assessment, calculated on a NEL basis.

For costs associated with the RE division compliance program, NPCC's allocation methodology has been enhanced to better stabilize assessments. NPCC applies a rolling seven-year compliance cost average to total compliance program expenses for the current budget year. For each of the seven years, costs attributed to CORC Fundamentals (CF), are allocated between the BAAs in the United States and Canada on a NEL basis.

Audits and Investigations (AI) related costs are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an audit-based methodology. The audit-based methodology incorporates relative costs based on categories of compliance audits which are reflective of their size and complexity, as well as the differing compliance program implementation models that are utilized in NPCC due to the international nature of the Regional Entity. The portion allocated to the U.S. BAAs in NPCC is calculated using the audit-based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL.

Mitigation and Enforcement (ME) related costs and are allocated between U.S. and Canadian BAAs in NPCC, and among the Canadian provinces, using an enforcement activity-based methodology. Based on historical data, NPCC reviewed each BAAs percentage of violations, mitigation plans and settlement agreements to determine each BAA's total average percentage of enforcement activities. The portion allocated to the U.S. BAA's in NPCC is calculated using the enforcement activity-based methodology, and this amount is then re-allocated between the New York and New England BAAs based on their relative NEL.

The seven-year average allocation percentage of total combined compliance costs for each BAA is then applied to the total compliance program expenses for the current budget year in order to mitigate fluctuations in assessments from year to year.

Penalty monies received from NPCC registered entities within the U.S. are then allocated among the NPCC program areas based on their FTE ratio and between the U.S. BAAs based on their relative NELs, and then added to the total compliance program expenses and fixed assets to yield a total compliance program assessment.

The CORC actual vs budget variance from the most recent year for which audited financials are available is broken out from the rest of the Adjustment to Cash Reserve and assigned to the CORC program allocation of costs. Within Québec these costs are funded directly by the regulator, therefore, the assignment of program area variances needs to respect those specific circumstances.

Finally, the total RE division funding requirements and assessments by BAA are tabulated and the total funding requirements and assessments for NPCC, both the RE and CS divisions, are combined.

NPCC 2022 Regional Entity (RE) and Criteria Services (CS) Divisional Funding Information

A-1	B-1	B-1a.	C-1	C-1a.	D-1	E-1	F-1	G-1	H-1	I-1	J-1	K-1	L-1	M-1	N-1	O-1
NPCC Balancing Authorities for Load (LSE Designees)	2020 Net Energy for Load (MWh)	2020 NPCC US NEL (MWh)	2020 NPCC NEL % of Total	2020 NPCC NEL % of U.S.	Associated with U.S. Only Reliability Study ¹	2022 ² NPCC Expenses & Fixed Assets Minus CORC and U.S. Only	2022 ² NPCC RE Division Cash Reserve Requirement Less CORC Assigned	2022 ² NPCC RE Division Funding Requirement Minus CORC Program	Penalty Monies Applied to RE Division Minus CORC Program	Budgeted Workshop Fees and Interest Income	2022 ² NPCC RE Division Assessment Minus CORC (G-1 plus H-1 plus I-1)	2022 NPCC CS Division Expenses Minus Interest	2022 CS Division Adjustment to Cash Reserve Requirement	2022 NPCC CS Division Funding Requirement (K-1 plus L-1)	2022 NPCC CS Division Budgeted Interest Income	2022 NPCC CS Division Member Fees (M-1 plus N-1)
New England	116,875,000	116,875,000	19.297%	43.761%	TBD	1,417,498	-95,489	1,322,009	-31,637	-12,006	1,278,366	182,865	-59,693	123,172	-296	122,875
New York	150,198,000	150,198,000	24.799%	56.239%	TBD	1,821,650	-122,715	1,698,935	-40,657	-15,429	1,642,849	235,002	-76,712	158,290	-381	157,909
Ontario	132,225,000	132,225,000	21.832%			1,603,668	-108,030	1,495,637	0	-13,583	1,482,055	206,881	-67,533	139,349	-335	139,013
Quebec	181,561,000	181,561,000	29.978%			2,202,031	-148,339	2,053,692	0	-18,651	2,035,041	284,073	-92,731	191,342	-460	190,882
New Brunswick	13,921,000	13,921,000	2.299%			168,838	-11,374	157,465	0	-1,430	156,035	21,781	-7,110	14,671	-35	14,636
Nova Scotia	10,871,000	10,871,000	1.795%			131,847	-8,882	122,965	0	-1,117	121,848	17,009	-5,552	11,457	-28	11,429
Total	605,651,000	267,073,000	100.000%	100.000%	\$0	\$7,345,533	-\$494,829	\$6,850,704	-\$72,294	-\$62,215	\$6,716,195	\$947,611	-\$309,331	\$638,280	-\$1,535	\$656,745

A-2	B-2	C-2	D-2	E-2	F-2	G-2	H-2	I-2	J-2
NPCC Balancing Authorities (LSE Designees)	7 Year Average CORC Costs Allocation ³	2022 Total CORC Program Expenses & Fixed Assets	Assigned CORC Program 2020 Actual vs Budget Variance	2022 Assigned CORC Program 2020 Actual vs Budget Variance	2022 Total CORC Program Assessment (C-2 plus D-2 plus E-2)	2022 RE Division Total Funding Requirement (G-1 plus C-2) plus E-2	2022 RE Division Total Assessment (H-1 plus F-2) (I-1 plus F-2)	2022 NPCC Total Funding Requirement (M-1 plus G-2) (O-1 plus H-2)	2022 NPCC Total Assessment & Member Fees
New England	32.09%	3,246,990	-256,763	-256,763	2,933,846	4,312,236	4,212,212	4,435,408	4,335,087
New York	41.28%	4,176,912	-335,040	-335,040	3,769,415	5,540,807	5,412,264	5,695,097	5,570,174
Ontario	8.25%	834,639	-65,708	-65,708	768,931	2,264,569	2,250,986	2,403,917	2,390,000
Quebec	14.20%	1,437,044	-106,816	-106,816	1,330,228	3,383,920	3,365,269	3,575,263	3,556,152
New Brunswick	2.61%	264,151	-18,617	-18,617	245,534	402,999	401,569	417,670	416,204
Nova Scotia	1.58%	159,865	-11,701	-11,701	148,164	271,129	270,012	282,586	281,442
Total	100.000%	\$10,119,600	-\$794,644	-\$794,644	\$9,196,118	\$16,175,660	\$15,912,313	\$16,813,940	\$16,549,058

1 Any sub-regional reliability assessment costs in response to U.S. only regulatory initiatives will be considered for allocation to U.S. only BAA's consistent with NERC Rules of Procedure section 1.102.

2 Consistent with NERC's Policy on Allocation of Certain Compliance and Enforcement Costs, the NPCC Board approved Allocation Methodologies for Certain NPCC Compliance Program Area Costs Assessed to Non-U.S. Entities.

3 Total CORC Program Costs are allocated based on a seven-year average allocation percentage. CORC Program Fundamentals expenses are allocated each year using the Regional NEL based methodology. Audit and Investigation expenses attributable to Canadian NPCC BA's are allocated annually utilizing an audit based methodology. The portion attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a, and C-1a. Audit based allocation uses Compliance Registry Data registrants as of May 1, 2021. Mitigation and Enforcement expenses are allocated annually utilizing an enforcement activity based methodology for Canadian NPCC BA's. The portion attributable to U.S. NPCC is allocated between the New York and New England balancing authority areas based on their respective net energy for load (NEL) as shown in Columns B-1a, and C-1a. The average allocation of total compliance costs over the prior seven years is then applied to the total compliance program costs for the current budget year in order to mitigate fluctuations in assessments.

Section B — Supplemental Financial Information

2022 Business Plan and Budget

Section B – Supplemental Financial Information

Table B-1 Reserve Balance

Working Capital and Operating Reserve Analysis 2021-2022					
REGIONAL ENTITY DIVISION					
	Total Reserve	Working Capital	Operating Reserve	Business Continuity	Assessment Stabilization
Beginning Total Reserve, December 31, 2020	6,815,904	4,013,955	1,369,999	662,881	769,069 ⁴
Plus: 2021 ERO Funding (from LSEs or designees)	15,154,584	15,154,584			
Plus: 2021 Other funding sources	15,275	15,275			
Plus: Penalties collected	0				
Approved 2021 Penalties released to offset U.S. assessments	0	201,132			0
Less: 2021 Projected expenses & capital expenditures	(16,245,328)	(15,993,808)		(251,520)	(201,132)
Remaining Business Continuity Reserves released into Working Capital	0	411,361		(411,361)	
Projected Total Reserve, December 31, 2021	5,740,435	3,802,499	1,369,999	0	567,937
Desired Total Reserve, December 31, 2022	4,249,830	2,427,656 ¹	1,455,370 ²	0 ³	366,805
Less: Projected Total Reserve, December 31, 2021	(5,740,435)	(3,802,499)	(1,369,999)	0	(567,937)
Increase(decrease) in assessments to achieve desired Total Reserve	(1,490,605)	(1,374,843)	85,370	0	(201,132)
2022 Expenses and Capital Expenditures	17,465,133				
Less: Penalty Sanctions (Applied to U.S. Only) ⁴	(201,132)				
Less: Other Funding Sources ⁵	(62,215)				
Less: Release of Business Continuity Reserve Funds ³	0				
Adjustment to Operating Reserve to achieve desired Total Reserve balance ²	85,370				
Adjustment to Working Capital to achieve desired Total Reserve balance ¹	(1,374,843)				
2022 Assessment	15,912,314				

¹ Working Capital within a range from 8.33% to 25.00% of Budget. \$2,427,656 represents 13.90% of the 2022 budget of \$17,465,133

² Operating Reserve equal to 8.33% of Budget. \$1,455,370 represents 8.33% of the 2022 budget of \$17,465,133

³ Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

⁴ Represents amount applied to reduce 2022 assessments. Balance of collections July 1, 2020 through June 30, 2021 retained for assessment stabilization purposes.

⁵ Assessment Stabilization Reserve balance was \$604,000 at June 30, 2020. Penalty Sanctions totaling \$165,069 were collected July 1, 2020 through December 31, 2020.

Table B - 1: Working Capital Reserve Analysis

Explanation of Changes in Reserve Policy from Prior Year

There was no change to the existing Working Capital and Operating Reserve Policy. NPCC maintains an Assessment Stabilization Reserve (ASR) separate from the Working Capital and Operating Reserve. The purpose of the ASR is to enable penalty monies to be released in multiple budget years in order to avoid large fluctuations in assessments. NERC Rules of Procedure (ROP) § 1107.2 specifies that penalty monies received by NPCC during the 12 months ended June 30th are to be used in the subsequent budget year to offset assessments. Pursuant to ROP § 1107.4, exceptions or alternatives to this provision are allowed if approved by NERC and FERC. Therefore, pursuant to ROP § 1107.4, NERC and NPCC request that the Commission approve an exception to the requirement of ROP § 1107.2 that all penalties collected during the 12 months ended the previous June 30 be used to reduce NPCC's assessments in the following year, in order to allow NPCC to (i) deposit the \$165,069 of penalties collected during the 12 months ended June 30, 2021 into the ASR, and (ii) use \$201,132 of the penalty funds in the ASR to reduce its 2022 assessment. In future years, NPCC will specify the amount of penalty funds to be released and the amount of penalty funds to be retained to offset assessments in future years within its Business Plan and Budget to be approved annually by NPCC's Board of Directors, NERC and FERC. A separate Business Continuity Reserve (BCR) in the amount of \$1,000,000 (allocated between the Regional Entity and Criteria Services divisions) was established in 2017 as approved by the NPCC Board of Directors, upon recommendation by the Management Development and Compensation Committee and endorsement by the Finance and Audit Committee, to be drawn upon as subsequently brought before the Board of Directors for approval of release of funds in association with President & CEO search and succession related activities. CEO succession was completed during the first quarter of 2021 after which remaining BCR funds were released into Working Capital and Operating Reserves.

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the Regional Entity division Statement of Activities on page 14 of the 2022 Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

Penalty Sanctions

NPCC maintains an Assessment Stabilization Reserve (ASR). The purpose of the ASR is to enable penalty monies to be released in multiple budget years in order to avoid large fluctuations in assessments. NERC Rules of Procedure (ROP) § 1107.2 specifies that penalty monies received by NPCC during the 12 months ended June 30th are to be used in the subsequent budget year to offset assessments. Pursuant to ROP §1107.4, exceptions or alternatives to this provision are allowed if approved by NERC and FERC. Therefore, pursuant to ROP §1107.4, NERC and NPCC request that the Commission approve an exception to the requirement of ROP §1107.2 that all penalties collected during the 12 months ended the previous June 30 be used to reduce NPCC's assessments in the following year, in order to allow NPCC to (i) deposit the \$165,069 of penalties collected during the 12 months ended June 30, 2021 into the ASR, and (ii) use \$201,132 of the penalty funds in the ASR to reduce its 2022 assessment. In future years, NPCC will specify the amount of penalty funds to be released and the amount of penalty funds to be retained to offset assessments in future years within Table B-1 Reserve Balance of its Business Plan and Budget, approved annually by NPCC's Board of Directors, NERC and FERC. Penalty sanctions collected during the 12 months ended June 30, 2021 are detailed below. Penalty monies released to offset assessments in 2022 and amounts retained to offset future assessments are detailed in the Assessment Stabilization column of Table B-1 Reserve Balance on the preceding page.

Allocation Method: U.S. penalty sanctions received are allocated to the following Regional Entity division programs to reduce assessments: Reliability Standards; Compliance Monitoring & Enforcement and Organization Registration & Certification; Reliability Assessments and Performance Analysis; Training, Education and Operator Certification; and Situation Awareness and Infrastructure Security. U.S. penalty sanctions are allocated based upon the number of FTEs in the Program divided by the aggregate total FTEs in the Programs receiving the allocation.

Table B-2 Penalty Sanctions

Penalty Sanctions Received Prior to June 30, 2021	Date Received	Amount Received
	8/17/2020	\$ 120,000
	8/18/2020	\$ 45,069
Total Penalties Received		\$ 165,069

Table B - 2: Penalty Sanctions Received

Table B-3 Supplemental Funding

Outside Funding Breakdown By Program (excluding ERO Assessments & Penalty Sanctions)	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget
Reliability Standards				
Total	\$ -	\$ -	\$ -	\$ -
Compliance Monitoring, Enforcement & Org. Registration	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Training and Education				
Workshops	\$ 67,500	\$ -	\$ 33,750	\$ (33,750)
Total	\$ 67,500	\$ -	\$ 33,750	\$ (33,750)
Situation Awareness and Infrastructure Security	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Technical Committees and Member Forums	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Administrative Services Programs				
Interest & Investment Income	\$ 56,264	\$ 15,275	\$ 28,465	\$ (27,799)
Total	\$ 56,264	\$ 15,275	\$ 28,465	\$ (27,799)
Total Outside Funding	\$ 123,764	\$ 15,275	\$ 62,215	\$ (61,549)

Table B - 3: Supplemental Funding

Explanation of Significant Variances

- NPCC began holding virtual Standards and Compliance Workshops during 2020 due to the COVID-19 pandemic. Based on high levels of participation and positive feedback on the virtual workshop format, NPCC plans to hold two virtual workshops and one in-person workshop in 2022.
- NPCC estimates interest & investment income of \$28,465 in 2022 from investment of reserves in a 100% U.S. Treasury Securities money market fund, which will offset 2022 assessments.

Table B-4 Personnel Expenses

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Salaries					
Salary	\$ 7,794,119	\$ 8,265,656	\$ 9,032,408	\$ 1,238,289	15.9%
Employment Agency Fees	\$ 170,000	\$ 22,000	\$ 22,000	\$ (148,000)	-87.1%
Temporary Office Services	\$ 18,000	\$ 10,000	\$ 18,000	\$ -	0.0%
Total Salaries	\$ 7,982,119	\$ 8,297,656	\$ 9,072,408	\$ 1,090,289	13.7%
Total Payroll Taxes	\$ 485,768	\$ 546,254	\$ 595,815	\$ 110,048	22.7%
Benefits					
Education Reimbursement	\$ 16,000	\$ 20,000	\$ 20,000	\$ 4,000	25.0%
Training and Seminars	\$ 80,614	\$ 56,280	\$ 99,800	\$ 19,186	23.8%
Medical Insurance	\$ 1,293,060	\$ 1,343,477	\$ 1,349,590	\$ 56,530	4.4%
Life-LTD-STD Insurance	\$ 109,106	\$ 90,340	\$ 102,012	\$ (7,093)	-6.5%
Worker's Compensation	\$ 27,400	\$ 27,400	\$ 43,000	\$ 15,600	56.9%
Vacation	\$ 495,063	\$ 654,978	\$ 620,335	\$ 125,272	25.3%
Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Benefits	\$ 2,021,243	\$ 2,192,475	\$ 2,234,738	\$ 213,494	10.6%
Retirement					
Pension Contribution	\$ -	\$ -	\$ -	\$ -	-
Employee Savings Plan	\$ 797,832	\$ 796,567	\$ 929,405	\$ 131,573	16.5%
Savings Admin	\$ 36,000	\$ 36,000	\$ 36,000	\$ -	0.0%
Deferred Compensation	\$ 76,000	\$ 76,000	\$ 76,000	\$ -	0.0%
Total Retirement	\$ 909,832	\$ 908,567	\$ 1,041,405	\$ 131,573	14.5%
Total Personnel Costs	\$ 11,398,962	\$ 11,944,952	\$ 12,944,366	\$ 1,545,404	13.6%
FTEs	42.11	46.11	49.90	7.79	8.2%
Cost per FTE					
Salaries	\$ 189,554	\$ 189,554	\$ 181,812	\$ (7,742)	-4.1%
Payroll Taxes	\$ 11,536	\$ 11,536	\$ 11,940	\$ 404	3.5%
Benefits	\$ 47,999	\$ 47,999	\$ 44,784	\$ (3,215)	-6.7%
Retirement	\$ 21,606	\$ 21,606	\$ 20,870	\$ (736)	-3.4%
Total Cost per FTE	\$ 270,695	\$ 270,695	\$ 259,406	\$ (11,289)	-4.2%

Table B - 4: Personnel Expenses

Explanation of Significant Variances

- Increase of 7.79 FTEs in 2022.
- Staff vacancy rate decreased from 6% in 2021 to 4% in 2022.
- Decrease in employment agency fees due to no executive search efforts planned for 2022.
- Medical insurance increase reflects a premium increase of 6%.
- Consolidation of benefits carriers resulted in lower Life-LTD-STD insurance premiums.

Table B-5 Meeting Expense

Meeting Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Meetings	\$ 325,400	\$ 64,200	\$ 221,100	\$ (104,300)	-32.1%
Travel	\$ 727,920	\$ 327,960	\$ 505,572	\$ (222,348)	-30.5%
Conference Calls	\$ 9,000	\$ 9,000	\$ 9,500	\$ 500	5.6%
Total Meeting Expenses	\$ 1,062,320	\$ 401,160	\$ 736,172	\$ (326,148)	-30.7%

Table B - 5: Meeting Expense

Explanation of Significant Variances

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

Table B-6 Consultants and Contracts

Consultants	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	-
Compliance Enforcement and Organization Registration and Certification	\$ -	\$ -	\$ -	\$ -	-
Reliability Assessment and Performance Analysis	\$ -	\$ -	\$ -	\$ -	-
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ -	\$ -	\$ -	\$ -	-
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ -	\$ -	\$ -	\$ -	-
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ -	\$ -	\$ -	\$ -	-
Consultants Total	\$ -	\$ -	\$ -	\$ -	-
Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ 20,000	\$ 20,000	\$ 20,000	\$ -	0.0%
Compliance Enforcement and Organization Registration and Certification	\$ 707,150	\$ 381,000	\$ 32,000	\$ (675,150)	-95.5%
Reliability Assessment and Performance Analysis	\$ 647,000	\$ 647,000	\$ 692,000	\$ 45,000	7.0%
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ 50,000	\$ 30,000	\$ 30,000	\$ (20,000)	-40.0%
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 80,000	\$ 80,000	\$ 60,000	\$ (20,000)	-25.0%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ 5,650	\$ 5,650	\$ 5,650	\$ -	0.0%
Contracts Total	\$ 1,509,800	\$ 1,163,650	\$ 839,650	\$ (670,150)	-44.4%
Total Consultants and Contracts	\$ 1,509,800	\$ 1,163,650	\$ 839,650	\$ (670,150)	-44.4%

Table B - 6: Consultants and Contracts

Explanation of Significant Variances

- Decrease in CORC consultants and contracts is a result of adding five FTEs to increase in-house expertise.
- Ongoing effort to decrease the use of consultants and contractors when possible, as reflected in particular in the Situation Analysis and Infrastructure Security and General and Administrative budgets.

Table B-7 Office Rent

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Office Rent	\$ 650,000	\$ 650,000	\$ 650,000	\$ -	0.0%
Utilities	\$ 47,000	\$ 47,000	\$ 33,000	\$ (14,000)	-29.8%
Maintenance	\$ 45,000	\$ 45,000	\$ 45,000	\$ -	0.0%
Security	\$ 3,141	\$ 3,141	\$ 3,141	\$ -	0.0%
Real Estate Taxes	\$ 125,000	\$ 125,000	\$ 175,000	\$ 50,000	40.0%
Total Office Rent	\$ 870,141	\$ 870,141	\$ 906,141	\$ 36,000	4.1%

Table B - 7: Office Rent

Explanation of Significant Variances

- Decrease in utilities based on recent actual expenses.
- Increase in real estate taxes based on historical actual expenses.

Table B-8 Office Costs

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Telephone	\$ 88,720	\$ 88,720	\$ 100,200	\$ 11,480	12.9%
Internet Expense	\$ 70,500	\$ 70,500	\$ 85,351	\$ 14,851	21.1%
Office Supplies	\$ 28,000	\$ 28,000	\$ 15,000	\$ (13,000)	-46.4%
Computer Supplies and Maintenance	\$ 576,000	\$ 820,000	\$ 945,000	\$ 369,000	64.1%
Subscriptions & Publications	\$ 20,000	\$ 20,000	\$ 25,650	\$ 5,650	28.3%
Dues	\$ 9,000	\$ 9,000	\$ 11,070	\$ 2,070	23.0%
Postage	\$ 1,200	\$ 1,200	\$ 800	\$ (400)	-33.3%
Express Shipping	\$ 6,000	\$ 6,000	\$ 4,000	\$ (2,000)	-33.3%
Copying	\$ 24,000	\$ 24,000	\$ 25,000	\$ 1,000	4.2%
Reports	\$ 2,000	\$ 2,000	\$ 2,000	\$ -	0.0%
Stationary and Office Forms	\$ 2,000	\$ 2,000	\$ 2,000	\$ -	0.0%
Equipment Repair/Service Contracts	\$ -	\$ -	\$ -	\$ -	-
Bank Charges	\$ 10,000	\$ 10,000	\$ 2,000	\$ (8,000)	-80.0%
Sales and Use Tax	\$ -	\$ -	\$ -	\$ -	-
Merchant Credit Card Fees	\$ -	\$ -	\$ -	\$ -	-
Presentation and Publicity	\$ -	\$ -	\$ -	\$ -	-
Total Office Costs	\$ 837,420	\$ 1,081,420	\$ 1,218,071	\$ 380,651	45.5%

Table B - 8: Office Costs

Explanation of Significant Variances

- Increase in computer supplies and maintenance is related to various security and network infrastructure improvements. (See Information Technology program area section for additional details.)

Table B-9 Professional Services

Professional Services	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
BOT Fee	\$ 300,000	\$ 300,000	\$ 300,000	\$ -	0.0%
BOT Search Fee	\$ -	\$ -	\$ -	\$ -	-
Legal - Reorganization	\$ -	\$ -	\$ -	\$ -	-
Accounting & Auditing Fees	\$ 370,000	\$ 370,000	\$ 402,000	\$ 32,000	8.6%
Legal Fees - Other	\$ 260,000	\$ 260,000	\$ 250,000	\$ (10,000)	-3.8%
Insurance - Commercial	\$ 75,000	\$ 75,000	\$ 65,000	\$ (10,000)	-13.3%
Total Services	\$ 1,005,000	\$ 1,005,000	\$ 1,017,000	\$ 12,000	1.2%

Table B - 9: Professional Services**Table B-10 Miscellaneous**

Miscellaneous Expense	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Miscellaneous Expense	\$ 51,000	\$ 51,000	\$ 51,000	\$ -	0.0%
Total Miscellaneous Expense	\$ 51,000	\$ 51,000	\$ 51,000	\$ -	0.0%

Table B - 10 :Miscellaneous**Table B-11 Other Non-Operating Expenses**

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Office Relocation	\$ -	\$ -	\$ -	\$ -	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

Table B - 11: Other Non-Operating Expenses**Table B-12 Fixed Assets**

Fixed Asset Additions	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Equipment CapEx	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	\$ 65,800	\$ 87,800	\$ 73,150	\$ 7,350	11.2%
Furniture & Fixtures CapEx	\$ 14,100	\$ 14,100	\$ 19,000	\$ 4,900	34.8%
Leasehold Improvements	\$ 14,100	\$ 14,100	\$ 19,000	\$ 4,900	34.8%
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	-
Total Fixed Asset Additions	\$ 94,000	\$ 116,000	\$ 111,150	\$ 17,150	18.2%

Table B - 12: Fixed Assets**Explanation of Significant Variances**

- Computer and software capital expenditures include computer equipment for new hires and equipment upgrades.
- Other planned capital expenditures include reconfigurations of office space.

Table B-13

Statement of Activities and Capital Expenditures 2022 Budget & Projected 2023 and 2024 Budgets							
	2022 Budget	2023 Projection	\$ Change 22 v 23	% Change 22 v 23	2024 Projection	\$ Change 23 v 24	% Change 23 v 24
Funding							
ERO Funding							
ERO Assessments	\$ 15,912,313	\$ 16,947,897	\$ 1,035,584	6.5%	\$ 18,036,875	\$ 1,088,978	6.0%
Penalties Released	201,132	201,132	-	0.0%	201,132	-	0.0%
Total ERO Funding	\$ 16,113,445	\$ 17,149,029	\$ 1,035,584	6.4%	\$ 18,238,007	\$ 1,088,978	6.0%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops & Miscellaneous	33,750	33,750	-	0.0%	33,750	-	0.0%
Interest & Investment Income	28,465	28,500	35	0.1%	28,500	-	0.0%
Total Funding (A)	\$ 16,175,660	\$ 17,211,279	\$ 1,035,619	6.4%	\$ 18,300,257	\$ 1,088,978	6.3%
Expenses							
Personnel Expenses							
Salaries	\$ 9,072,408	\$ 9,863,347	\$ 790,939	8.7%	\$ 10,691,856	\$ 828,509	8.4%
Payroll Taxes	595,815	648,200	52,385	8.8%	702,026	53,826	8.3%
Benefits	2,234,738	2,421,780	187,042	8.4%	2,614,433	192,653	8.0%
Retirement Costs	1,041,405	1,118,044	76,639	7.4%	1,196,790	78,746	7.0%
Total Personnel Expenses	\$ 12,944,366	\$ 14,051,371	\$ 1,107,005	8.6%	\$ 15,205,105	\$ 1,153,734	8.2%
Meeting Expenses							
Meetings	\$ 221,100	\$ 275,522	\$ 54,422	24.6%	\$ 230,032	\$ (45,490)	-16.5%
Travel	505,572	515,683	10,111	2.0%	525,997	10,314	2.0%
Conference Calls	9,500	9,500	-	0.0%	9,500	-	0.0%
Total Meeting Expenses	\$ 736,172	\$ 800,705	\$ 64,533	8.8%	\$ 765,530	\$ (35,176)	-4.4%
Operating Expenses							
Consultants & Contracts	\$ 839,650	\$ 839,650	-	0.0%	\$ 839,650	\$ -	0.0%
Office Rent	906,141	915,202	9,061	1.0%	924,354	9,152	1.0%
Office Costs	1,218,071	1,242,432	24,361	2.0%	1,267,281	24,849	2.0%
Professional Services	1,017,000	967,000	(50,000)	-4.9%	967,000	-	0.0%
Miscellaneous	51,000	51,000	-	0.0%	51,000	-	0.0%
Total Operating Expenses	\$ 4,031,862	\$ 4,015,285	\$ (16,577)	-0.4%	\$ 4,049,285	\$ 34,001	0.8%
Total Direct Expenses	\$ 17,712,400	\$ 18,867,361	\$ 1,154,961	6.5%	\$ 20,019,920	\$ 1,152,559	6.1%
Indirect Expenses	\$ (358,417)	\$ (365,585)	\$ (7,168)	2.0%	\$ (372,897)	\$ (7,312)	2.0%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
Total Expenses (B)	\$ 17,353,983	\$ 18,501,776	\$ 1,147,793	6.6%	\$ 19,647,023	\$ 1,145,247	6.2%
Change in Assets	\$ (1,178,323)	\$ (1,290,497)	\$ (112,174)	9.5%	\$ (1,346,766)	\$ (56,269)	4.4%
Fixed Assets Additions (C)	\$ 111,150	\$ 100,000	\$ (11,150)	-10.0%	\$ 150,000	\$ 50,000	50.0%
TOTAL BUDGET (=B+C)	\$ 17,465,133	\$ 18,601,776	\$ 1,136,643	6.5%	\$ 19,797,023	\$ 1,195,247	6.4%
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (1,289,473)	\$ (1,390,497)	\$ (101,024)	7.8%	\$ (1,496,766)	\$ (106,269)	0.0%
FTEs	49.90	52.90	3	6.0%	55.90	3	5.7%

Table B - 13: Three-Year Projections

Assumptions

2023

- Increase of 3 FTEs in Compliance program area
- NPCC co-hosts GridSecCon in 2023

2024

- Increase of 3 FTEs in Compliance program area
- Fixed asset additions include equipment refresh of laptops

Section C — Criteria Services Division Activities 2022 Business Plan and Budget

Section C – Criteria Services Division Activities

Criteria Services Division			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.14	2.10	-0.04
Total Direct Expenses	\$605,718	\$583,344	(\$22,374)
Total Indirect Expenses	\$387,995	\$358,417	(\$29,578)
Other Non-Operating Expenses	\$0	\$0	\$0
Working Capital and Operating Reserves Requirement	(\$324,222)	(\$309,331)	\$14,891
Fixed Asset Additions	\$6,000	\$5,850	(\$150)
Funding Requirement	\$675,491	\$638,280	(\$37,211)

Table C - 1: Criteria Services Division Business Plan and Budget

NPCC Regionally-Specific Criteria Services Background

NPCC Criteria Services division activities are based on the development, maintenance (including retirement when no longer needed), and promulgation of new or revised Regionally-specific, more stringent reliability criteria and supporting guideline or procedural documents. The requirements in NPCC Reliability Criteria apply only to those facilities defined as NPCC Bulk Power System elements through the performance-based methodology identified in the NPCC Document A-10, “Classification of Bulk Power System Elements.”

In accordance with the NERC Rules of Procedure (RoP) Section 313, Regional Entities may develop Regional Criteria necessary to implement, augment, or facilitate compliance with NERC Reliability Standards. NPCC’s Directories contain Regional Criteria which consists of requirements which provide an increased level of reliability to the NPCC defined bulk power system. The criteria impose more stringent requirements than those which appear in the NERC reliability standards. The Regional Criteria may also be utilized to address issues not within the scope or jurisdiction of FERC as outlined in Section 215 of the Federal Power Act, such as resource adequacy. Regional Criteria may also address Canadian Provincial reliability issues, and may include specific operating or planning parameters, guides, agreements, protocols or other documents used to enhance the reliability of the Bulk Power System in the Region. These documents typically provide benefits by promoting more consistent implementation of the NERC Reliability Standards within the Region. These documents are not NERC Reliability Standards, Regional Reliability Standards, or Regional Variances, and therefore are not enforceable under the authority delegated by NERC pursuant to delegation agreements.

On a periodic basis and also as NERC Reliability Standards are revised or new standards are developed, NPCC performs reviews of any associated Regional Criteria for possible impact (e.g. continued need or revision). During the criteria review process NPCC’s Task Forces review not only the incremental reliability benefit, but also the cost effectiveness of the criteria. In addition, as NERC standards are improved, revised, and ultimately approved by the FERC some requirements of the NPCC Regional Criteria may become unnecessary in the US portion of NPCC. In these situations, it is important that the criteria remain in place until such time as all NPCC’s Canadian Provincial regulators adopt the NERC standard to ensure no reliability gaps exist.

For 2022 and beyond, the potential reliability impacts of increased penetration of Distributed Energy Resources (DER, e.g. solar and wind), and large amounts of Variable Energy Resources (VER) e.g. offshore wind along with the associated changing fuel mixes within NPCC, warrant further consideration. The Criteria Services Division staff, in conjunction with the NPCC Task Forces and Working Groups have a unique opportunity to conduct reviews of these issues and develop criteria, guideline, and procedural documents for DER which may be outside of the jurisdiction of FERC and NERC Reliability Standards. Participation of the entities responsible for development of DER and VER renewable resources to develop reliability documents will become increasingly important over time. Outreach, collaboration, and coordination of topics related to DER and VER will enable NPCC to develop guidance allowing more effective integration of these resources.

Increasing resilience of the BPS through alternative approaches to standards development using potential NPCC criteria, guidelines, and whitepapers will also be continually reviewed by NPCC's body of subject matter experts.

NPCC Criteria Services also will be continually prioritizing the revision of its reliability criteria based on potential emerging risks associated with increased deployment of decarbonized resources.

Membership and Governance

Full members, in accordance with NPCC's Amended and Restated Bylaws, are subject to compliance with Regionally-specific criteria and receive criteria-related services from the Criteria Services division.

Full Members, aside from those who perform the Balancing Authority function, are not assessed an annual membership fee. Those that perform Balancing Authority functions are assessed and remit a proportional net energy for load share of expenses for Criteria Services. NPCC would also directly assign Criteria Service division costs to a Balancing Authority Area or entity, where significant costs are incurred for that Balancing Authority Area. The funding for NPCC's Criteria Services division is approved by the NPCC Board of Directors.

Under Criteria Services NPCC will identify for membership, those entities involved in emerging technologies to assure that those entities which have an impact on Bulk Electric System reliability are included in appropriate NPCC activities.

Criteria Services Division Functional Scope

Through its Criteria Services division, NPCC promotes the reliable and efficient operation of the international, interconnected bulk power systems in Northeastern North America through the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria.

NPCC provides Full Members with Regional reliability assurance services and acts as the vehicle through which States and Provinces can fulfill their political mandates, with respect to resource adequacy, as well as overseeing the Northeastern North American electric infrastructure.

2022 Key Assumptions

The Criteria Services division activities are expected to remain stable or slightly increase throughout 2022 depending on reliability need.

- The Criteria Compliance and Enforcement Program (CCEP) review and evaluation process is the mechanism for monitoring key criteria attributes as determined by the respective NPCC Task Forces and the Compliance Committee.
- Noncompliance under the CCEP follows the due process stated in the CCEP-1 process document for assessment by the CC followed by a recommendation to the RC to ensure that proper resolution/mitigation/enforcement actions are taken.

2022 Primary Goals and Objectives

- Continue with the development and maintenance of a set of NPCC Directories which augment or add specificity to the NERC Reliability Standards, and which clearly delineate the more stringent NPCC criteria requirements. The combination of North American and more stringent NPCC Regional criteria provide for consistency and operational clarity while providing more robust defense in–depth, results based, criteria requirements to ensure NPCC BPS reliability.
- Continually review the criteria found in the NPCC Directories and the ERO standards to ensure no redundancies or inconsistencies exist.
- Retire Directories and/or Criteria which have been overtaken by improved NERC standards.
- Identify opportunities to develop criteria, procedures or guideline documents to address emerging risks associated with DER VER and energy storage.
- Identify opportunities to address improvements in BES resilience with NPCC processes and documentation.
- Continually review the need to file revised and updated more stringent requirements with the New York State Department of Public Service and Canadian Provinces as applicable.
- Review, maintain, and revise the NPCC Regional Reliability Directories to facilitate compliance assessments and ensure the Criteria portions of the Directories augment and are not duplicative of, the approved and effective NERC Standards.
- The Criteria Services division and CCEP Working Group (reporting to the Compliance Committee) will work with the various Task Forces to develop Criteria Compliance Reporting Forms for any additional NPCC Directories to ensure that the more stringent or Regionally-specific Criteria is being met.
- The Criteria Services division and CCEP Working Group will work with TFCO, TFCP, TFSS, and TFSP to review criteria and measures within each specific NPCC Directory to identify and develop them into specific reporting forms for approval.
- Continually review impact of Bulk Electric System definition on Directory and Criteria content and compliance reporting.
- Continually review potential impacts of Sector or NPCC organizational changes on the Directories and Criteria by performing a review of enforcement and arbitration processes as needed.
- Assist Legal with preparation of revised Directories for Regulatory filings with the individual Provinces in accordance with their respective Memorandum of Understandings (MOUs) as well as the State of New York Public Service Commission.
- Facilitate any requested clarifications for NPCC Criteria with the necessary subject matter experts and also identify any other potential opportunities for clarifications of the Criteria.

NPCC Reliability Directory Maintenance and Development

The NPCC Regional Reliability Directories were developed to demonstrate that the NPCC more stringent criteria augment, add specificity, or address issues not covered in the NERC Reliability Standards as mandated by the NERC Rules of Procedure. The conversion of NPCC’s reliability criteria into Directories was undertaken to remove any redundancies with the NERC or NPCC Regional Reliability Standards and to clearly delineate the more stringent NPCC criteria

requirements, assign Functional Model designations to those responsible for compliance and create measurable compliance criteria. Subsequent to the initial establishment of the Directories, which also organized functionally related B Guidelines and C Procedures into a single Directory, the Directories were further reviewed to translate existing criteria language into requirements and a “standards type” format. The development of the criteria into NERC style requirements facilitates the NPCC Region’s CCEP and also ensures the delineation of the more stringent and more specific Regional criteria from the latest approved and effective set of NERC ERO standards.

In 2022, work will continue with the maintenance, revision, or potential retirement of individual Directories to address any actual or anticipated redundancies with new or modified NERC or NPCC Reliability Standards. The ongoing review and maintenance of the Directories will require Task Force and Criteria Services staff to support this effort and to serve as subject matter experts. In addition to the ongoing review of the criteria within the Directories for potential duplicity with the NERC standards, any Directories that have not had the criteria translated into NERC style requirements will also be reviewed in order to achieve criteria “requirements” which are clear, concise and measurable. Also, a standards style template will continue to be applied to the existing Directories to make them more consistent with the format of NERC standards. As NERC standards improve, the need for NPCC Directories and the amount of criteria contained therein may decrease over time, however in the interim, significant review is necessary to ensure the criteria remain consistent with the NERC standards as outlined in the NERC Rules of Procedure. NPCC will conduct internal reviews of all draft standards against Regional criteria and utilize subject matter experts to identify reliability and compliance related concerns. NPCC will file the revised NPCC Directories and notifications of retirements of Directories with the Canadian governmental and/or provincial Regulatory authorities within the NPCC “footprint”, on an as needed basis, in accordance with established provincial procedures and agreements executed with NPCC.

Additionally, as NERC Reliability Standards are developed, associated Directories will be reviewed for continued need. This review will identify the incremental reliability enhancement the Directory’s criteria will yield, determine if the enhancement is sufficient to warrant retention and if so, are there any potential cost-effective alternatives that may exist to achieve that enhanced level of reliability.

NPCC Operations and Planning Directories

The following Directories are envisioned to remain active for 2022.

Directory #1, Design and Operation of the Bulk Power System.

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC TPL, BAL, IRO, INT, MOD, TOP, PRC and VAR standards. The NPCC TFCP and TFCO completed a review of the Directory#1 criteria in 2019, during which the criteria was translated into NERC style requirements and revisions were enacted to ensure consistency with recent changes to the TPL and TOP standards. A review to revise this Directory was again initiated in 2021 to also incorporate potential revisions due to DER and VER and other emerging risks.

Directory #2, Emergency Operations

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing NERC EOP and TOP standards. The NPCC Task Force on Coordination of Operation reviewed this Directory in 2019.

Directory #4, *System Protection Criteria*

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain applicable NERC PRC standards. The NPCC Task Force on System Protection will lead this next review and revision. A review was initiated in 2021 and will continue into 2022 to address any emerging risks due to DER, VER and decarbonization of resources.

Directory #5, *Reserve*

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with all the existing applicable NERC BAL, INT, and IRO standards. The NPCC Task Force on Coordination of Operation will lead this review and revision and ensure consistency with the BAL standards under revision in 2020.

Directory #7, *Special Protection Systems*

This Directory documents NPCC’s Regionally-specific, more stringent criteria for application and approval of RAS. The NPCC Task Force on System Protection reviewed and revised the document in 2020 to ensure consistency with the Remedial Action Scheme PRC-012 standard.

Directory #8, *System Restoration*

This Directory documents NPCC’s Regionally-specific, more stringent criteria with which each applicable entity must plan for and perform power system restoration following a major or a total blackout, and demonstrates coordination and consistency with applicable NERC EOP standards. The NPCC Task Force on Coordination of Operation initiated the review and revision of this Directory in 2021. As DER continues to displace conventional resources used for system restoration, this Directory will continue to consider how to effectively use DER to contribute to restoration.

Directory #11, *Disturbance Monitoring Equipment*,

This Directory documents NPCC’s Regionally-specific, more stringent criteria, and demonstrates coordination and consistency with certain existing NERC PRC standards. The NPCC Task Force on System Protection developed Directory #11 in order to facilitate the retirement of the NPCC Regional Standard PRC -002-NPCC-1.

NPCC Criteria Compliance and Enforcement Program (CCEP)

The NPCC Criteria Services division supports the reliable operation of the NPCC Bulk Power System (BPS) through implementation of the NPCC Criteria and Compliance Program (CCEP). This program monitors, assesses, and enforces compliance on a subset of the regionally specific, more stringent NPCC Criteria that are unique to the NPCC BPS and are not duplicative of the NERC Reliability Standards. The physical characteristics and topology of the transmission system within the Region require that certain aspects of criteria be monitored for compliance.

The Criteria Services division and the NPCC Compliance Committee (CC) administer the CCEP. The CC is a stakeholder body consisting of NPCC Members and is structured by the seven stakeholder sectors that appear in the NPCC Bylaws.

Noncompliance to NPCC Criteria is not subject to monetary sanctions and results in a notification of noncompliance to the Chief Executive Officer of the appropriate Full Member.

The CCEP program is described in document CCEP-1, *NPCC Criteria Compliance and Enforcement Program (CCEP) Process Document*. The CC reviews CCEP-1 annually and revisions to CCEP-1 are reviewed and approved by the CC.

The CCEP-1 document:

1. Provides a comprehensive CCEP Process Flow Diagram showing the process of evaluating and approving Criteria Certification submittals, and additional processes and responsibilities in the event that non-compliances, disputes, and sanctions arise;
2. Describes the roles and responsibilities of Reporting Members, the CC, the NPCC Reliability Coordinating Committee, and the Enforcement Panel in the compliance review and enforcement process
3. Describes non-monetary Sanctions, the Lateness Policy, and the Arbitration/Dispute Resolution process
4. Addresses the development of Mitigation Plans for any violations under the enforcement process

The CCEP Working Group (under the CC) develops a draft of the annual CCEP Implementation Plan and updates the blank certification templates for the upcoming Plan year. The Implementation Plan identifies the subset of Criteria that must be certified to and includes the certification form due dates. The draft CCEP Implementation Plan for the coming year and the draft certification templates are then submitted to the CC for review and approval.

The CC members review the completed certification forms that are returned by Full Members. NPCC staff develops an assessment report and scorecard that summarizes the certifications that were received for the CC to review and approve. The CC assessment report and any recommendations on noncompliances are then presented to the NPCC Reliability Coordinating Committee (RCC) for acceptance.

Compliance to the NPCC Criteria is a responsibility of the NPCC Members and is codified in the *Amended and Restated Bylaws of Northeast Power Coordinating Council, Inc.* Implementation of the CCEP is also consistent with the current Memorandum of Understanding that NPCC has with its Canadian Members.

Resource Requirements

Meetings

- Reduction in meetings and travel expenses based on changes in meeting formats related to COVID-19 pandemic. It is expected that some meetings will continue to be held in virtual formats such as teleconference or webinar to allow for remote participation and greater access throughout 2022.

2020 Budget and Projection and 2022 Budget Comparisons

Statement of Activities and Capital Expenditures 2021 Budget & Projection, and 2022 Budget						
CRITERIA SERVICES DIVISION						
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Over(Under)	
Funding						
ERO Funding						
ERO Assessments	\$ -	\$ -	\$ -	\$ -	\$ -	
Penalty Sanctions	-	-	-	-	-	
Total ERO Funding	\$ -	\$ -	\$ -	\$ -	\$ -	
Membership Dues	671,755	671,755	-	636,745	(35,010)	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	3,736	975	(2,761)	1,535	(2,201)	
Total Funding (A)	\$ 675,491	\$ 672,730	\$ (2,761)	\$ 638,280	\$ (37,211)	
Expenses						
Personnel Expenses						
Salaries	\$ 336,972	\$ 357,510	\$ 20,539	\$ 349,040	\$ 12,069	
Payroll Taxes	23,317	25,985	2,668	25,056	1,739	
Benefits	86,435	66,623	(19,812)	66,252	(20,183)	
Retirement Costs	36,654	38,949	2,295	37,526	872	
Total Personnel Expenses	\$ 483,378	\$ 489,067	\$ 5,689	\$ 477,875	\$ (5,503)	
Meeting Expenses						
Meetings	\$ 11,200	\$ 5,600	\$ (5,600)	\$ 8,400	\$ (2,800)	
Travel	45,440	22,720	(22,720)	34,080	(11,360)	
Total Meeting Expenses	\$ 56,640	\$ 28,320	\$ (28,320)	\$ 42,480	\$ (14,160)	
Operating Expenses, excluding Depreciation						
Consultants & Contracts	\$ 57,700	\$ 57,700	\$ -	\$ 56,000	\$ (1,700)	
Office Rent	-	-	-	-	-	
Office Costs	4,000	4,000	-	2,989	(1,011)	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	4,000	4,000	-	4,000	-	
Total Operating Expenses, excluding Depreciation	\$ 65,700	\$ 65,700	\$ -	\$ 62,989	\$ (2,711)	
Total Direct Expenses	\$ 605,718	\$ 583,087	\$ (22,631)	\$ 583,344	\$ (22,374)	
Indirect Expenses	\$ 387,995	\$ 387,995	\$ -	\$ 358,417	\$ (29,578)	
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Expenses (B)	\$ 993,713	\$ 971,082	\$ (22,631)	\$ 941,761	\$ (51,952)	
Change in Net Assets (=A-B)	\$ (318,222)	\$ (298,352)	\$ 19,870	\$ (303,481)	\$ 14,741	
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 6,000	\$ 6,000	\$ -	\$ 5,850	\$ (150)	
TOTAL BUDGET (=B+C)	\$ 999,713	\$ 977,082	\$ (22,631)	\$ 947,611	\$ (52,102)	
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (324,222)	\$ (304,352)	\$ 19,870	\$ (309,331)	\$ 14,891	

Table C - 2: Budget and Current Year Projection Comparison

Personnel Analysis

Total FTE's by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs ¹ 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
CRITERIA SERVICES DIVISION						
Operational Programs						
Reliability Standards	1.07	1.07	1.00	0.05	1.05	-0.02
Compliance Enforcement and Organization Registration and Certification	0.00	0.00	0.00	0.00	0.00	0.00
Training and Education	0.00	0.00	0.00	0.00	0.00	0.00
Reliability Assessment and Performance Analysis	1.07	1.07	1.00	0.05	1.05	-0.02
Situation Awareness and Infrastructure Security	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Operational Programs	2.14	2.14	2.00	0.10	2.10	-0.04
Administrative Programs						
Member Forums	0.00	0.00	0.00	0.00	0.00	0.00
General and Administrative	0.00	0.00	0.00	0.00	0.00	0.00
Information Technology	0.00	0.00	0.00	0.00	0.00	0.00
Legal and Regulatory	0.00	0.00	0.00	0.00	0.00	0.00
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00
Accounting and Finance	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Administrative Programs	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs	2.14	2.14	2.00	0.10	2.10	-0.04

¹A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

Table C - 3: Criteria Services Personnel Analysis

Reserve Analysis

Working Capital and Operating Reserve Analysis 2021-2022				
CRITERIA SERVICES DIVISION				
	Total Reserve	Working Capital	Operating Reserve	Business Continuity
Beginning Total Reserve, December 31, 2020	884,967	757,070	88,755	39,142
2021 Non-Statutory Funding (from members)	671,755	671,755		
Plus: 2021 Other funding sources	975	975		
Less: 2021 Projected expenses & fixed asset additions	(977,082)	(966,602)		(10,480)
Remaining Business Continuity Reserves released into Working Capital	0	28,662		(28,662)
Projected Total Reserve, December 31, 2021	580,615	491,860	88,755	0
Desired Total Reserve, December 31, 2022	271,284	192,319 ¹	78,964 ²	0 ³
Less: Projected Total Reserve, December 31, 2021	(580,615)	(491,860)	(88,755)	0
Increase(decrease) in assessments to achieve desired Total Reserve	(309,331)	(299,541)	(9,791)	0
2022 Funding requirement for expenses and fixed asset additions	947,611			
Less: Other Funding Sources	(1,535)			
Less: Release of Business Continuity Reserve Funds ³	0			
Adjustment to Operating Reserve to achieve desired Total Reserve balance ²	(9,791)			
Adjustment to Working Capital to achieve desired Total Reserve balance ¹	(299,541)			
2021 Funding and reserve requirement	636,745			

¹ Working Capital must be within a range from 8.33% to 25.00% of Budget. \$192,319 represents 20.30% of the 2022 budget of \$947,611.

² Operating Reserve must equal 8.33% of Budget. \$78,964 represents 8.33% of the 2022 budget of \$947,611.

³ Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

Table C - 4: Reserve Analysis

Explanation of Changes in Reserve Policy from Prior Year

There was no change to the existing Working Capital and Operating Reserve Policy.

A separate Business Continuity Reserve (BCR) in the amount of \$1,000,000 (allocated between the Regional Entity and Criteria Services divisions) was established in 2017 as approved by the NPCC Board of Directors, upon recommendation by the Management Development and Compensation Committee and endorsement by the Finance and Audit Committee, to be drawn upon as subsequently brought before the Board of Directors for approval of release of funds in association with President & CEO search and succession related activities. CEO succession was completed during the first quarter of 2021 after which remaining BCR funds were released into Working Capital and Operating Reserves.

Section D — Additional Consolidated Financial Statements

2022 Business Plan and Budget

Section D — Additional Financial Statements

Statement of Financial Position

Statement of Financial Position				
2020 Audited, 2021 Projection, and 2022 Budget				
Regional Entity and Criteria Services Division				
	Audited	Projected	Budget	
	31-Dec-20	31-Dec-21	31-Dec-22	
ASSETS				
Cash	\$ 3,371,323	\$ 2,100,000	\$ 2,100,000	
Restricted cash	919,159	718,000	517,000	
Temporary cash investments	6,241,778	5,802,000	4,105,000	
Prepaid expenses	479,177	479,000	479,000	
Other assets	308,257	26,000	44,000	
Equipment and leasehold improvements, net	553,791	443,000	364,000	
Total Assets	\$ 11,873,485	\$ 9,568,000	\$ 7,609,000	
LIABILITIES AND NET ASSETS				
Liabilities				
Accrued expenses and other liabilities	\$ 2,965,155	\$ 2,674,000	\$ 2,695,000	
Deferred revenue	314,881	-	-	
Deferred rent	338,787	237,000	136,000	
Total Liabilities	3,618,823	2,911,000	2,831,000	
Net Assets - Without Donor Restrictions				
Available for operations	7,552,639	6,171,000	4,778,000	
Board designated for future use	702,023	486,000	-	
Total Net Assets Without Donor Restrictions	8,254,662	6,657,000	4,778,000	
Total Liabilities and Net Assets	\$ 11,873,485	\$ 9,568,000	\$ 7,609,000	

Table D - 1: Statement of Financial Position, Three-Year Comparison

Section D — Additional Financial Statements

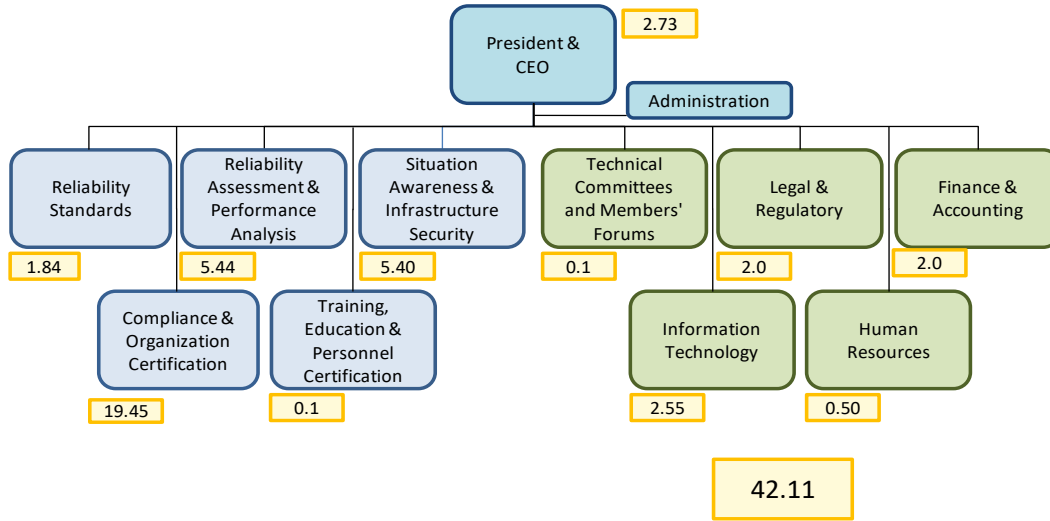
NPCC Statement of Activities 2022 Budget		RE Division Total	Reliability Standards (Section 300)	Compliance Monitoring and Enforcement and Organization Registration and Certification (Section 400 & 500)	Reliability Assessment and Performance Analysis (Section 800)	Training, Education, and Operator Certification (Section 900)	Situation Awareness and Infrastructure Security (Section 1000)	Technical Committees and Member Forums	Administrative Services
Funding									
ERO Funding									
	ERO Assessments	15,912,313	957,270	9,196,118	3,710,864	138,664	2,432,690	-	(523,294)
	Penalty/Sanctions	201,132	9,553	128,838	33,307	516	28,918	-	-
	Total ERO Funding	16,113,445	966,823	9,324,956	3,744,171	139,181	2,461,608	-	(523,294)
	Membership Dues	-	-	-	-	-	-	-	-
	Testing Fees	-	-	-	-	-	-	-	-
	Services & Software	-	-	-	-	-	-	-	-
	Workshops & Misc Revenue	33,750	-	-	-	33,750	-	-	-
	Interest & Investment Income	28,465	-	-	-	-	-	-	28,465
	Total Funding (A)	16,175,660	966,823	9,324,956	3,744,171	172,931	2,461,608	-	(494,829)
Expenses									
Personnel Expenses									
	Salaries	9,072,408	398,873	3,863,613	1,232,794	23,642	1,009,298	26,868	2,544,187
	Payroll Taxes	595,815	23,836	286,998	79,765	1,471	68,007	1,395	135,739
	Benefits	2,234,738	100,793	1,001,839	332,187	6,283	202,785	5,889	590,851
	Retirement Costs	1,041,405	42,512	422,710	133,166	2,434	110,066	2,813	330,517
	Total Personnel Expenses	12,944,366	566,014	5,575,160	1,777,913	33,830	1,390,156	36,964	3,801,294
Meeting Expenses									
	Meetings	221,100	3,000	4,000	17,250	112,400	4,800	4,050	79,650
	Travel	505,572	54,540	161,472	129,720	9,000	56,580	2,460	94,260
	Conference Calls	9,500	-	-	-	-	-	-	9,500
	Total Meeting Expenses	736,172	57,540	165,472	146,970	121,400	61,380	6,510	183,410
Operating Expenses, excluding Depreciation									
	Consultants & Contracts	839,650	20,000	32,000	692,000	-	30,000	-	65,650
	Office Rent	906,141	-	-	-	-	-	-	906,141
	Office Costs	1,218,071	2,242	17,434	8,030	348	8,313	-	1,181,703
	Professional Services	1,017,000	-	-	-	-	-	-	1,017,000
	Miscellaneous	51,000	-	-	-	-	-	-	51,000
	Total Operating Expenses, excluding Depreciation	4,031,862	22,242	49,434	700,030	348	38,313	-	3,221,494
	Total Direct Expenses	17,712,400	645,796	5,790,066	2,624,913	155,578	1,489,849	43,474	7,006,199
	Indirect Expenses	(358,417)	315,748	4,258,335	1,100,852	17,067	955,779	(43,474)	(7,006,199)
	Other Non-Operating Expenses	-	-	-	-	-	-	-	-
	Total Expenses (B)	17,353,983	961,544	10,048,401	3,725,765	172,645	2,445,627	-	-
	Change in Net Assets (=A-B)	(1,178,323)	5,279	(723,445)	18,406	285	15,980	-	(494,829)
Fixed Asset Additions									
	Computer & Software CapEx	73,150	-	-	-	-	-	-	73,150
	Furniture & Fixtures CapEx	19,000	-	-	-	-	-	-	19,000
	Equipment CapEx	-	-	-	-	-	-	-	-
	Leasehold Improvements	19,000	-	-	-	-	-	-	19,000
	Allocation of Fixed Asset Additions	-	5,279	71,199	18,406	285	15,980	-	(111,150)
	Fixed Asset Additions, excluding Right of Use Assets (C)	111,150	5,279	71,199	18,406	285	15,980	-	-
	TOTAL BUDGET (=B + C)	17,465,133	966,823	10,119,600	3,744,171	172,931	2,461,608	-	-
	TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	(1,289,473)	0	(794,644)	0	(0)	-	-	(494,829)
	FTEs	49.90	1.85	24.95	6.45	0.10	5.60	0.10	10.95

Section D — Additional Financial Statements

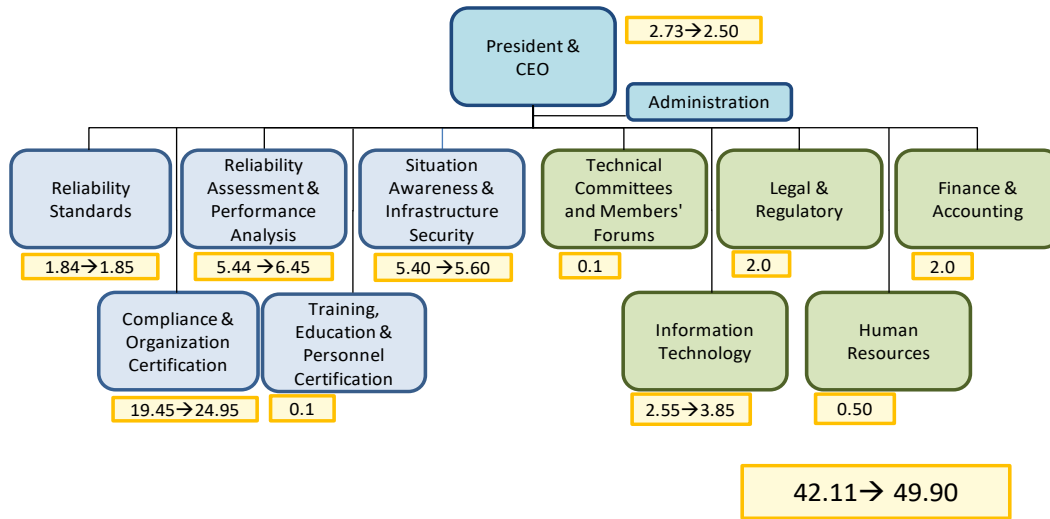
NPCC Statement of Activities 2022 Budget		Criteria Services Total	Criteria Development	Criteria Assessment	General and Administrative
Funding					
ERO Funding					
	ERO Assessments	-			
	Penalty Sanctions	-			
	Total ERO Funding	-	-	-	-
	Membership Dues	636,745	495,010	452,602	(310,866)
	Testing Fees	-	-	-	-
	Services & Software	-	-	-	-
	Workshops & Misc Revenue	-	-	-	-
	Interest & Investment Income	1,535	-	-	1,535
	Total Funding (A)	638,280	495,010	452,602	(309,331)
Expenses					
Personnel Expenses					
	Salaries	349,040	195,611	153,429	-
	Payroll Taxes	25,056	12,823	12,233	-
	Benefits	66,252	32,312	33,940	-
	Retirement Costs	37,526	20,910	16,617	-
	Total Personnel Expenses	477,875	261,656	216,220	-
Meeting Expenses					
	Meetings	8,400	900	7,500	-
	Travel	34,080	16,920	17,160	-
	Conference Calls	-	-	-	-
	Total Meeting Expenses	42,480	17,820	24,660	-
Operating Expenses, excluding Depreciation					
	Consultants & Contracts	56,000	30,000	26,000	-
	Office Rent	-	-	-	-
	Office Costs	2,989	1,401	1,589	-
	Professional Services	-	-	-	-
	Miscellaneous	4,000	2,000	2,000	-
	Total Operating Expenses, excluding Depreciation	62,989	33,401	29,589	-
	Total Direct Expenses	583,344	312,876	270,468	-
	Indirect Expenses	358,417	179,208.49	179,208.49	-
	Other Non-Operating Expenses	-	-	-	-
	Total Expenses (B)	941,761	492,085	449,677	-
	Change in Net Assets (=A-B)	(303,481)	2,925	2,925	(309,331)
Fixed Asset Additions					
	Computer & Software CapEx	3,850	1,925	1,925	-
	Furniture & Fixtures CapEx	1,000	500	500	-
	Equipment CapEx	-	-	-	-
	Leasehold Improvements	1,000	500	500	-
	Allocation of Fixed Asset Additions	-	-	-	-
	Fixed Asset Additions, excluding Right of Use Assets (C)	5,850	2,925	2,925	-
	TOTAL BUDGET (=B + C)	947,611	495,010	452,602	-
	TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	(309,331)	-	-	(309,331)
	FTEs	2.10	1.05	1.05	0

Appendix A Staff Allocations

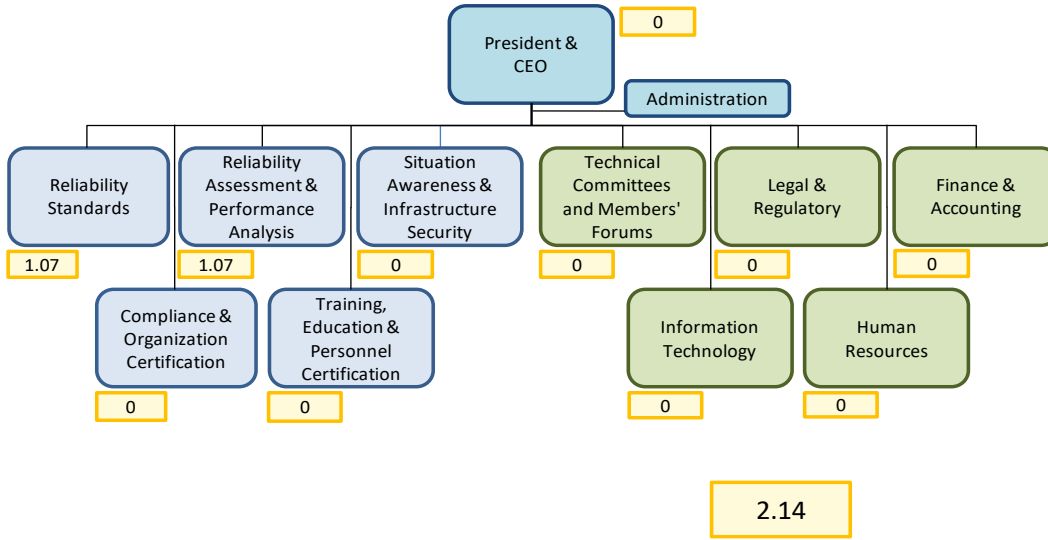
2021 Budget Staff Allocations - RE Division



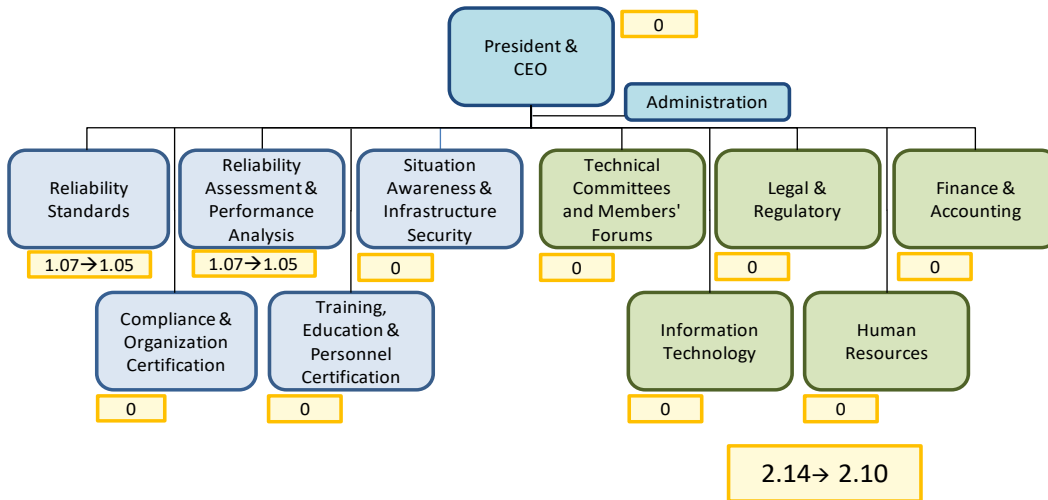
2022 Budget Staff Allocations - RE Division



2021 Budget Staff Allocations - CS Division



2022 Budget Staff Allocations - CS Division



Appendix B Acronyms

This section lists acronyms used in this document.

Acronym	Definition
AI	Audits and Investigations
BAA	Balancing Authority Area
BEP	BES Exception Process
BES	Bulk Electric System
BPS	Bulk Power System
CAP	Crisis Action Plan
CC	Compliance Committee
CCEP	Criteria Compliance and Enforcement Program
CDA	CMEP Data Administration Application
CEH	Continuing Education Hour
CGNC	Corporate Governance and Nominating Committee
CMEP	Compliance Monitoring and Enforcement Program
COP	Compliance Oversight Plan
CORC	Compliance Monitoring and Enforcement and Organization Registration and Certification Program
CORES	Centralized Organization Registration ERO System
CUG	Consortium Users Group
DADSUG	Demand Response Availability Data System User Group
DER	Distributed Energy Resources
DHS	Department of Homeland Security
DOE	Department of Energy
EAP	ERO Event Analysis Process
EGWG	Electric-Gas Working Group
EIC	Evaluation of Internal Controls
E-ISAC	Electricity Information Sharing and Analysis Center
EPHPIS	Electric Power Human Performance Improvement Symposium
ERAG	Eastern Interconnection Reliability Assessment Group
ERATF	Energy Reliability Assessment Task Force
ERO	Electric Reliability Organization
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, Track and Report
FTE	Full Time Equivalent
GADSUG	Generating Availability Data System User Group
GMD	Geomagnetic Disturbance
HQCMÉ	Hydro-Québec Contrôle des mouvements d'énergie
HSIN	Homeland Security Information Network
IESO	Independent Electricity System Operator
IRA	Inherent Risk Assessment
IRPWG	Inverter-Based Resource Performance Working Group
ISO	Independent System Operator
LMWG	Load Modeling Working Group
LSE	Load Serving Entity
MACD	Market Assessment and Compliance Division
MDCC	Management Development and Compensation Committee
ME	Mitigation and Enforcement
MIDASUG	Misoperation Information Data Analysis System User Group
MMWG	Multi-Regional Modeling Working Group
MOU	Memorandum of Understanding
NAERM	North American Energy Resilience Model
NAESB	North American Energy Standards Board
NATF	North American Transmission Forum
NBEUB	New Brunswick Energy and Utilities Board
NBMG	Node Breaker Modeling Group

Appendix B

Acronym	Definition
NCCIC	National Cybersecurity and Communications Integration Center
NEL	Net Energy for Load
NERC	North American Electric Reliability Corporation
NLH	Newfoundland and Labrador Hydro
NOI	Notice of Inquiry
NOPR	Notice of Proposed Rulemaking
NPCC	Northeast Power Coordinating Council, Inc.
NSPI	Nova Scotia Power Incorporated
NSUARB	Nova Scotia Utility and Review Board
OEB	Ontario Energy Board
OLT	Operations Leadership Team
ORCG	Organization Registration and Certification Group
PAS	Performance Analysis Subcommittee
PAWG	Probabilistic Assessment Working Group
PC	Pension Committee
PJM	Pennsylvania-Jersey-Maryland Interconnection LLC., Regional Transmission Organization
PPMVTf	Power Plant Model Verification Task Force
PSWG	Physical Security Working Group
QCMEP	Québec Reliability Standards Compliance Monitoring and Enforcement Program
RAPA	Reliability Assessment and Performance Analysis
RAPA-SG	ERO RAPA Steering Group
RAS	Reliability Assessment Subcommittee
RAS	Remedial Action Scheme
RC	Reliability Coordinator
RCC	Reliability Coordinating Committee
RISC	Reliability Issues Steering Committee
RSC	Regional Standards Committee
RSTC	Reliability and Security Technical Committee
RTWG	Reliability Training Working Group
RTO	Regional Transmission Organization
SAFNR	Situational Awareness-FERC, NERC, Regions
SAIS	Situation Awareness and Infrastructure Security
SAMS	System Analysis and Modeling Subcommittee
SAR	Standards Authorization Request
SCPS	Standards Committee Process Subcommittee
SDT	Standards Drafting Team
SEL	Seque Evidence Locker
SITES	Security Integration and Technology Enablement Subcommittee
SPCWG	System Protection and Control Working Group
SMWG	Synchronized Measurement Working Group
SPIDERWG	System Planning Impacts from Distributed Energy Resources Working Group
SPS	Special Protection Systems
TADSUG	Transmission Availability Data System User Group
TFCO	Task Force on Coordination of Operation
TFCP	Task Force on Coordination of Planning
TFE	Technical Feasibility Exception
TFIST	Task Force on Infrastructure Security and Technology
TFSP	Task Force on System Protection
TFSS	Task Force on System Studies
UFLS	Underfrequency Load Shedding
VER	Variable Energy Resources

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DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 5

RELIABILITYFIRST CORPORATION

PROPOSED 2022 BUSINESS PLAN AND BUDGET



RELIABILITY FIRST

**RELIABILITYFIRST CORPORATION
2022 BUSINESS PLAN AND BUDGET**

**APPROVED BY BOARD OF DIRECTORS
JUNE 17, 2021**

FINAL DRAFT

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Introduction

The following table summarizes ReliabilityFirst Corporation's (ReliabilityFirst) budget for 2022.

	2022 Budget			
	(in whole dollars)	U.S.	Canada	Mexico
Statutory FTEs	88.6			
Non-statutory FTEs	-			
Total FTEs	88.6			
Statutory Expenses	\$ 26,099,927			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 26,099,927			
Statutory Inc(Dec) in Fixed Assets	\$ 120,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ 120,000			
Statutory Working Capital Requirement	\$ 766,700			
Non-Statutory Working Capital Requirement	\$ -			
Total Working Capital Requirement	\$ 766,700			
Total Statutory Funding Requirement	\$ 26,986,627			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 26,986,627			
Statutory Funding Assessments	\$ 23,447,945	\$ 23,447,945	\$ -	\$ -
Non-Statutory Fees	\$ -	\$ -	\$ -	\$ -
NEL (MWH)	-		-	-
NEL%	100%	100%	0%	0%

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a high reliable and secure North American bulk power system (BPS). Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness, and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. The Regional Entities have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions

are completed. Both NERC and the Regional Entities have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.

Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.



ERO Enterprise Strategic and Operational Planning

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the [ERO Enterprise Long-Term Strategy](#) as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified BPS risks. This strategy, which was approved by the NERC Board of Trustees (Board) on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial [ERO Reliability Risk Priorities Report](#);
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization's Business Plan and Budget may reference how activities support each of the strategic focus areas.

Since risks to reliability and security are fluid and can be impacted by recent events, NERC and each Regional Entity may also create annual work plan priorities that summarize the most critical goals and objectives for the year. In many cases, these work plan priorities are also used for individual, departmental, and company performance measurement.¹

ReliabilityFirst Organizational Overview

ReliabilityFirst is a not-for-profit corporation incorporated in the State of Delaware and authorized by the Federal Energy Regulatory Commission (FERC) to operate as a Regional Entity. ReliabilityFirst is responsible for promoting and improving the reliability, security and resiliency of the Bulk Electric System (BES) in all or parts of thirteen states and the District of Columbia. As a Regional Entity, ReliabilityFirst performs key reliability functions delegated to it by NERC. These include:

- Active participation in the development of North American Reliability Standards for the BES, and as needed, development of Reliability Standards applicable within the ReliabilityFirst Region.
- Monitoring and enforcement of approved Reliability Standards, including the registration of responsible entities, and as needed, certification of such entities.
- Assessment of the present and future reliability, resiliency, security, and risks of the BES.

¹ The [2021 ERO Work Plan Priorities](#) were approved by the NERC Board in November 2020. NERC management and the Board evaluate annual work plan priorities throughout the year.

- Promoting effective training and education of personnel and entities.
- Promoting situational awareness and the protection of critical infrastructure.

ReliabilityFirst intends to perform only the functions delegated to it by the ERO in 2022.

Membership and Governance

Members

ReliabilityFirst has an open membership policy that permits participation of all industry stakeholders through their designated representatives. There are six (6) Industry Sectors: Suppliers, Transmission Companies, Regional Transmission Organizations (RTOs), Small Load Serving Entities (LSEs), Medium LSEs, and Large LSEs. There are three (3) Classes of Members: Regular Members, Associate Members, and Adjunct Members (an Associate Member is an affiliate or related party of a Regular Member, and an Adjunct Member is an entity that does not qualify to join an Industry Sector but has been approved for membership).

There are currently 57 Members of ReliabilityFirst; 41 are Regular Members with voting rights, 6 are Associate Members, and 10 are Adjunct Members. ReliabilityFirst's foundation has been and continues to be the broad, active participation of volunteer technical and policy experts representing electricity industry stakeholders within the Region who are committed to the reliability, security, and resiliency of the BES. ReliabilityFirst believes that partnering with industry expert resources, combined with a competent and independent ReliabilityFirst staff, provides a cost effective approach that is consistent with the industry self-regulatory model envisioned by Congress in the Energy Policy Act of 2005.

Board of Directors

ReliabilityFirst is governed by a hybrid, independent, and balanced stakeholder Board that consists of 15 Directors.

- Eight (8) Directors are elected by the Industry Sectors as follows:
 - Suppliers elect two (2) Directors;
 - Transmission Companies elect two (2) Directors;
 - RTOs elect one (1) Director;
 - Small LSEs elect one (1) Director;
 - Medium LSEs elect one (1) Director; and
 - Large LSEs elect one (1) Director.
- Three (3) Directors are at-large. At-Large Directors are elected by all of the Industry Sectors voting together as a single class.
- Four (4) Directors are independent from ReliabilityFirst, any Member, Affiliate or Related Party of any Member. Independent Directors are elected by all of the Industry Sectors voting together as a single class. One of these Directors is appointed as a Lead

Independent Director who serves in the capacity to coordinate the activities of the other Independent Directors.

2022 Key Assumptions

The NERC and Regional Entity business plans and budgets reflect a set of strategic and operating objectives developed jointly by NERC and the Regional Entities. These strategic and operating objectives are set forth in the ERO Enterprise Long Term Strategy.

2022 Key Deliverables

- Promote a culture within the organization that addresses reliability risks across the ReliabilityFirst Region and the ERO Enterprise.
 - Ensure that the industry understands the essential reliability purpose of Reliability Standards and the corresponding expectations for those Reliability Standards.
 - Work with the industry to maintain and continuously improve effective risk control programs for reliability, security, and resiliency.
 - Use efficient processes and proportional exercise of discretion to verify that the industry meets reliability objectives.
- Identify the risks to reliability, security and resiliency in the ReliabilityFirst Region.
 - Identify, understand, and prioritize risks based on reliability impacts, projected resources, and emerging issues.
 - Analyze events and system performance consistently to determine sequence, cause, and remediation. Identify reliability risks and trends to define reliability, resiliency, and security related activities.
 - Ensure that the industry is well informed of emerging trends, risk analysis, lessons learned, and expected actions.
- Mitigate reliability risks.
 - Ensure that the industry understands identified risks and addresses them promptly and effectively.
 - Facilitate information sharing among the industry, Regions, ERO, and government.
 - Work with the ERO to track industry accountability for critical reliability recommendations.
- Communicate reliability risks.
 - Communicate identified and prioritized risks and mitigation strategies to the ERO Enterprise, across the ReliabilityFirst footprint, and/or to targeted entities, as appropriate.
 - Share staff expertise and leverage the expertise of ReliabilityFirst entities to advance industry practices surrounding risk identification, mitigation, and prevention.

- Promote a culture of reliability excellence, and facilitate and encourage continuous improvement through training and education.
- Ensure useful and reliable data modeling. Verify that the data represents system behavior accurately. Facilitate data sharing among the entities in the ReliabilityFirst region.
- Serve as a leading resource to industry and policy makers to supply reliability information.
- Serve as an independent, objective, and fair compliance monitoring and enforcement authority, without conflicts of interest.
 - Register entities commensurate to the risk they pose to the BES and ensure that all key entities are certified to have essential capabilities.
 - Ensure that all compliance monitoring and enforcement activities are risk-based, reliability-focused, and adhere to the requirements of the ReliabilityFirst delegation agreement and the Risk Based Compliance Monitoring and Enforcement Program (CMEP).
 - Ensure that all violations of mandatory Reliability Standards are mitigated in a timely, thorough, and comprehensive manner to prevent reoccurrence.
- Improve transparency, consistency, quality, and timeliness of results; collaborate with NERC and the other Regions; improve efficiencies and cost effectiveness.
 - Identify, understand, and manage internal risks.
 - Ensure processes are effective, efficient, and continually improving.

2022 Overview of Budget

This Business Plan and Budget reflects ReliabilityFirst's best estimate of the costs it will incur in carrying out its delegated functions in support of the ERO in 2022. Overall, the ReliabilityFirst 2022 budget of \$26,219,927 increased 5.8% over the 2021 budget of \$24,785,492. The 2022 assessment of \$23,447,995 represents a 3% increase over the 2021 assessment of \$22,764,995.

Personnel costs increased by \$1,128,747, an increase of 5.3% over the 2021 budget. Incorporated into the personnel costs are 4.25 additional Full Time Equivalents (FTE's) and a 3% general wage increase, and these costs are the primary drivers for the 2022 budget increase. ReliabilityFirst does not include a personnel vacancy rate because the corporation has operated with a turnover rate well below 5% for the last several years, and because the budget does not include the cost of the corporation's recruitment activities and relocation to attract necessary employee candidates.

The Meetings, Operating and Fixed Asset costs of \$3,938,489 increased by 8.4% over the 2021 budget of \$3,632,801. The increase was primarily the result of the following: 1) a \$124,296 increase in Contractors and Consultants primarily driven by Administrative Services network maintenance projects, security simulation activities, enhancing data management systems, and network and Audio/Visual upgrades, 2) a \$153,612 increase in Office costs, primarily driven by Computer Supplies and Maintenance for the purchase of new corporate laptops, along with a new

threat intelligence tool, and 3) \$150,430 increase in Professional Services due to an increase in Independent Director Fees for the annual retainer and the addition of one Independent Director. These variances were partially offset by a \$97,500 decrease in total Fixed Asset costs due to changes in projects planned in 2021 compared to 2022 and a \$30,000 reduction in Office Rent primarily as a result of additional budgeted office space lease costs in 2021 that were eliminated in 2022.

The ReliabilityFirst Board has approved a \$1,000,000 operating reserve for 2022, which is the same level that existed in 2021. This level of operating reserve is believed to be sufficient for any unbudgeted and unexpected expenditures of the organization, and is consistent with Board Policy.

The ReliabilityFirst Board also approved an increase in the target working capital reserve to \$6.7M. Historically, the working capital reserve has consisted of the amount necessary to satisfy projected cash flow for daily operations. In concert with the ERO Enterprise wide effort to better manage and stabilize assessments, the working capital reserve is used to enhance day to day cash flow management of expenditures, while providing the capability to stabilize future assessments. The operating and working capital reserves have been differentiated to enable more granular identification and control in the utilization and monitoring of these funds in the appropriate manner. Refer to section B-1 for more information on the working capital reserve.

The executive management group for NERC and the Regional Entities (known as the ERO EMG) concentrates on various initiatives to improve efficiency and consistency across NERC and the Regional Entities, including the development of enterprise-wide applications. As enterprise-wide projects are identified and prioritized by the ERO EMG, they are managed at NERC. ReliabilityFirst assumes agreed upon ERO Enterprise wide applications will be available, and has only included appropriate funding for applications and supporting systems necessary to satisfy its business needs that are not within the mutually agreed upon scope of the ERO Enterprise wide applications funded by NERC.

In the development of each annual Business Plan and Budget, ReliabilityFirst examines projected workload using the operating and strategic objectives referenced above and conducts a manpower analysis to determine staffing levels required to complete necessary tasks and meet the obligations of the Regional Delegation Agreement. The manpower analysis for 2022 yielded a requirement of 99 FTEs in order to fully address the expected workload.

Although ReliabilityFirst's manpower analysis justifies a need for 99 FTEs, its philosophy is to seek and achieve greater efficiencies in its tasks and workload each year. On this basis, ReliabilityFirst believes a staffing level of 88.6, which includes 4.25 additional FTE's, will be sufficient to perform its work. The need for these additional FTE's is described in the Compliance Monitoring, Enforcement, Human Resources and Finance and Accounting sections.

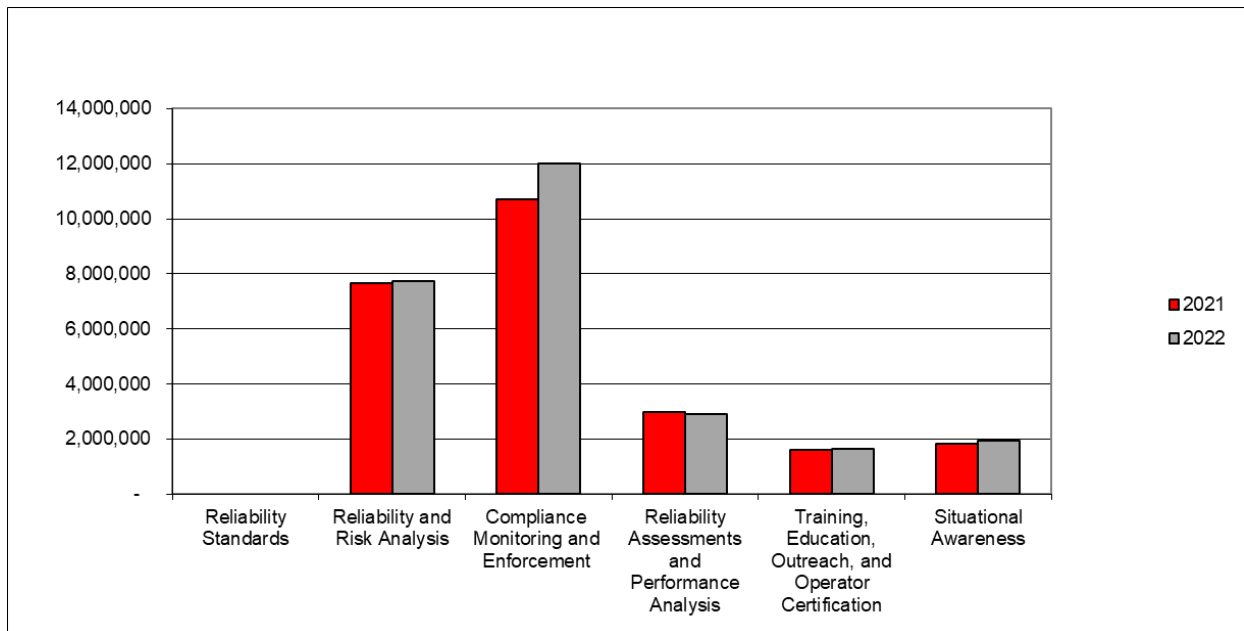
ReliabilityFirst will continue to ensure enhancements are being made in many process areas and that the maturation of the organization will continue to result in expected efficiency improvements.

Summary of Budget by Program Area

The following table and figure summarize and illustrate ReliabilityFirst's budget by program area.

Program	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Reliability Standards	-	-	-	-	0.0%
Reliability and Risk Analysis	7,657,553	7,471,493	7,751,602	94,050	1.2%
Compliance Monitoring and Enforcement	10,720,328	10,477,843	12,003,963	1,283,635	12.0%
Reliability Assessments and Performance Analysis	2,967,853	2,909,537	2,892,808	(75,045)	-2.5%
Training, Education, Outreach, and Operator Certification	1,597,369	1,421,190	1,631,907	34,538	2.2%
Situational Awareness	1,842,389	1,778,027	1,939,647	97,258	5.3%
Total	24,785,492	24,058,091	26,219,927	1,434,435	5.8%

2021 Versus 2022 Cost Allocation by Program Summary of Expenses



FTEs by Program Area

Total FTEs by Program Area	2021 Budget	2021 Projection	2022 Budget	Change from 2021 Budget
STATUTORY				
Operational Programs				
Reliability Standards	0.00	0.00	0.00	0.00
Reliability and Risk Analysis	20.00	20.00	20.00	0.00
Compliance Monitoring and Enforcement	30.00	30.00	33.00	3.00
Reliability Assessment and Performance Analysis	6.60	6.60	6.60	0.00
Training and Education	3.00	3.00	3.00	0.00
Situational Awareness	5.00	5.00	5.00	0.00
Total FTEs Operational Programs	64.60	64.60	67.60	3.00
Administrative Programs				
General and Administrative	4.00	4.00	4.00	0.00
Legal and Regulatory Affairs	3.00	3.00	3.00	0.00
Information Technology	7.00	7.00	7.00	0.00
Human Resources	3.00	3.00	4.00	1.00
Finance and Accounting	2.75	2.75	3.00	0.25
Total FTEs Administrative Programs	19.75	19.75	21.00	1.25
Total FTEs	84.35	84.35	88.60	4.25

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

2021 Budget and Projection and 2022 Budget Comparisons

The following table lists the 2021 budget and projection compared to the 2022 budget.

2021 Budget and Projection, and 2022 Budget					
STATUTORY					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirst Funding					
ReliabilityFirst Assessments	\$ 22,764,995	\$ 22,764,995	\$ -	\$ 23,447,945	\$ 682,950
Penalties Released*	4,540,000	4,540,000	-	3,488,681	(1,051,319)
Total ReliabilityFirst Funding	\$ 27,304,995	\$ 27,304,995	\$ -	\$ 26,936,627	\$ (368,369)
Membership Dues	\$ -	\$ -	\$ -	\$ -	\$ -
Interest and Investment Income	50,000	50,000	-	50,000	-
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	27,354,995	27,354,995	-	26,986,627	(368,369)
Expenses					
Personnel Expenses					
Salaries	\$ 15,372,329	\$ 15,422,812	\$ 50,483	\$ 16,274,245	\$ 901,916
Payroll Taxes	934,645	945,687	11,042	992,282	57,637
Benefits	2,351,930	2,174,762	(177,168)	2,412,806	60,876
Retirement Costs	2,493,787	2,584,046	90,259	2,602,105	108,318
Total Personnel Expenses	\$ 21,152,691	\$ 21,127,307	\$ (25,384)	\$ 22,281,438	\$ 1,128,747
Meeting Expenses					
Meetings & Conference Calls	\$ 379,635	\$ 136,641	\$ (242,994)	\$ 379,635	\$ -
Travel	601,000	150,304	(450,696)	601,000	-
Total Meeting Expenses	\$ 980,635	\$ 286,945	\$ (693,690)	\$ 980,635	\$ -
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 324,578	\$ 324,578	\$ -	\$ 448,874	\$ 124,296
Office Rent	628,092	564,856	(63,236)	598,092	(30,000)
Office Costs	956,776	956,776	-	1,110,388	153,612
Professional Services	481,335	536,244	54,909	631,765	150,430
Miscellaneous	43,885	43,885	-	48,735	4,850
Total Operating Expenses, excluding Depreciation	\$ 2,434,666	\$ 2,426,339	\$ (8,327)	\$ 2,837,854	\$ 403,188
Total Direct Expenses	\$ 24,567,992	\$ 23,840,591	\$ (727,401)	\$ 26,099,927	\$ 1,531,935
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 24,567,992	\$ 23,840,591	\$ (727,401)	\$ 26,099,927	\$ 1,531,935
Change in Net Assets (= A - B)	\$ 2,787,002	\$ 3,514,404	\$ 727,401	\$ 886,700	\$ (1,900,304)
Fixed Asset Additions, excluding Right of Use Assets (C)	217,500	217,500	-	120,000	(97,500)
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -
Inc/(Dec) in Fixed Assets	\$ 217,500	\$ 217,500	\$ -	\$ 120,000	\$ (97,500)
Total Budget (= B + C)	\$ 24,785,492	\$ 24,058,091	\$ (727,401)	\$ 26,219,927	\$ 1,434,435
Change in Working Capital (= A - B - C)	\$ 2,569,502	\$ 3,296,904	\$ 727,401	\$ 766,700	\$ (1,802,804)
FTEs	84.35	84.35	-	88.60	4.25

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Section A: Statutory Programs

Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	0.0	0.0	0.0
Direct Expenses	\$ -	\$ -	\$ -
Indirect Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ -	\$ -	\$ -

Program Scope and Functional Description

ReliabilityFirst provides input to the NERC Reliability Standards development process to help ensure the Standards adequately mitigate the risks they are intended to address, particularly those risks facing the ReliabilityFirst footprint, as well as help identify, evaluate and promote the amendment of Reliability Standards to ensure their efficiency, efficacy and appropriateness. ReliabilityFirst may develop Regional Reliability Standards as necessary. Regional Reliability Standards must be developed in accordance with the ReliabilityFirst Reliability Standards Development Procedure and must be more stringent than a NERC Reliability Standard, addressing a regional matter that the NERC Reliability Standard does not, or a regional difference necessitated by a physical difference in the BES.

To date, ReliabilityFirst has developed only one Regional Standard (Planning Resource Adequacy Analysis, Assessment and Documentation standard BAL-502-RF-03, approved by FERC on October 16, 2017) and has no current plans to develop any Regional Standards in 2022.

ReliabilityFirst may also develop regional criteria, which are good utility practices used to enhance the reliability of the BES and may augment Reliability Standards. Regional criteria are not Reliability Standards, and therefore are not enforceable. Regional criteria are developed in accordance with the ReliabilityFirst Reliability Standards Development Procedure. ReliabilityFirst has no current plans to develop regional criteria in 2022.

2022 Key Assumptions

The Reliability Standards Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy.

ReliabilityFirst previously reallocated the resources and expenses associated with the Reliability Standards Program to the Reliability and Risk Analysis and Compliance Monitoring Programs, due to decreased activity in the Reliability Standards Program. If any Reliability Standard or regional criteria needs to be developed, resources will be temporarily redeployed from the existing Reliability and Risk Analysis and Compliance Monitoring and Reliability Assessment and Performance Analysis Programs.

2022 Key Deliverables

- Review and provide feedback on potential reliability, security, resiliency, or efficiency concerns associated with existing NERC Reliability Standards and Reliability Standard Audit Worksheets and those under development.
- Although none are anticipated, submit to NERC, and subsequently file with FERC any new Regional Reliability Standards that:
 - May be needed to support revised NERC Reliability Standards.
 - May address reliability gaps not currently covered by NERC Reliability Standards.
- Although none are anticipated, submit to the ReliabilityFirst Board any new regional criteria that:
 - Address issues not within the scope of NERC Reliability Standards.
 - Promote more consistent implementation of a NERC Reliability Standard within the Region.
- Initiate and coordinate revisions to Regional Reliability Standards or regional criteria in any stage of development to align with NERC and FERC requirements.
 - Support enhanced periodic reviews focused on conducting measured, in-depth reviews to further improve Reliability Standards.
 - Support ERO activities necessary to incorporate Regional Reliability Standards into continent-wide Standards.
 - Retire Regional Reliability Standards and regional criteria that are duplicative with NERC Reliability Standards or no longer needed for reliability.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

No contractor or consultant support is budgeted in 2022.

Compliance Monitoring and Enforcement, and Organization Registration Program

Compliance Monitoring, and Enforcement, and Organization Registration Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	50.0	53.0	3.0
Direct Expenses	\$ 12,889,826	\$ 13,669,858	\$ 780,032
Indirect Expenses	\$ 5,319,711	\$ 5,991,624	\$ 671,914
Inc(Dec) in Fixed Assets	\$ 168,344	\$ 94,083	\$ (74,261)
Total Funding Requirement	\$ 18,377,880	\$ 19,755,565	\$ 1,377,685

Program Scope and Functional Description

The CMEP, and Organization Registration Program performs a variety of risk-based and dynamic activities to identify, communicate, and mitigate reliability, security and resiliency risks facing the ReliabilityFirst footprint. To achieve maximum effectiveness and consistency, ReliabilityFirst has delineated the responsibility to execute the Compliance Monitoring and Enforcement, and Organization Registration Program among three coordinated groups: Reliability and Risk Analysis, Compliance Monitoring, and Enforcement.

The Reliability and Risk Analysis group performs activities to drive continuous improvement, assess risk, and scope compliance monitoring and enforcement activities in accordance with risk. These activities, discussed in further detail in the Reliability and Risk Analysis section, include: (1) conducting Inherent Risk Assessments and developing Compliance Oversight Plans to assess the risk posed by each entity and determine a plan for compliance monitoring activities; (2) conducting Internal Controls Reviews and Management Practice Appraisals to drive continuous improvement and refine the scope of compliance monitoring activities based upon the maturity of the entity's internal controls; (3) conducting industry training and education; (4) developing lessons learned and identifying key trends to share with the industry; (5) performing registration activities; and (6) conducting risk assessments and supporting mitigation plan activities associated with noncompliances.

The Compliance Monitoring group monitors compliance to the NERC Reliability Standards (Reliability Standards) across ReliabilityFirst's registered owners, operators, and users of the BES through a variety of risk-based activities. These monitoring activities are key to reliability, security and resiliency, as they ensure that entities have effective controls in place and are following the requirements of the Reliability Standards. These activities, discussed in further detail in the Compliance Monitoring section, include compliance audits, spot checks, self-certifications, investigations, assessing complaints, and assessing system events from a reliability and compliance perspective to identify and ensure the mitigation of potential risks.

The Enforcement group is responsible for performing the delegated function to enforce, where necessary, compliance with the Reliability Standards. These efforts, discussed in further detail in the Enforcement section, involve ensuring that the selected disposition method for any noncompliance: (1) is clearly communicated; (2) is appropriately supported by the record in light of the risk posed by the noncompliance; and (3) promotes the desired entity behavior. The Enforcement group focuses on understanding the risks behind each noncompliance and how to effectively mitigate those risks, as well as sending the appropriate message to the noncompliant entity and the broader regulated community (whether deterrent-driven for undesired behavior or incentive-driven for desired behavior).

Major activities for the Reliability and Risk Analysis, Compliance Monitoring, and Enforcement groups include the continued implementation of the Risk-Based CMEP, and efforts connected to continue updating and revisions to the CIP Standards. These are joint ERO Enterprise level initiatives that benefit NERC, the Regional Entities, and the Registered Entities.

A detailed Program Scope and Functional Description for the Reliability and Risk Analysis, Compliance Monitoring, and Enforcement groups, as well as the Key Assumptions and Deliverables for each of these groups, can be found in their respective sections below.

Reliability and Risk Analysis

Reliability and Risk Analysis			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase
Total FTEs	20.0	20.0	0.0
Direct Expenses	\$ 5,462,331	\$ 5,455,109	\$ (7,222)
Indirect Expenses	\$ 2,127,884	\$ 2,260,990	\$ 133,106
Inc(Dec) in Fixed Assets	\$ 67,337	\$ 35,503	\$ (31,835)
Total Funding Requirement	\$ 7,657,553	\$ 7,751,602	\$ 94,050

The FTEs in this table are included in the Total FTEs in the Compliance Monitoring and Enforcement, and Organization Registration Program table on page 17.

Program Scope and Functional Description

Due to the ReliabilityFirst reorganization in Q2 2020 the Reliability Analysis group was formed to include Analytic Services and Risk Analysis and Mitigation. The activities performed by the Reliability Analysis group include: Continued and focused development of the ReliabilityFirst Data Warehouse for information storage and retrieval (the Data Warehouse is intended to centralize ReliabilityFirst's data sets and provide business intelligence capabilities for better integration of disparate data and add visualization functions to better identify areas of concern or areas needing additional analysis); lead the development and integration of advanced analytic & business intelligence capabilities for identifying and determining reliability risks; applying analytics framework by which grid reliability and risk can be measured and tracked; using statistical tools and techniques for analysis; performing quantitative assessments of data models; and partnering with other departments in conducting various risk assessments (e.g., Regional Risk Assessments and explorative Probabilistic, Predictive, Emerging Risk Assessments, etc.).

From a Risk Analysis and Mitigation perspective the activities performed include Inherent Risk Assessments (identifying risks impacting an entity); Compliance Oversight Plans (creating a plan to monitor the entity's compliance with selected NERC Reliability Standards) and Registration (processing registration requests). The group's activities also include mitigation plan acceptance, approval, and verification; processing and assessment of periodic data submittals; winter preparedness evaluations; risk-harm analysis of noncompliances and participation in the review of self-logged minimal risk issues; participate in outreach activities; BES Definition Exception Process activities; NERC-Led Registration Review Panel participation, reviewing and voting on NERC Standards Under Development and serving as a technical resource for the Corporation.

Reliability and Risk Analysis also includes Entity Engagement, which functions to assist stakeholders in improving their compliance programs and organizational reliability, risk identification and mitigation, security, and resilience; as well as, assisting stakeholders in achieving operational excellence, and improvements in organizational culture and overall program maturity.

2022 Key Assumptions

The Reliability and Risk Analysis group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy. The Reliability and Risk group also includes the following regional assumptions:

1. Inherent Risk Assessment/Compliance Oversight Plans activities are expected to become steady-state activities with the ongoing implementation of the Risk-Based CMEP. These activities include completing Inherent Risk Assessments and Compliance Oversight Plans for all Registered Entities which address emerging risks to reliability and are tailored to the inherent risks and performance posed by specific entities.
2. In accordance with FERC's Order approving NERC's Risk-Based Registration Initiative, registration staff continues to participate in the NERC-Led Registration Review Panels described in the NERC Rules of Procedure, Appendix 5A, Section III.D.
3. There will be an intentional focus on advanced analytics to support the described activities. This will include being instrumental in identifying emerging risks as well as development of metric driven root cause analysis.
4. There will be continued ERO Enterprise-wide collaboration and implementation of consistent risk-based compliance monitoring and enforcement practices and tools. In particular, ReliabilityFirst staff resources will be allocated to continue the development, design, testing, training, and implementation of the new ERO Enterprise ALIGN Tool. The full impact of the new ERO Enterprise ALIGN Tool is unknown at this time, however the anticipated increase in administrative and processing tasks related to the new tool will increase the cycle time for performing routine tasks.

2022 Key Deliverables

- Process all registration requests.
- Process BES Exception Requests submittals and NERC-Led Review Panels.
- Provide technical subject matter expertise and support for compliance monitoring and enforcement activities, regional outreach activities, and other initiatives as identified within ReliabilityFirst and/or the ERO.
- Support the development and integration of advanced analytical capabilities for identifying and determining reliability risks, and conducting various risk assessments (i.e. Regional Risk Assessments, Inherent Risk Assessments/Compliance Oversight Plans, Risk-Harm Assessments, and explorative Probabilistic Risk Assessment).
- Support ERO Enterprise-wide data collection (e.g. periodic Data Submittals) and analysis efforts.
- Participate in the annual Winter Preparedness program designed to help ensure the readiness of generating units to perform during extreme cold weather.

- Support the ongoing implementation of the Risk-Based CMEP, with a focus on the ongoing assessment of ReliabilityFirst Regional Risk Elements, and continued maturation of the Inherent Risk Assessment/Compliance Oversight Plans.
- Perform Inherent Risk Assessments/Compliance Oversight Plans of entities in alignment with the ERO Guide for Compliance Monitoring, to identify inherent risks of an entity and develop a plan to monitor the entity's compliance with selected NERC Reliability Standards based off their inherent risk and performance.
- Conduct risk-harm assessments and develop associated risk statements for all possible non-compliances to assess the potential risk posed by each noncompliance and inform the proper enforcement action(s).
- Perform mitigation plan activities in an effort to return entities to compliance and prevent reoccurrence by:
 - Reviewing proposed mitigation plans and accepting those that contain appropriate corrective and preventative actions.
 - Communicating with Enforcement and the entity throughout the mitigation plan review process to ensure defined corrective and preventative actions will mitigate the noncompliance.
 - Verifying mitigation plan completion through the evaluation of evidence provided by the entity to demonstrate that agreed-to actions have been implemented according to established milestones.
 - Participating in outreach activities to help entities move beyond baseline compliance.
- Perform reviews of self-logged non-compliances, submitted quarterly by entities granted logging privileges, to assess the non-compliances and their associated risk determinations and mitigating activities.
- Support regional workshops, Technical Talks and other engagements with entities.
- Using inherent risk assessment and Regional Risk Assessment results, analyze and recommend outreach for identified risks related to specific entities or groups of entities.
- Assist NERC with the coordination, planning, delivery, and management of training and outreach activities across the ERO Enterprise in concert with Region-specific training and outreach activities.
- Participate in the ERO Enterprise Collaboration Groups promoting collaboration and consistency amongst the Regions and functional area programs. Assume leadership roles as appropriate.
- Monitor initiatives related to grid resilience and security from the Cyber Resilient Energy Delivery Consortium, National Laboratories, Public Utility Commissions and the Department of Energy. Participate in these efforts as requested and appropriate,

incorporating lessons learned from these projects into ReliabilityFirst's tools and processes, and share lessons learned with stakeholders.

- Conduct Certifications and Certification Evaluations of Balancing Authority, Transmission Operator and Reliability Coordinator registered entities. Also perform Readiness Reviews with registered entities undergoing similar changes.
- Perform Assist Visits and Extended Assist Visits, including:
 - Provide guidance through entity Assist Visits on the CIP Reliability Standards, including a focus on new and revised Reliability Standards with technology related concerns including Cloud Computing, and Virtualization.
 - Continue targeted Extended Assist Visits with stakeholders that have been identified through Compliance, Enforcement, and/or Assessment engagements as needing long-term consultation by the ReliabilityFirst outreach staff.
- Implement and continue to mature programs and tools developed for entity self-assessment and self-evaluation of internal controls, organizational maturity, insider threat and cyber resilience.

Resource Requirements

- **Personnel**

As noted above in the 2022 Key Assumptions, time to complete routine CMEP related activities (mitigation plan acceptances/reviews and IRA/COP development) may initially increase significantly due to the roll out and Implementation of the new ERO Enterprise ALIGN Tool and primarily the Secure Evidence Lockers to address the need for greater data security.

- There are no planned changes in FTEs for 2022, however, ReliabilityFirst will continue to evaluate the need for additional future resources.

- **Contractors and Consultants**

No contractor or consultant support is budgeted to support efforts and initiatives in Reliability Analysis in 2022.

The Entity Engagement, Risk and Resilience and Continuous Improvement and Innovation Programs will also pursue an intern to assist the teams with relevant work activities. Projected workload for the remainder of 2021 and into 2022 is consistent with a need for an intern and not a FTE.

Reliability and Risk Analysis Budget Detail

The following table shows funding sources and related expenses for the Reliability and Risk Analysis section of the *2022 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Reliability and Risk Analysis					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirst Funding					
ERO Assessments	\$ 6,236,500	\$ 6,236,500	\$ -	\$ 6,704,655	\$ 468,155
Penalties Released*	1,405,573	1,405,573	-	1,032,154	(373,419)
Total ReliabilityFirst Funding	\$ 7,642,073	\$ 7,642,073	\$ -	\$ 7,736,809	\$ 94,737
Membership Dues	\$ -	\$ -	\$ -	\$ -	\$ -
Interest & Investment Income	15,480	15,480	-	14,793	(687)
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	7,657,553	7,657,553	-	7,751,602	94,050
Expenses					
Personnel Expenses					
Salaries	\$ 3,721,390	\$ 3,693,697	\$ (27,693)	\$ 3,706,649	\$ (14,741)
Payroll Taxes	229,341	228,398	(943)	228,357	(984)
Benefits	489,951	459,700	(30,251)	488,678	(1,273)
Retirement Costs	572,344	578,265	5,921	574,211	1,867
Total Personnel Expenses	\$ 5,013,026	\$ 4,960,060	\$ (52,966)	\$ 4,997,895	\$ (15,131)
Meeting Expenses					
Meetings & Conference Calls	\$ 9,600	\$ 2,200	\$ (7,400)	\$ 9,980	\$ 380
Travel	152,000	38,000	(114,000)	152,000	-
Total Meeting Expenses	\$ 161,600	\$ 40,200	\$ (121,400)	\$ 161,980	\$ 380
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 10,000	\$ 10,000	\$ -	\$ 10,000	\$ -
Office Rent	-	-	-	-	-
Office Costs	277,705	277,705	-	285,234	7,529
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses, excluding Depreciation	\$ 287,705	\$ 287,705	\$ -	\$ 295,234	\$ 7,529
Total Direct Expenses	\$ 5,462,331	\$ 5,287,965	\$ (174,366)	\$ 5,455,109	\$ (7,222)
Indirect Expenses	\$ 2,127,884	\$ 2,116,191	\$ (11,693)	\$ 2,260,990	\$ 133,106
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 7,590,215	\$ 7,404,156	\$ (186,059)	\$ 7,716,099	\$ 125,884
Change in Net Assets (= A - B)	\$ 67,337	\$ 253,397	\$ 186,059	\$ 35,503	\$ (31,835)
Fixed Asset Additions, excluding Right of Use Assets (C)					
Allocation of Fixed Assets	\$ 67,337	\$ 67,337	-	\$ 35,503	\$ (31,835)
Inc/(Dec) in Fixed Assets	\$ 67,337	\$ 67,337	\$ -	\$ 35,503	\$ (31,835)
Total Budget (= B + C)	\$ 7,657,553	\$ 7,471,493	\$ (186,059)	\$ 7,751,602	\$ 94,050
Change in Working Capital (= A - B - C)	\$ -	\$ 186,059	\$ 186,059	\$ -	\$ 0
FTEs	20.0	20.0	-	20.0	-

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Compliance Monitoring and Enforcement			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	30.0	33.0	3.0
Direct Expenses	\$ 7,427,495	\$ 8,214,749	\$ 787,254
Indirect Expenses	\$ 3,191,826	\$ 3,730,634	\$ 538,808
Inc(Dec) in Fixed Assets	\$ 101,006	\$ 58,580	\$ (42,426)
Total Funding Requirement	\$ 10,720,328	\$ 12,003,963	\$ 1,283,635

The FTEs in this table are included in the Total FTEs in the Compliance Monitoring and Enforcement, and Organization Registration Program table on page 17.

Compliance Monitoring

Program Scope and Functional Description

The activities performed by the Compliance Monitoring group to monitor and help ensure the reliability, security, and resiliency of the BES include: Operations and Planning (O&P) and Critical Infrastructure Protection (CIP) Audits; Spot Checks; Self-Certifications; Investigations; assessing Complaints; assessing entity internal controls as part of each engagement; evaluating system events from a reliability and compliance perspective to identify and ensure mitigation of potential risks; assisting in the review, approval, and verification of mitigation plans for noncompliances identified during compliance monitoring activities; and managing Technical Feasibility Exceptions (TFEs). The group also serves as industry subject matter experts and technical resources for the Corporation.

2022 Key Assumptions

The Compliance Monitoring group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy. The Compliance Monitoring group also includes the following regional assumptions:

1. Assure reliability by monitoring compliance to the Reliability Standards through CMEP processes (e.g., Audits, Spot Checks, Self-Certifications), using a risk-based approach, ensuring that all activities are completed per the established process and timelines.
2. Pursuant to the risk-based CMEP, all Entities will have an Inherent Risk Assessment completed to determine their Compliance Oversight Plans (COP). As required by the NERC Rules of Procedure, Balancing Authority, Transmission Operator, and Reliability Coordinator audits will continue to occur on a three year cycle. For all other Entities, ReliabilityFirst will evaluate the entity's Inherent Risk Assessment results and COP to identify Entity risks and develop its planned monitoring schedule and oversight approach.
3. The ERO Enterprise will continue to perform reviews of internal controls as part of the compliance monitoring engagement process. As the ERO Enterprise continues to mature

its approach on internal controls this will continue to add time to the monitoring process and increase workload.

4. The implementation of the Entity COP has resulted in (and is expected to continue to result in) more frequent touch points across each calendar year, and increased workload. More frequent touch points reduce the scope of an individual engagement but adds to the overhead of managing a larger amount of engagements throughout the year.
5. The ERO Enterprise will continue to collaborate and define ongoing training needs, priorities, and implementation schedules for the compliance staff. ReliabilityFirst will provide the necessary training to continue to provide a credible, skilled, competent, and respected compliance monitoring staff, making use of NERC, third party Region and other available training courses and regimens.
6. Staff will continue to collaborate with NERC as it develops the ERO Enterprise-wide Align tool.
7. With the CIP Standards being revised to include virtualization, the ERO Enterprise continues to evaluate:
 - a. Whether the approved and ongoing changes area will materially change the amount of rigor and time Regional Entities will need to spend on compliance monitoring activities for entities with High, Medium, and Low BES Assets, and BES Cyber Systems, including whether field visits will be required; and
 - b. Whether material changes or additions will be required by the Regional Entity and NERC outreach efforts to communicate requirements to these entities.

Results of this evaluation may impact the audit scope, regional resource requirements, and expectations that will need to be factored into future resource recommendations for the budget.

8. The continued increased complexity of the O&P and CIP Standards, and the substantial increase of assets within scope for the CIP Standards has increased the workload for auditors. Moreover, the time required to complete audit reviews often includes site and field visits, based on the scope of the audit and whether initial evidence provided is sufficient to substantiate that an entity is compliant. This has increased the time required for audits, and has added workload in the area that is expected to continue.

The ongoing revisions of the CIP Standards and technical nature of the O&P standards have also resulted in an additional workload to provide outreach and training to Entities. Entity outreach is expected to be an ongoing need, given the increasing complexity and continually evolving nature of cybersecurity and the Standards.

2022 Key Deliverables

- Manage all compliance monitoring activities in a risk-based, fair, and consistent manner, affording all entities appropriate due process.
- Perform internal controls reviews as part of the compliance monitoring engagement process.
- Conduct thorough and professional collaborative compliance audits consistently with all Regions through the incorporation of the Auditor Handbook, Checklist and the Align Tool. Audit teams will consist of staff supplemented, when necessary, by independent contractors.
- Prepare and distribute compliance monitoring reports to NERC and Registered Entities.
- Ensure all auditors receive adequate training, meet all NERC auditor training requirements, keep abreast of new and emerging technologies, and maintain professional certifications.
- Provide efficiencies in compliance monitoring processes through continued auditor training, development and enhancement of auditor tools, and continuous improvements.
- Monitoring Staff will support ERO and regional outreach and training efforts including the CIP Small Group Advisory Sessions, ReliabilityFirst Workshops (e.g. additional targeted workshops), CIP Focus Group Sessions, and CIP and O&P -related Assist Visits
- CIP audits will be performed as separate audits from Operations/Planning audits unless agreed to otherwise between ReliabilityFirst and the audited entity. The number of CIP engagements targeted for 2022 is defined below:
 - 15 CIP audits of Entities.
 - 6 CIP Spot Checks of Entities. These Spot Checks will be conducted on larger/medium sized Entities with High, Medium, and Low impact BES Cyber Systems.
 - 25 CIP Self-Certifications of entities with only Low impact BES Cyber Systems
- The number of Operations/Planning engagements planned for 2022 is defined below and will be based on the entity's Inherent Risk Assessment, Compliance Oversight Plan and risk the entity poses to the BES.
 - 10 on-site O&P audits of entities.
 - 44 other engagements of entities based upon the Entity COP which include either off-site audits, Spot Checks, or Self-Certifications based upon their Inherent Risk Assessment.
- Spot Checks and Self-Certifications will be used: (1) to assess performance to selected Reliability Standards when a full audit is not warranted; (2) as an alternate means of monitoring lower risk entities; and (3) on an as-needed basis to address identified risks. Guidance on when a Spot Check or Self-Certification may be appropriate is outlined in the annual CMEP Implementation Plan and will be augmented by ReliabilityFirst's Regional Risk Assessment, Inherent Risk Assessments, and results from compliance

monitoring activities that identify emerging risks. Spot Checks and Self-Certifications may also be used to confirm prior self-certifications, self-reports, and the status of mitigation plans or agreed-to mitigation activities associated with settlement agreements.

- Support NERC in continuing training and outreach for Registered Entities to successfully implement revisions to the CIP standards and Operations/Planning standards.
- Utilizing the results of the Inherent Risk Assessments and Regional Risk Assessment, lead development of the risk based annual CMEP implementation Plan in coordination with cross-functional groups.
- Complete Compliance Assessment Reviews of system events according to the ReliabilityFirst Compliance Assessment process, to determine if reliability issues associated with the system event require the initiation of a compliance monitoring process; performance of mitigation activities by involved entities; and/or industry outreach and education.

Resource Requirements

- **Personnel**

As discussed above in the 2022 Key Assumptions, the workload in the O&P and CIP monitoring area has continually increased and is expected to continue increasing. Two additional FTEs will be required in 2022 and ReliabilityFirst will continue to evaluate the need for additional future resources. This is driven by various factors, including the expansion of CIP scopes for entities with only Low Impact BES Cyber Systems, increased complexity of the Standards, and the fact that more Compliance Oversight Plans also include Spot Checks or Self-Certifications. Compliance monitoring teams now perform internal controls reviews as part of the compliance monitoring engagement process, which has added time and workload to engagements. All of these along with the enhanced security features included with the new ERO ALIGN CMEP tool, may require additional hours for the audit teams to complete their work.

- **Contractors and Consultants**

Contractor and consultant support is budgeted for 2022 to assist with continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.

Enforcement

Program Scope and Functional Description

The Enforcement group performs ReliabilityFirst’s delegated function to enforce compliance with the Reliability Standards. This effort involves ensuring that the selected disposition method for any noncompliance is consistent with the risk posed by the noncompliance; is adequately supported by the record; and promotes desired entity behaviors to enhance reliability.

In the event that a noncompliance is enforced, Enforcement staff is responsible for (1) drafting and negotiating with entities all necessary disposition documents; (2) ensuring all requisite notices are timely issued; (3) post-filing support and advocacy with NERC and FERC; (4) ensuring that the record and related disposition documents comply with all applicable FERC orders, rules, and regulations, NERC ROP, guidance, and ERO-wide program documents, and internal policies and procedures (collectively, “applicable orders, rules, and procedures”); and (5) participating in hearings where necessary. In the event that a noncompliance is not enforced (e.g., compliance exception or dismissal), Enforcement staff is responsible for (1) drafting all necessary internal disposition reports and external disposition documents and notices; (2) ensuring all requisite notices are timely issued; (3) post-filing support and advocacy with NERC and FERC; and (4) ensuring that the record and related disposition documents comply with all applicable orders, rules, and procedures.

For continuity and stakeholder convenience, Enforcement staff serve as a single point of contact for entities for noncompliance-related communications, including answering entity questions and providing regular updates on disposition matters. The Enforcement staff is heavily involved in external outreach to help entities understand potential noncompliance trends and themes that may be early indicators of programmatic or systemic challenges. The Enforcement staff also partners with the Risk Analysis and Mitigation staff to provide targeted training to entities focusing on quality self-reporting and mitigation strategies.

ReliabilityFirst frequently serves as the lead Region in resolving multi-regional enforcement actions for those registered entities that transverse multiple regions (designated as multi-regional registered entities or MRREs). Consequently, Enforcement staff devotes substantial resources to coordinate the enforcement work of various Regions, obtain consensus on a myriad of issues, and negotiate acceptable resolutions.

Enforcement staff regularly works with FERC, NERC, the other Regions, and industry to shape risk-based, effective enforcement policies that drive desired entity behavior. This work includes drafting, or supporting the drafting, of ERO-wide enforcement program documents and enforcement related regulatory filings, presenting and training on enforcement programs in various forums, and monitoring and managing enforcement metrics in support of NERC’s strategic Plan and Oversight Program. Enforcement staff also works with NERC and the other Regions to promote and otherwise ensure collaboration and implementation of consistent enforcement practices focused on higher reliability risks.

2022 Key Assumptions

The Enforcement group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy. It also includes the following regional assumptions:

1. The increased number of CIP noncompliances will, at a minimum, remain steady due to implementation of the CIP V5 Standards and certain Operations and Planning Standards, which increased the scope of assets covered and frequency of activities required relating to an entity's assets. The number of CIP noncompliances may increase as a result of proposed revisions to the CIP Standards.
2. ReliabilityFirst will process a larger volume of Settlement Agreements than it has in past years due to the complexity of the CIP Standards and increased focus on certain Operations and Planning Standards. Complex, higher-risk noncompliances disposed as Settlement Agreements will require approximately 70% of Enforcement resources. These matters often involve more complex mitigation, increased regional interaction with the entities, and additional analysis and advocacy regarding penalties and sanctions.
3. ReliabilityFirst anticipates that the majority of noncompliances will continue to trend as minimal or moderate risk; however the complexity of processing these noncompliances may continue to increase as entities' compliance history grows and technology continues to evolve and advance.
4. ReliabilityFirst will implement and utilize the new ERO tools for CMEP activities, including ALIGN and related platforms for exchanging entities' most sensitive information. Mostly due to increased security measures, these tools may increase the amount of administrative work for our enforcement case managers, compared to current tools and processes.
5. The Find Fix and Track (FFT) disposition method will be used for some moderate and minimal risk issues. It will continue to be used less often in favor of the Compliance Exception disposition method, which will be used for qualified minimal risk noncompliances.
6. Enforcement staff will spend significant time ensuring adequate records are created for all issues, including minimal risk issues. The expenditure of this time will be driven by anticipated receipt of minimal risk issues for the CIP V5 Standards, as well as increased participation in the self-logging program and case-by-case compliance exception mechanisms.
7. ReliabilityFirst will frequently serve as the lead Region for MRREs and will continue to support other Regions when ReliabilityFirst is the affected Region. The disposition of MRRE noncompliances takes additional time to coordinate dispositions, review mitigation, and negotiate acceptable solutions with Affected Regions.

8. Enforcement staff will work with FERC, NERC, the other Regions, and the industry to shape effective and risk-based enforcement policies that drive desired behavior and ensure consistency.
9. The number of hearings to be conducted is unknown, and therefore no internal or external resources have been budgeted for hearings.
10. Enforcement staff will provide outreach to industry through internal support of functional initiatives (e.g., Inherent Risk Assessments and the Regional Risk Assessments); workshop presentations and participation in panel discussions; webinars; targeted entity training; identification and sharing of lessons learned; and contributions to the ReliabilityFirst newsletter.

2022 Key Deliverables

- Continue to focus on resolving enforcement actions in a thoughtful, risk-based, reliability focused manner.
- Ensure that the use of discretion in Enforcement is internally documented, repeatable, and consistent with NERC directives and FERC orders, rules, and regulations.
- Conduct initial fact and circumstance reviews of noncompliances and communicate with the entity through each step of the enforcement process.
- Continue to work to refine the risk-harm assessment process, a key input into enforcement decision-making.
- Continue to increase efficiency, through process improvements, in dispositioning enforcement actions and preparing related documentation.
- Continue to work with NERC and the other Regions to shape a well-reasoned Enforcement philosophy that results in risk-based, uniform, repeatable, transparent, and reliability-focused approaches.
- Use knowledge obtained in the context of Inherent Risk Assessments and other evaluations to assure informed decision-making.
- Draft and negotiate with entities, as applicable, all necessary disposition documents.
- Ensure all requisite notices are timely issued, and provide post-filing support and advocacy with NERC and FERC.
- Ensure that the record of a noncompliance and the related disposition documents comply with all applicable orders, rules, and procedures.

Resource Requirements

- **Personnel**

As described in the Assumptions section, the workload for Enforcement has increased since the implementation of CIP version 5, and with the revision and implementation of certain Operations and Planning Standards. This increased volume has been sustained since the implementation of CIP version 5, and this is expected to continue, and potentially increase with the newest proposed revisions to the CIP Standards.

Enforcement works to enforce complex noncompliances while remaining an accessible single point of contact for our Registered Entities. The complexities of our entities and the nature of our industry continue to evolve, requiring more in-depth analysis to appropriately dispose of noncompliances. Additionally, the quality of risk communication, deeper understanding of our Registered Entities risk profiles, and our ability to identify trends, share lessons learned and proactively target and train entities based on risk and compliance history are necessary to the Enforcement department's effectiveness. Under the MRRE program, the Enforcement department serves as the Lead Regional Entity for many registered entities and their subsidiaries. The MRRE Program and efforts to increase transparency and consistency across the Regions has also resulted in additional workload.

Additionally, ReliabilityFirst has experienced an increase in processing times for moderate and serious risk violations due to multiple causes, including the complexity of the violations and mitigation especially relating to Full Notices of Penalty. This, together with the increased number of settlements (which is related to the complexity of our entities, increased complexity of the CIP Standards, and increased focused on certain Operations and Planning Standards), has resulted in additional resources needed to adequately process these violations. In addition, processing time for all individual noncompliance will likely increase as a result of new platforms for managing CMEP activities and exchanging related information with entities.

Based on the assumptions as stated above, ReliabilityFirst is including the addition of one FTE for Enforcement in the budget to continue to ensure it remains effective in addressing known risks through enforcement processing and to decrease its inventory of violations and prevent the creation of a backlog due to the sustained and expected increase in violations and number of settlements.

- **Contractors and Consultants**

No contractor and consultant support is budgeted in 2022.

Compliance Monitoring and Enforcement Budget Detail

The following table shows funding sources and related expenses for the Compliance Monitoring and Enforcement section of the *2022 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Compliance Monitoring and Enforcement					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirst Funding					
ERO Assessments	\$ 8,588,749	\$ 8,588,749	\$ -	\$ 10,276,500	\$ 1,687,751
Penalties Released*	2,108,359	2,108,359	-	1,703,054	(405,305)
Total ReliabilityFirst Funding	\$ 10,697,108	\$ 10,697,108	\$ -	\$ 11,979,554	\$ 1,282,447
Membership Dues	-	-	-	-	-
Interest & Investment Income	23,220	23,220	-	24,408	1,188
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	10,720,328	10,720,328	-	12,003,963	1,283,635
Expenses					
Personnel Expenses					
Salaries	\$ 5,128,355	\$ 5,136,027	\$ 7,672	\$ 5,778,419	\$ 650,064
Payroll Taxes	330,787	329,802	(985)	371,629	40,842
Benefits	773,137	708,564	(64,573)	835,456	62,319
Retirement Costs	789,805	799,580	9,775	884,951	95,146
Total Personnel Expenses	\$ 7,022,084	\$ 6,973,973	\$ (48,111)	\$ 7,870,455	\$ 848,371
Meeting Expenses					
Meetings & Conference Calls	\$ 9,825	\$ 2,500	\$ (7,325)	\$ 9,825	\$ -
Travel	226,000	56,491	(169,509)	226,000	-
Total Meeting Expenses	\$ 235,825	\$ 58,991	\$ (176,834)	\$ 235,825	\$ -
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 70,000	\$ 70,000	\$ -	\$ 10,000	\$ (60,000)
Office Rent	-	-	-	-	-
Office Costs	92,186	92,186	-	91,069	(1,117)
Professional Services	-	-	-	-	-
Miscellaneous	7,400	7,400	-	7,400	-
Total Operating Expenses, excluding Depreciation	\$ 169,586	\$ 169,586	\$ -	\$ 108,469	\$ (61,117)
Total Direct Expenses	\$ 7,427,495	\$ 7,202,550	\$ (224,945)	\$ 8,214,749	\$ 787,254
Indirect Expenses	\$ 3,191,826	\$ 3,174,287	\$ (17,540)	\$ 3,730,634	\$ 538,808
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 10,619,321	\$ 10,376,837	\$ (242,485)	\$ 11,945,383	\$ 1,326,062
Change in Net Assets (= A - B)	\$ 101,006	\$ 343,491	\$ 242,485	\$ 58,580	\$ (42,426)
Fixed Asset Additions, excluding Right of Use Assets (C)	-	-	-	-	-
Allocation of Fixed Assets	\$ 101,006	\$ 101,006	-	\$ 58,580	\$ (42,426)
Inc/(Dec) in Fixed Assets	\$ 101,006	\$ 101,006	\$ -	\$ 58,580	\$ (42,426)
Total Budget (= B + C)	\$ 10,720,328	\$ 10,477,843	\$ (242,485)	\$ 12,003,963	\$ 1,283,635
Change in Working Capital (= A - B - C)	\$ -	\$ 242,485	\$ 242,485	\$ -	\$ -
FTEs	30.0	30.0	-	33.0	3.0

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Reliability Assessment and Performance Analysis Program

Reliability Assessments and Performance Analysis Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	6.6	6.6	0.0
Direct Expenses	\$ 2,243,430	\$ 2,134,965	\$ (108,465)
Indirect Expenses	\$ 702,202	\$ 746,127	\$ 43,925
Inc(Dec) in Fixed Assets	\$ 22,221	\$ 11,716	\$ (10,505)
Total Funding Requirement	\$ 2,967,853	\$ 2,892,808	\$ (75,045)

Program Scope and Functional Description

ReliabilityFirst's Engineering and System Performance (ESP) group executes the Reliability Assessment and Performance Analysis (RAPA) program within ReliabilityFirst. This team independently analyzes, assesses, and reports on the reliability and adequacy of the BES within the ReliabilityFirst footprint. This program helps identify and assess risks across the region, and its deliverables are a major contributor to the risk-based efforts of the entire organization. The work includes the performance of resource and transmission assessment studies; special analyses and investigations as warranted; and the collection and dissemination of data, lessons learned, and other information. This program provides resources and data input for the technical analyses and support of the many risk-based activities described in the Reliability and Risk Analysis, Compliance Monitoring, and Enforcement sections. The program also facilitates four of the technical stakeholder committees and several other industry discussion groups.

2022 Key Assumptions

The Reliability Assessment and Performance Analysis Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy.

There are no additional assumptions unique to the ReliabilityFirst Reliability Assessment and Performance Analysis Program.

2022 Key Deliverables

- Assessments of Reliability Performance
 - Perform seasonal (summer and winter) risk analyses of the projected resource adequacy for PJM Interconnection, LLC (PJM) and Midcontinent Independent System Operator (MISO), the two Regional Transmission Organizations (RTO) that operate within ReliabilityFirst. As part of these risk analyses, the program produces seasonal RTO "waterfall" risk charts depicting the range of available capacity reserves for the forecasted normal (50/50) and extreme (90/10) seasonal peak demand levels, and historical long-term forecast and demand charts.

- Perform seasonal (summer and winter), near-term (typically five years into the future), and extreme transmission power-flow analysis assessments, and produce reports on the transmission assessment scope and results.
- Collect data and contribute to the production of assessment reports for the NERC Reliability Assessment Subcommittee's seasonal, special assessment, and long-term reports.
- Provide technical support for the ERO Enterprise's expanded and enhanced system studies and help perform analyses as needed.
- Work with neighboring Regional Entities within the Eastern Interconnection Reliability Assessment Group (ERAG) to perform Eastern Interconnection assessment studies and produce reports.
- Update power-flow base case models that represent the Bulk Power System within the ReliabilityFirst footprint as needed for regional study efforts.
- Reporting Requirements
 - Assist NERC in the collection, verification, and validation of data for the Transmission Availability Data System (TADS), Generator Availability Data System (GADS), Demand Response Availability Data System (DADS), Misoperation Information Data Analysis System (MIDAS), and Geomagnetic Disturbance Data System (GMD). All these systems can be used for data analytics across the ERO Enterprise.
- Other Requirements and Activities
 - Support risk-based activities with the development and review of lessons learned, best practices, and guidance documentation across the ERO Enterprise and industry. Continue to participate in the Eastern Interconnection Reliability Assessment Group (ERAG) and the Multiregional Modeling Working Group (MMWG).
 - Analyze protective relay misoperation information and track corrective action plans, as reported in the NERC MIDAS system. Facilitate a peer review process of this data via the ReliabilityFirst Protection Subcommittee.
 - Develop and maintain various data repositories, which includes, but is not limited to: support the development of ongoing data warehouse initiatives, maintenance of a linear contingency database, and maintenance of a data dictionary between GADS and the MMWG power-flow model.
 - In support of the ERO Enterprise, actively participate (and in some cases serve in leadership roles) in NERC committees, subcommittees, task forces, and other technical groups, such as the ERO Reliability Assessment and Performance Analysis Steering Group, Reliability Assessment Subcommittee, Performance Analysis Subcommittee, Probabilistic Assessment Working Group, and associated subgroups, as well as the MIDAS User Group, TADS User Group, and GADS User Group.

- Continue to support stakeholder participation and interaction through various regional technical groups, including the Reliability Committee (a technical advisory body to the ReliabilityFirst Board of Directors) and its subcommittees (i.e. Protection Subcommittee, Transmission Performance Subcommittee, Generation Subcommittee) and task forces. Facilitate several industry groups aimed toward continuous improvement and excellence.
- Provide the various regional technical groups with information and knowledge to help entities improve human performance. Conduct a human performance workshop and facilitate an industry group aimed toward continuous improvement and excellence.
- Provide Registered Entities with tailored training and interaction through recurring workshops (such as the Protection Workshop for Technical Personnel).
- Provide knowledge, techniques, and data input in support of ReliabilityFirst's risk-based activities, including the Inherent Risk Assessments and Regional Risk Assessment efforts.
- Provide the various Registered Entities with information and knowledge to help entities improve vegetation contacts on non-BES facilities. Initiate and facilitate an industry group aimed toward continuous improvement and excellence in vegetation management.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

Contractor and consultant support is budgeted to support:

- ERAG steady state and dynamic base case model assembly through the Multiregional Modeling Working Group (MMWG) processes.
- ERAG performance of power-flow analysis assessments.

The total cost of ERAG contractor and consulting support is shared across all four Regional Entities in the Eastern Interconnection.

Contractor and consultant support is also budgeted to assist with continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.

Reliability Assessment and Performance Analysis Program Budget Detail

The following table lists funding sources and related expenses for the Reliability Assessment and Performance Analysis section of the *2022 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Reliability Assessment and Performance Analysis					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirstFunding					
ERO Assessments	\$ 2,498,906	\$ 2,498,906	\$ -	\$ 2,547,315	\$ 48,409
Penalties Released*	463,839	463,839	-	340,611	(123,228)
Total ReliabilityFirst Funding	\$ 2,962,745	\$ 2,962,745	\$ -	\$ 2,887,926	\$ (74,819)
Membership Dues	-	-	-	-	-
Interest & Investment Income	5,108	5,108	-	4,882	(227)
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	2,967,853	2,967,853	-	2,892,808	(75,045)
Expenses					
Personnel Expenses					
Salaries	\$ 1,495,220	\$ 1,518,448	\$ 23,228	\$ 1,399,167	\$ (96,053)
Payroll Taxes	90,895	92,427	1,532	82,229	(8,666)
Benefits	162,238	143,630	(18,608)	145,186	(17,052)
Retirement Costs	228,591	243,735	15,144	221,857	(6,734)
Total Personnel Expenses	\$ 1,976,944	\$ 1,998,240	\$ 21,296	\$ 1,848,439	\$ (128,505)
Meeting Expenses					
Meetings & Conference Calls	\$ 8,000	\$ 3,500	\$ (4,500)	\$ 8,250	\$ 250
Travel	95,000	23,747	(71,253)	95,000	-
Total Meeting Expenses	\$ 103,000	\$ 27,247	\$ (75,753)	\$ 103,250	\$ 250
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 116,624	\$ 116,624	\$ -	\$ 130,624	\$ 14,000
Office Rent	-	-	-	-	-
Office Costs	46,862	46,862	-	52,652	5,790
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses, excluding Depreciation	\$ 163,486	\$ 163,486	\$ -	\$ 183,276	\$ 19,790
Total Direct Expenses	\$ 2,243,430	\$ 2,188,973	\$ (54,457)	\$ 2,134,965	\$ (108,465)
Indirect Expenses	\$ 702,202	\$ 698,343	\$ (3,859)	\$ 746,127	\$ 43,925
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 2,945,632	\$ 2,887,316	\$ (58,316)	\$ 2,881,092	\$ (64,540)
Change in Net Assets (= A - B)	\$ 22,221	\$ 80,537	\$ 58,316	\$ 11,716	\$ (10,505)
Fixed Asset Additions, excluding Right of Use Assets (C)	-	-	-	-	-
Allocation of Fixed Assets	\$ 22,221	\$ 22,221	-	\$ 11,716	\$ (10,505)
Inc/(Dec) in Fixed Assets	\$ 22,221	\$ 22,221	\$ -	\$ 11,716	\$ (10,505)
Total Budget (= B + C)	\$ 2,967,853	\$ 2,909,537	\$ (58,316)	\$ 2,892,808	\$ (75,045)
Change in Working Capital (= A - B - C)	\$ -	\$ 58,316	\$ 58,316	\$ -	\$ 0
FTEs	6.6	6.6	-	6.6	-

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Training, Education, Outreach, and Operator Certification Program

Training, Education, Outreach and Operator Certification Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	3.0	3.0	0.0
Direct Expenses	\$ 1,268,086	\$ 1,287,433	\$ 19,347
Indirect Expenses	\$ 319,183	\$ 339,149	\$ 19,966
Inc(Dec) in Fixed Assets	\$ 10,101	\$ 5,325	\$ (4,775)
Total Funding Requirement	\$ 1,597,369	\$ 1,631,907	\$ 34,538

Program Scope and Functional Description

Effective training and outreach is critical to leverage and advance industry practices surrounding risk identification, mitigation, and prevention. The ReliabilityFirst Training, Education and Outreach Program focuses on providing relevant training and assistance to stakeholders operating in the ReliabilityFirst region and across the ERO. ReliabilityFirst's training and outreach is structured to provide timely information in a concise format to enable participation at all levels within an organization.

ReliabilityFirst does not provide system operator certification training, as it would be duplicative with that offered by the Regional Transmission Organizations within the Region.

2022 Key Assumptions

The Training and Education Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy.

There are no additional assumptions unique to the ReliabilityFirst Training and Education Program.

2022 Key Deliverables

- **Industry and Stakeholder Education and Continuous Improvement**

ReliabilityFirst will continue its education and assistance efforts to help all stakeholders achieve improvement and excellence in compliance, reliability, risk identification, security, and resilience. Internally, this team will also facilitate training and continuous improvement of staff skillsets to assess stakeholder compliance and operational programs, culture, and maturity. These activities include:

- Assist NERC with the coordination, planning, delivery, and management of training and outreach activities across the ERO Enterprise in concert with Region-specific training and outreach activities.
- Participate in the ERO Enterprise staff learning development process through the ERO working groups and functional area program leaders.

- Issue announcements, newsletters, and reports on key compliance, reliability, risk identification and mitigation, security, and resilience issues facing ReliabilityFirst and the industry.
 - Communicate key risks and risk mitigation strategies.
 - In concert with various ReliabilityFirst departments, develop and publish lessons learned and best practices.
 - Provide continued guidance on the implementation of the Risk-Based CMEP, including Inherent Risk Assessments, Compliance Oversight Plans, and Internal Control Reviews
 - Identify and communicate common themes and root causes of Reliability Standard violations.
 - Hold open stakeholder calls (Technical Talk with ReliabilityFirst) covering topics related to compliance, reliability, security, resilience, and enforcement.
 - Share best practices concerning generator plant winter readiness.
 - Host targeted webinars on the compliance monitoring and enforcement processes, and other risk areas.
 - Increase focus on lessons learned or trends identified from reliability assessments.
 - Post educational materials on the ReliabilityFirst public website on pertinent reliability, risk, security, continuous improvement and resilience topics.
 - Develop capabilities for on-demand and virtual training opportunities on relevant reliability, risk, security, continuous improvement and resilience topics.
 - Deliver internal and stakeholder training related to the implementation of the new Align and Secure Evidence Locker platforms.
- **Industry Workshops and Outreach**

Continue workshops and outreach engagements to allow for information exchange between ReliabilityFirst and its stakeholders. Workshops and outreach will focus on understanding and mitigating risks to reliability, security, and resilience within the ReliabilityFirst footprint. Workshops and stakeholder outreach to be conducted include:

- One Reliability workshop (fall) to promote a culture of compliance focusing on reliability, security, resilience, risk management, internal controls, and targeted discussion on methods to demonstrate compliance.
- Protection Systems Workshop on key issues associated with protection systems (e.g., misoperations, maintenance and testing).

- Human Performance Workshop on practical application of human performance techniques and concepts for front-line activities such as operations, asset management, design, protection, and maintenance.
- Additional targeted outreach to address internal controls, cybersecurity, community outreach, emerging risks (e.g., misoperations, fuel security, changing generation mix, insider threats and cyber security technology) as the need is identified and the sessions can be scheduled.

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

Contractor and consultant support is budgeted to assist with continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.

Training, Education, Outreach and Operator Certification Program Budget Detail

The following table shows funding sources and related expenses for the Training, Education, and Operator Certification section of the *2022 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Training, Education, and Operator Certification Program					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirstFunding					
ERO Assessments	\$ 1,384,211	\$ 1,384,211	\$ -	\$ 1,474,865	\$ 90,654
Penalties Released*	210,836	210,836	-	154,823	(56,013)
Total ReliabilityFirst Funding	\$ 1,595,047	\$ 1,595,047	\$ -	\$ 1,629,688	\$ 34,641
Membership Dues	-	-	-	-	-
Interest & Investment Income	2,322	2,322	-	2,219	(103)
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	1,597,369	1,597,369	-	1,631,907	34,538
Expenses					
Personnel Expenses					
Salaries	\$ 707,053	\$ 707,265	\$ 212	\$ 697,612	\$ (9,441)
Payroll Taxes	36,672	37,526	854	37,514	842
Benefits	89,322	84,290	(5,032)	121,026	31,704
Retirement Costs	111,869	113,560	1,691	105,848	(6,021)
Total Personnel Expenses	\$ 944,916	\$ 942,641	\$ (2,275)	\$ 962,000	\$ 17,084
Meeting Expenses					
Meetings & Conference Calls	\$ 237,600	\$ 78,950	\$ (158,650)	\$ 207,230	\$ (30,370)
Travel	18,000	4,500	(13,500)	18,000	-
Total Meeting Expenses	\$ 255,600	\$ 83,450	\$ (172,150)	\$ 225,230	\$ (30,370)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 50,000	\$ 50,000	\$ -	\$ 80,000	\$ 30,000
Office Rent	-	-	-	-	-
Office Costs	17,070	17,070	-	19,703	2,633
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
Total Operating Expenses, excluding Depreciation	\$ 67,570	\$ 67,570	\$ -	\$ 100,203	\$ 32,633
Total Direct Expenses	\$ 1,268,086	\$ 1,093,661	\$ (174,425)	\$ 1,287,433	\$ 19,347
Indirect Expenses	\$ 319,183	\$ 317,429	\$ (1,754)	\$ 339,149	\$ 19,966
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,587,269	\$ 1,411,090	\$ (176,179)	\$ 1,626,582	\$ 39,313
Change in Net Assets (= A - B)	\$ 10,101	\$ 186,280	\$ 176,179	\$ 5,325	\$ (4,775)
Fixed Asset Additions, excluding Right of Use Assets (C)	-	-	-	-	-
Allocation of Fixed Assets	\$ 10,101	\$ 10,101	-	\$ 5,325	\$ (4,775)
Inc/(Dec) in Fixed Assets	\$ 10,101	\$ 10,101	\$ -	\$ 5,325	\$ (4,775)
Total Budget (= B + C)	\$ 1,597,369	\$ 1,421,190	\$ (176,179)	\$ 1,631,907	\$ 34,538
Change in Working Capital (= A - B - C)	\$ -	\$ 176,178	\$ 176,179	\$ -	\$ -
FTEs	3.0	3.0	-	3.0	-

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Situational Awareness Program

Situational Awareness Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	5.0	5.0	0.0
Direct Expenses	\$ 1,293,584	\$ 1,365,524	\$ 71,940
Indirect Expenses	\$ 531,971	\$ 565,248	\$ 33,277
Inc(Dec) in Fixed Assets	\$ 16,834	\$ 8,876	\$ (7,959)
Total Funding Requirement	\$ 1,842,389	\$ 1,939,647	\$ 97,258

Program Scope and Functional Description

The ReliabilityFirst Operational Analysis & Awareness (OAA) department focuses on Event Analysis, Situational Awareness, Threat Intelligence, and operational ReliabilityFirst and ERO Initiatives.

In support of the ERO Enterprise, OAA staff, in coordination with members of the Engineering and System Performance (ESP) and the Reliability and Risk Analysis groups, monitors present conditions on and emerging threats to the BES. OAA staff performs the event analysis process for system disturbances and events which includes working with entities to identify and analyze the root causes of system events, complete event analysis reports, and communicate the resulting information and lessons learned to the industry.

OAA staff performs ongoing monitoring of Situational Awareness utilizing various tools. This activity continues to evolve to provide the tools and information required by the staff and stakeholders to promote infrastructure protection to ensure reliability, security and resilience of the BES.

The Events Analysis, Situational Awareness and Threat Intelligence program activities support the ReliabilityFirst staff and Registered Entities in understanding potential threats to the electricity sector, maintaining an awareness of conditions on the BES, and identifying potential and emerging threats to the BES. OAA staff works on various internal initiatives to support and develop risks based-tools to drive tactical, strategic and risk informed decision making and collaborates with industry, stakeholders and the ERO community through various outreach activities.

2022 Key Assumptions

The OAA Event Analysis, Situational Awareness, and Threat Intelligence programs support the key value drivers and strategic focus areas set forth in the ERO Enterprise Long Term Strategy. They also include the following regional assumptions:

1. National level security exercises will be conducted to examine industry's cyber security and physical security preparedness and response capabilities through simulation of coordinated cyber and physical attacks on industrial control systems, System Control and

Data Acquisition, and information technology assets. OAA staff will participate in these exercises as appropriate.

2. OAA staff supports the ERO Enterprise through actively participating (and in some cases serving in leadership roles) in NERC committees, subcommittees, working groups, task forces, and other technical groups.
3. OAA staff will continue to support innovative and continuous improvement initiatives to drive efficiencies, effectiveness and risk informed decision making.
4. OAA staff will continue to support external collaboration with industry, other stakeholders, and the ERO Enterprise community.

2022 Key Deliverables

- Provide Information on CIP-Related Issues
 - OAA staff, in collaboration with the ReliabilityFirst CSO, support this activity which involves dissemination of information to entities from agencies such as the E-ISAC, the U.S. Department of Homeland Security, and others containing information on events or suspected events representing potential threats to the electricity sector.
 - OAA staff, as part of Situational Awareness activities, will work with members of the E-ISAC and NERC staff to use existing and further develop a robust messaging system for dissemination of Operational and CIP-related messages to the appropriate target audience and will promote the use of the messaging system for exchange of security-related information.
- Monitor the Health of the BES
 - The use of Situational Awareness tools by OAA staff has been evolving over the last few years. The ReliabilityFirst OAA staff continues to participate in the Situational Awareness for FERC, NERC, and the Regional Entities (SAFNR) project and uses the SAFNR displays developed through this project. ReliabilityFirst is a signatory to the NERC Operating Reliability Data Confidentiality Agreement and the SAFNR Subscriber Agreement and as such, uses tools such as the Reliability Coordinator Information System (RCIS), MISO Reliability Coordinator System (MCS), The Event Analysis Management System (TEAMS), System Data eXchange (SDX), Area Control Error (ACE), and Abnormal Frequency System Monitoring, in addition to current SAFNR Version to monitor the health of the BES within the ReliabilityFirst geographical area. In addition to the tools just mentioned, OAA staff continues to investigate other tools for monitoring the grid.
- Evolve and facilitate the ReliabilityFirst Threat Intelligence Program
 - OAA staff is evolving, leading and facilitating activities to monitor, quantify, and assess new and emerging threats to the BES. This includes assessing and exploring tools and techniques used to perform this activity in support of the Reliability and Risk Analysis program. The OAA staff will continue to enhance its

ability to collect and analyze data, leveraging the Analytic Services program to better identify and quantify emerging threats to the BES and to provide additional input to ReliabilityFirst staff, stakeholders and internally for various initiatives and projects (i.e. ReliabilityFirst Risk Register, ReliabilityFirst Regional Risk Assessment program, etc.)

- Engage in and contribute to ERO biennial GridEx and annual GridSecCon activities.
- Collect, validate, review, and analyze data for system events and disturbances as described in the ERO Event Analysis Process and the ReliabilityFirst Event Analysis Procedure.
 - For system events and disturbances, cooperate with NERC and FERC staff and other Regional staff to ensure root causes, corrective actions, lessons learned, and recommendations are identified and shared across the ERO Enterprise and the industry.
 - Collect and review disturbance reports as required in NERC Standard EOP-004 and as required by the Department of Energy in form OE-417.
- Author, publish and share lessons learned documents designed to convey lessons learned from NERC’s various activities such as the ERO Event Analysis Process and NERC/FERC supported initiatives (i.e. commissioning practices, data verification and validation, real-time assessments, etc.)
- Support ERO Enterprise-wide data collection and analysis efforts.
- Support and leverage cross-functional collaboration to use analytics within ReliabilityFirst and across the ERO Enterprise.
 - Collaborate with ESP in the verification and validation of data for the Transmission Availability Data System (TADS), Generator Availability Data System (GADS), Demand Response Availability Data System (DADS), and the Misoperation Information Data Analysis System (MIDAS).
 - Collaborate with Reliability and Risk Analysis and Monitoring, Enforcement, and Legal, to explore and develop analytical solutions, where applicable.
 - Collaborate with NERC and other Regional Entities on Analytics related initiatives and efforts via the ERO Analytics Community of Excellence (ACE).
- Engage and participate in the Event Analysis Subcommittee (EAS), ERO Event Analysis (EA), Energy Management System Working Group (EMSWG), System Protection & Control Working Group (SPCWG), and other ERO committees, working groups, task forces, as deemed necessary. Where possible, support industry conferences that address Monitoring and Situational Awareness, Energy Management Systems, Human Performance, Grid Security.
- Provide technical subject matter expertise and support for regional outreach activities, and other initiatives as identified within ReliabilityFirst and/or the ERO.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

Contractor and consultant support is budgeted to assist with innovation and continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.

Situational Awareness Program Budget Detail

The following table shows funding sources and related expenses for the Situational Awareness section of the 2022 Business Plan and Budget. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Situational Awareness					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirstFunding					
ERO Assessments	\$ 1,487,126	\$ 1,487,126	\$ -	\$ 1,677,911	\$ 190,784
Penalties Released*	351,393	351,393	-	258,039	(93,355)
Total ReliabilityFirst Funding	\$ 1,838,519	\$ 1,838,519	\$ -	\$ 1,935,949	\$ 97,430
Membership Dues	-	-	-	-	-
Interest & Investment Income	3,870	3,870	-	3,698	(172)
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	1,842,389	1,842,389	-	1,939,647	97,258
Expenses					
Personnel Expenses					
Salaries	\$ 843,467	\$ 841,644	\$ (1,823)	\$ 873,055	\$ 29,588
Payroll Taxes	52,832	53,464	632	54,875	2,043
Benefits	171,141	148,997	(22,144)	161,887	(9,254)
Retirement Costs	133,310	133,506	196	138,102	4,792
Total Personnel Expenses	\$ 1,200,750	\$ 1,177,611	\$ (23,139)	\$ 1,227,919	\$ 27,169
Meeting Expenses					
Meetings & Conference Calls	\$ 1,500	\$ 625	\$ (875)	\$ 500	\$ (1,000)
Travel	50,000	12,575	(37,425)	50,000	-
Total Meeting Expenses	\$ 51,500	\$ 13,200	\$ (38,300)	\$ 50,500	\$ (1,000)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 10,000	\$ 10,000	\$ -	\$ 20,000	\$ 10,000
Office Rent	-	-	-	-	-
Office Costs	31,334	31,334	-	67,105	35,771
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses, excluding Depreciation	\$ 41,334	\$ 41,334	\$ -	\$ 87,105	\$ 45,771
Total Direct Expenses	\$ 1,293,584	\$ 1,232,145	\$ (61,439)	\$ 1,365,524	\$ 71,940
Indirect Expenses	\$ 531,971	\$ 529,048	\$ (2,923)	\$ 565,248	\$ 33,277
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,825,555	\$ 1,761,193	\$ (64,362)	\$ 1,930,772	\$ 105,217
Change in Net Assets (= A - B)	\$ 16,834	\$ 81,197	\$ 64,362	\$ 8,876	\$ (7,959)
Fixed Asset Additions, excluding Right of Use Assets (C)					
Allocation of Fixed Assets	\$ 16,834	\$ 16,834	-	\$ 8,876	\$ (7,959)
Inc/(Dec) in Fixed Assets	\$ 16,834	\$ 16,834	\$ -	\$ 8,876	\$ (7,959)
Total Budget (= B + C)	\$ 1,842,389	\$ 1,778,027	\$ (64,362)	\$ 1,939,647	\$ 97,258
Change in Working Capital (= A - B - C)	\$ -	\$ 64,362	\$ 64,362	\$ -	\$ 0
FTEs	5.0	5.0	-	5.0	-

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

Administrative Services

Administrative Services (in whole dollars)						
	Increase (Decrease)			FTEs Increase (Decrease)		
	2021 Budget	2022 Budget		2021 Budget	2022 Budget	
General and Administrative	\$ 2,452,168	\$ 2,798,619	\$ 346,451	4.00	4.00	0.00
Legal and Regulatory	\$ 978,429	\$ 987,435	\$ 9,006	3.00	3.00	0.00
Information Technology	\$ 1,895,883	\$ 2,059,406	\$ 163,523	7.00	7.00	0.00
Human Resources	\$ 950,263	\$ 1,100,773	\$ 150,510	3.00	4.00	1.00
Finance and Accounting	\$ 813,823	\$ 815,914	\$ 2,091	2.75	3.00	0.25
Total Administrative Services	\$ 7,090,566	\$ 7,762,147	\$ 671,581	19.75	21.00	1.25

Program Scope and Functional Description

Administrative Services is comprised of the following programs: General and Administrative, Legal and Regulatory Affairs, Information Technology, Organizational Development and Human Resources, and Finance and Accounting.

Methodology for Allocation of Administrative Services Expenses to Programs

The majority of the Operating Expenses are accounted for within the related department's budget. If an expense cannot be specifically associated to a department, it is included in one of the Administrative Services programs. All expenses for the Administrative Services Programs, referred to as indirect expenses, are allocated proportionately based on FTE count to the direct programs. This allocation provides improved financial perspective for the direct program areas.

Administrative Services Budget Detail

The following table shows funding sources and related expenses for the Administrative Services section of the 2022 Business Plan and Budget. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

2021 Budget and Projection, and 2022 Budget					
Administrative Services					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ReliabilityFirstFunding					
ERO Assessments	\$ 2,569,503	\$ 2,569,503	\$ -	\$ 766,700	\$ (1,802,804)
Penalties Released*	-	-	-	-	-
Total ReliabilityFirst Funding	\$ 2,569,503	\$ 2,569,503	\$ -	\$ 766,700	\$ (1,802,804)
Membership Dues	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-
Miscellaneous Income	-	-	-	-	-
Total Funding (A)	2,569,503	2,569,503	-	766,700	(1,802,804)
Expenses					
Personnel Expenses					
Salaries	\$ 3,476,844	\$ 3,525,731	\$ 48,887	\$ 3,819,343	\$ 342,499
Payroll Taxes	194,118	204,070	9,952	217,678	23,560
Benefits	666,141	629,581	(36,560)	660,573	(5,568)
Retirement Costs	657,868	715,400	57,532	677,136	19,268
Total Personnel Expenses	\$ 4,994,971	\$ 5,074,782	\$ 79,811	\$ 5,374,730	\$ 379,759
Meeting Expenses					
Meetings & Conference Calls	\$ 113,110	\$ 48,866	\$ (64,244)	\$ 143,850	\$ 30,740
Travel	60,000	14,991	(45,009)	60,000	-
Total Meeting Expenses	\$ 173,110	\$ 63,857	\$ (109,253)	\$ 203,850	\$ 30,740
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 67,954	\$ 67,954	\$ -	\$ 198,250	\$ 130,296
Office Rent	628,092	564,856	(63,236)	598,092	(30,000)
Office Costs	491,619	491,619	-	594,625	103,006
Professional Services	481,335	536,244	54,909	631,765	150,430
Miscellaneous	35,985	35,985	-	40,835	4,850
Total Operating Expenses, excluding Depreciation	\$ 1,704,985	\$ 1,696,658	\$ (8,327)	\$ 2,063,567	\$ 358,582
Total Direct Expenses	\$ 6,873,066	\$ 6,835,297	\$ (37,769)	\$ 7,642,147	\$ 769,081
Indirect Expenses	\$ (6,873,066)	\$ (6,835,297)	\$ 37,769	\$ (7,642,147)	\$ (769,081)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (= A - B)	\$ 2,569,503	\$ 2,569,503	\$ -	\$ 766,700	\$ (1,802,804)
Fixed Asset Additions, excluding Right of Use Assets (C)	217,500	217,500	-	120,000	(97,500)
Allocation of Fixed Assets	\$ (217,500)	\$ (217,500)	-	\$ (120,000)	\$ 97,500
Inc/(Dec) in Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -
Total Budget (= B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Working Capital (= A - B - C)	\$ 2,569,503	\$ 2,569,503	\$ -	\$ 766,700	\$ (1,802,804)
FTEs	19.75	19.75	-	21.00	1.25

*Penalties released reflect the designated amount of funds released to offset U.S. assessments. Actual penalties invoiced are reported in the audited financial statements as an increase in net assets in accordance with Generally Accepted Accounting Principles (GAAP).

General and Administrative

Program Scope and Functional Description

The General and Administrative Department consists of the President and CEO, Chief Security Officer (CSO), and Senior Executive Assistant. Responsibilities include leadership, oversight, and management of all of ReliabilityFirst Corporation's activities, interacting with the Board of Directors and other Regional Entity Management Groups, and managing relationships with governmental agencies, regulators, members, stakeholders, and other industry organizations.

2022 Key Assumptions

The General and Administrative Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy. This program area also supports the oversight of the security posture, both cyber and physical, of the ReliabilityFirst personnel, assets, and information.

The office of the CSO will continue to support the ReliabilityFirst Critical Infrastructure Protection Committee (CIPC). With the reorganization of NERC's standing committees in 2019 resulting in the disbanding of the NERC CIPC, regional organizations sharing security information have taken on an even more important role in information sharing.

As a result of a third party security assessment performed by the ERO in fall 2019, ReliabilityFirst continues to enhance its security posture. To effectively achieve this enhancement, ReliabilityFirst follows the following assumptions related to enhancing our security posture:

1. ReliabilityFirst will implement a Data Loss Prevention strategy.
2. ReliabilityFirst will increase its cybersecurity resources
3. ReliabilityFirst will increase its security monitoring capability, including Network Traffic Analysis.

2022 Key Deliverables

- Support of the ReliabilityFirst CIPC
 - The purpose of the ReliabilityFirst CIPC is to share information concerning CIP and to promote CIP within the Region. The CSO will support the CIPC through the scheduling and facilitation of CIPC meetings and webinars and the dissemination of messages, alerts, and warnings from NERC, the E-ISAC, and the U.S. Department of Homeland Security (U.S. DHS) to the CIPC as permitted. CSO will also work to encourage and support sharing of information between entities and the E-ISAC.
- Support/Oversee ReliabilityFirst Staff Compliance to the NERC Cyber Security Standards (CIP-002 - CIP-014)
 - ReliabilityFirst is committed to complying with the intent of the NERC Cyber Security Standards. The CSO will provide training, guidance, and oversight to the

ReliabilityFirst staff, particularly the Information Technology staff, in achieving compliance to these Standards.

- Maintain and Test Business Continuity/Disaster Recovery and Pandemic Plans for the ReliabilityFirst Office
 - A business continuity plan deals with the ability to continue business functions in a degraded situation such as the loss of corporate assets including office space or computer assets.
 - A disaster recovery plan deals with a more complete loss of access to corporate assets due to a large-scale event such as a tornado or blackout.
 - A pandemic plan focuses on business continuity in the face of a declared pandemic.
- Assist stakeholders in complying with CIP Standards
 - As the NERC Cyber Security Standards (CIP-002 - CIP-011), the Physical Security Standard (CIP-014), and the Supply Chain Standard (CIP-013) evolve, entities will continue to monitor and implement revisions to the Standards. The CSO will be available to answer questions concerning these Standards and, in coordination with the ReliabilityFirst CIPC, will sponsor/support regional workshops and webinars as needed to foster the exchange of ideas and solutions developed by entities.
- Implement a Data Loss Prevention strategy
 - In coordination with the Information Technology department, identify and implement the tools needed to provide a data loss prevention capability for sensitive information maintained by ReliabilityFirst.
- Implement a Network Traffic Analysis technology solution
 - In coordination with the Information Technology department, identify and implement a technology solution that performs Network Traffic Analysis and alerts the ReliabilityFirst security team when anomalous network traffic is identified.
- Coordinate with the Information Technology department on the monitoring of and alerting on security events occurring on ReliabilityFirst networks and devices.
- Oversee the maintenance of the ReliabilityFirst Business Continuity Plan.
- Coordinate with the ReliabilityFirst President & CEO and the Board of Directors on the maturity of the ReliabilityFirst security program.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

No contractor and consultant support is budgeted in 2022.

Legal and Regulatory Affairs

Program Scope and Functional Description

The Legal and Regulatory Affairs program is responsible for four key areas: (1) all legal issues germane to the corporation; (2) regulatory affairs (communication and outreach to FERC, NERC, and various State regulatory bodies); (3) external affairs (communication and outreach to ReliabilityFirst stakeholders and the public); and (4) corporate governance of the ReliabilityFirst Board of Directors and its committees.

First, the program is responsible for all legal issues germane to the corporation. This includes ensuring legal and regulatory compliance with all applicable laws, orders, rules, and regulations; serving as advisor to the President and CEO and the Board of Directors; providing legal support to all other departments of the corporation; and drafting, reviewing, and maintaining the corporation's contracts, policies and procedures, and governance documents.

Second, the program is responsible for ReliabilityFirst's regulatory affairs. This includes communication and outreach to FERC, NERC, and State regulatory agencies on issues relating to ReliabilityFirst and/or the performance of its delegated functions; advising senior executives on strategic and tactical initiatives in light of the regulatory landscape; and advancing ReliabilityFirst's mission and strategic initiatives in a clear and articulate manner. This function also includes supporting internal and external audits of the corporation and overseeing all regulatory filings and interactions.

Third, the program plays a key role in ReliabilityFirst's external affairs. This includes legal review of communication and outreach to ReliabilityFirst's stakeholders, the general public, and media.

Finally, the program is responsible for the corporate governance of the ReliabilityFirst Board of Directors and its Committees. This includes the completion of all activities associated with the Corporate Secretary function (the General Counsel serves as the corporation's Corporate Secretary), such as preparing Board materials and minutes, facilitating and conducting Board training, and ensuring that Director elections, Board of Directors and Committee meetings, and Meetings of Members adhere to the ReliabilityFirst Bylaws and other relevant governing documents.

2022 Key Assumptions

The Legal and Regulatory Affairs Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy. There are no additional assumptions or deliverables unique to the Legal and Regulatory Affairs Program.

2022 Key Deliverables

- Support all legal and regulatory needs of the corporation.
- Provide legal support to all other departments of the corporation to ensure that those departments and their activities are consistent with NERC directives, FERC orders, rules, and regulations, and other applicable law.

- Provide legal support to make all necessary regulatory filings with FERC, NERC, and any other applicable regulatory body or agency, as well as support NERC in its efforts to do the same.
- Support internal and external audits of the corporation.
- Draft, review, and maintain the corporation's contracts, policies and procedures, and governance documents.
- Lead interactions with the FERC, NERC, the States, and other governmental agencies regarding ReliabilityFirst and its mission.
- Provide legal support and perform the Corporate Secretary function for the Board of Directors and support the corporate governance needs of the organization.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

No contractor and consultant support is budgeted in 2022.

Information Technology

Program Scope and Functional Description

The Information Technology (IT) department provides users with cost-effective information technology tools and proactively delivers enabling technologies to assist the departments in meeting their goals, objectives, and deliverables. The IT department minimizes the outsourcing of any critical infrastructure services and as such must implement and manage controls to maintain a robust security posture that minimizes ReliabilityFirst's risks. The department provides the necessary technical services in the following categories to ensure efficient and effective performance of all corporate functions:

- Infrastructure Maintenance (Data Center Management - Local/Remote)
- Hosting of Public and Multiple Secure Portal Websites
- Voice, Web, and Video Conferencing
- Vulnerability Management
- Mobile Device Management
- Wireless Network Management
- Audio/Video Management
- Document Management
- Email Management
- Help Desk Support
- Telecommuter Support
- Application Support and Development
- Data Warehousing Management
- Database Administration
- Business Analysis
- Information Security Protection and Monitoring
- Business Continuity and Disaster Recovery

ReliabilityFirst supports the ERO Enterprise's efforts to implement, operate, and maintain software tools supporting common enterprise-wide IT operations. ReliabilityFirst is committed to working collaboratively with NERC and the other Regions to minimize duplication of effort and investments, and improve operational efficiency. This collaboration continues to refine existing strategies, governance, and procurement practices applicable to the development, operation, and maintenance of enterprise architecture, software, and data systems supporting combined NERC and Regional Entity operations.

NERC's business plan and budget will include ongoing funding support for the development, operation, and maintenance of NERC and Regional Entity approved enterprise wide applications. Funding for these applications will be subject to the budget and funding limits set forth in NERC's approved business plan and budget. If implementation of these applications are delayed or otherwise not available as planned, ReliabilityFirst could incur additional costs to conduct operations pending the availability of these applications. ReliabilityFirst assumes agreed upon ERO Enterprise applications will be available and has only included appropriate funding for

applications and supporting systems necessary to satisfy its business needs that are not within the mutually agreed upon scope of the ERO Enterprise wide applications funded by NERC.

The implementation of an offsite Data Management Center will be in its ninth year of operation. Operational experience to date has been excellent and experts believe it to be very effective in IT resource utilization. Performance to date has provided savings in the operation of equipment, while affording the organization many benefits in security, utilities, and back-up capability.

2022 Key Assumptions

The IT Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the recently developed ERO 3 Year Cybersecurity Strategy 2021 – 2023. The objectives include the support for building and implementing centralized enterprise applications for the ERO and implementation of controls and processes to provide like protections to the identified ERO security risks, respectively. The IT Program includes the following regional assumptions:

1. Utilize Continuous improvement to maintain and advance the security posture across the corporation-wide data infrastructure and remediate any vulnerability to protect sensitive data.
2. Maintain lower fixed asset costs (infrastructure servers) by continuing operations of virtualization technologies, therefore minimizing replacement costs.
3. Maintain a stringent level of control of the Access Management Process that governs physical and electronic access to resources that contain sensitive corporate data.
4. Departmental processes and efficiencies must be continuously improved, including training exercises for implemented technologies in order to maintain proficiency.
5. Maintain a multi-layered security protection and monitoring environment governed by established controls, processes, and security awareness activities.
6. Continue close collaboration with Corporate Security to ensure that planned objectives are prioritized and desired results are purposely implemented.

2022 Key Deliverables

- Continue assessment of system(s) and/or services that could potentially be outsourced or moved into a secure cloud hosted environment. The ERO Enterprise recognizes that this alternative must be considered for projected collaboration solutions across the ERO.
- Perform necessary software and hardware upgrades including, but not limited to, the upgrade of various workstation and server applications, targeted server operating systems, and infrastructure equipment that has reached its end-of-life.
- Continue the enhancements in the development, integration, and expansion of databases and applications into a unified corporation-wide Information Management System.

- Continue enhancements of the internal and external website and related applications to further improve employee efficiency and customer experience.
- Continue supporting Data Warehousing and Analytics efforts that will support improved risk analysis and decision making for customers.
- Continue the advancement of data security and defense technologies to provide layered prevention/detection of the latest advanced cyber security threats. Efforts to advance the implementation of Data Loss Prevention and Network Traffic Analysis will continue within ReliabilityFirst environment.
- Continue refinement of security awareness program by providing training documents, questionnaires, simulated exercises, assessment campaigns, and/or seminars on existing workplace vulnerabilities.
- Continue participation in E-ISAC CHIRP (Cyber Hygiene and Internet Risk Program) and CRISP (Cybersecurity Risk Information Sharing Program) initiatives to obtain additional external vulnerability assessment and threat information.
- Continue supporting ERO initiatives of developing, testing, and deploying ERO Enterprise solutions. Continue to look for opportunities to implement the common processes and/or solutions across the ERO Enterprise to achieve shared cost savings and efficiencies.

Resource Requirements

- **Personnel**

There are no planned changes in FTEs for 2022.

- **Contractors and Consultants**

Contractor and consultant support is budgeted for 2022 as needed for network maintenance projects, security simulation activities, enhancing data management systems, and network and audio/visual upgrades.

Organization Development & Human Resources

Program Scope and Functional Description

ReliabilityFirst realizes that talented, experienced employees are its greatest assets, and that finding, nurturing, developing, and retaining that talent is one of its most important tasks. The Organizational Development & Human Resources (ODHR) program centers on ReliabilityFirst's greatest resources, the staff and the organization's culture. The ODHR department is responsible for the attraction and retention of a diverse and talented workforce, employee engagement, creating a work environment of inclusion, employee development through performance management and individual, departmental and organizational training, corporate policy and procedure development and adherence measures, as well as compensation and benefits administration. The department is also responsible for strategic alignment of the organization's mission, values, strategic plan and organizational design, organizational analysis and succession planning, coaching and leadership development, and driving change management practices for improving organizational performance. The ODHR department oversees the organization's innovation project prioritization ("project framework"), corporate goals, corporate strategic plan and driving ReliabilityFirst's diversity and inclusion priorities. The ODHR staff must be vigilant in understanding and complying with federal and state employment laws covering seven states and the respective reporting requirements for each.

ReliabilityFirst will increase its staff to 89 individuals, equivalent to 88.60 FTEs. This includes one part-time position equaling (.60) FTE. The staff is comprised of qualified management, professional, and technical employees with the expertise necessary to serve its stakeholders and to support the ERO by properly carrying out the organization's delegated functions.

2022 Key Assumptions

The Organizational Development & Human Resources Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy.

There are no additional assumptions unique to the ReliabilityFirst Organizational Development & Human Resources Program.

2022 Key Deliverables

- Recruit and retain highly skilled employees.
- Implement new recruiting strategies to identify diverse candidates
- Develop and deploy diversity and inclusion training, series, regional and ERO resource groups to foster a culture of inclusion.
- Assess workforce model against organizational needs and changing competitive market
- Sustain competitiveness via the use of annual third party salary and market analyses.
- Provide staff training and education:
 - Train and educate staff on relevant technical topics, including emerging issues and technologies (e.g., virtualization, smart grid technologies).

- Train and educate staff on the existing and new competencies required to perform their roles and responsibilities (e.g., identify and assess risks, perform internal controls assessments and evaluations).
- Leverage competency models to more accurately identify training needs and update individual development plans.
- Explore, develop, and provide training on tools to further enhance staff efficiency and effectiveness.
- Review and manage employee benefits.
- Review succession plans and forecast for future talent needs.
- Apply organization development principles, methods and tools to formulate customized business solutions and frameworks which enhance organizational effectiveness.
- Provide continuous improvement in organizational design and alignment to corporate vision and strategic plan.
- Lead the development, communication and tracking of corporate goals and strategic plan.
- Cultivate a culture of innovation, collaboration and high performance
- Drive employee engagement and inclusion

Resource Requirements

- **Personnel**

An increase in one FTE for the Organizational Development & Human Resource Department is budgeted for 2022.

- **Contractors and Consultants**

Contractor and consultant support is budgeted in 2022 for third party recruiting and consulting services for skills software.

Finance and Accounting

Program Scope and Functional Description

The Finance and Accounting department is responsible for linking the strategy of ReliabilityFirst and its major departments to their annual operating budgets, managing accounting practices to ensure the accuracy of reported results, making meaningful financial information available to decision makers, and participating in various risk initiatives. The Finance and Accounting department is responsible for directing the complete cycle of the financial management activities of ReliabilityFirst and other initiatives, including:

- Processing the day to day activities such as travel and expense reporting, monthly financial reporting, accounts payables and receivables, and cash flow management;
- Leading the creation of the annual business plan and budget that adequately supports its delegated functions;
- Establishing and maintaining accounting policies, procedures, and internal controls, including anti-fraud initiatives, to guide the preparation of ReliabilityFirst's internal and external financial statements in accordance with Generally Accepted Accounting Principles;
- Overseeing the annual external audit of ReliabilityFirst's financials and all required filings;
- Supporting the ERO's funding/collection mechanism, annually collect and supply the ERO with a list of LSEs within the ReliabilityFirst footprint and their associated Net Energy for Load (NEL) data as mandated by FERC;
- Working with the ERO to develop common accounting practices throughout NERC and the Regions;
- Managing the retirement and corporate investment activities;
- Developing and implementing the necessary internal audit function;
- Supporting ReliabilityFirst in risk assessment activities from a financial perspective;
- Supporting the Enterprise Risk Management function; and
- Performing the Corporate Treasury function.

2022 Key Assumptions

The Finance and Accounting Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy.

There are no additional assumptions unique to the Finance and Accounting Program.

2022 Key Deliverables

- Work with all Regional Entities through the Electric Reliability Organization Finance Group (EROFG) to provide consistency in budget submittals to the ERO and to FERC.

- Provide all ReliabilityFirst program areas, the Board of Directors, the ERO, and stakeholders with financial clarity and understanding of ReliabilityFirst's financial position.
- Direct the overall financial plans and accounting practices of the organization; oversee treasury, accounting, budget, payroll, tax, audit activities, and financial and accounting internal controls and standards.
- Prepare and provide NERC the annual Regional Entity true-up filing, and the quarterly statements of activity.
- In an effort to continuously improve the entire accounting and budgeting process, implement actions to monitor operating expenses at a more granular level with the management staff.
- Provide advice from the financial perspective on contracts into which the organization may enter.
- Support risk assessment activities.
- Perform financial related internal control reviews and internal audit reviews.

Resource Requirements

- **Personnel**

An increase of .25 FTEs is budgeted in 2022. The purpose of this increase is to convert a part-time position into a full-time position.

- **Contractors and Consultants**

No contractor or consultant support is budgeted in 2022.

Section B: Supplemental Financial Information

Table B-1: Working Capital and Operating Reserve Analysis

Working Capital and Operating Reserve Analysis 2021-2022				
STATUTORY				
	Total	Working Capital and Working Capital Reserve	Unreleased Penalties	Operating Reserve
Beginning Working Capital, December 31, 2020 Per Audit	10,957,680			
Less: Adjustment for Future Long-Term Liabilities	(506,627)			
Beginning Reserve Balances, January 1, 2021	10,451,053	2,996,122	6,454,931	1,000,000
Penalty Funds Released from Restriction January 1, 2021	0	4,540,000	(4,540,000)	
Plus: Penalty Sanctions Received January 1 - June 30, 2021	1,573,750	0	1,573,750	0
Plus: 2021 ReliabilityFirst Funding (from LSEs or designees)	22,764,995	22,764,995	0	0
Plus: 2021 Other funding sources	50,000	50,000	0	0
Less: 2021 Projected expenses & capital expenditures	(24,058,091)	(24,058,091)	0	0
Other Adjustments to Reserves ¹	(158,074)	(158,074)	0	0
Projected Reserves, December 31, 2021	10,623,633	6,134,952	3,488,681 ²	1,000,000
Targeted Reserves, December 31, 2022 ³	7,743,577	6,743,577	0	1,000,000
Less: Projected Reserves, December 31, 2021	(10,623,633)	(6,134,952)	(3,488,681)	(1,000,000)
Total Adjustments to Reserves	(2,880,056)	608,625	(3,488,681)	0
2022 Expenses and Capital Expenditures	26,219,927			
Less: Released Penalties ²	(3,488,681)			
Less: Other Funding Sources	(50,000)			
Adjustment to Achieve Working Capital Reserve Balance	608,625			
Other Adjustments to Reserve ¹	158,074			
2022 ReliabilityFirst Assessment	23,447,945			

¹ Represents transactions recorded only on the Statement of Financial Position (balance sheet) that do not impact the Statement of Activities (income statement), including true-up of current versus non-current deferred rent obligation.

² Represents penalty sanctions collected from July 1, 2020 to June 30, 2021.

³ The Operating and Working Capital Reserves were approved by the ReliabilityFirst Board of Directors on March 18, 2021.

Explanation of the Working Capital Reserve

Historically, the working capital reserve has consisted of the amount necessary to satisfy projected cash flow needs for daily operations. In an effort to manage assessments more effectively over a three to five year period, the working capital reserve was initially increased in amount such that additional funds were available to achieve stabilization of future assessments. For 2022, the working capital reserve is being increased by \$0.6M to meet the Board-approved target reserve of approximately \$6.7M at December 31, 2022. The Targeted Working Capital balance of \$6.7M will be used to stabilize assessments in future years.

Explanation of the Operating Reserve

The amount of the operating reserve is determined and recommended for approval by the Board of Directors during the annual budget process. On March 18, 2021, the ReliabilityFirst Board approved a \$1,000,000 operating reserve, which is consistent with ReliabilityFirst policy, is the same amount budgeted in the 2021 Business Plan and Budget, and is believed to be appropriate for any unbudgeted and unexpected expenditures of the organization.

Table B-2: Penalty Sanctions Received

Dates Received	Amount Received
Collected July 1, 2020 to December 31, 2020	1,914,931
Collected January 1, 2021 to June 30, 2021	1,573,750
Total	3,488,681

Allocation Method

Penalty monies received have been allocated based upon the number of FTEs to the following direct programs to reduce assessments:

- Reliability and Risk Analysis;
- Compliance Monitoring and Enforcement;
- Reliability Assessments and Performance Analysis;
- Training, Education, Outreach, and Operator Certification; and
- Situational Awareness.

Table B-3: Supplemental Funding

Outside Funding Breakdown By Program (excluding ReliabilityFirst Assessments & Penalty Sanctions)	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget
Interest Income	\$ 50,000	\$ 50,000	\$ 50,000	-
Total Outside Funding	\$ 50,000	\$ 50,000	\$ 50,000	-

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- No significant variances requiring explanation.

Table B-4: Personnel Expenses

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Salaries					
Salaries	\$ 15,312,641	\$ 15,363,124	\$ 16,209,863	\$ 897,222	5.9%
Vacation Expense	59,688	59,688	64,382	4,694	7.9%
Total Salaries	\$ 15,372,329	\$ 15,422,812	\$ 16,274,245	\$ 901,916	5.9%
Total Payroll Taxes	\$ 934,645	\$ 945,687	\$ 992,282	\$ 57,637	6.2%
Benefits					
Workers Compensation	\$ 14,000	\$ 14,000	\$ 17,000	\$ 3,000	21.4%
Medical Insurance	1,865,755	1,689,920	1,907,912	42,157	2.3%
Life-LTD Insurance	132,925	131,592	140,244	7,319	5.5%
Training & Education	339,250	339,250	347,650	8,400	2.5%
Relocation	-	-	-	-	-
Total Benefits	\$ 2,351,930	\$ 2,174,762	\$ 2,412,806	\$ 60,876	2.6%
Retirement					
Discretionary 401k Contribution	\$ 1,489,744	\$ 1,498,388	\$ 1,581,739	\$ 91,995	6.2%
Savings Plan	873,543	910,274	924,016	50,473	5.8%
Pension & Savings Admin	130,500	175,384	96,350	(34,150)	-26.2%
Total Retirement	\$ 2,493,787	\$ 2,584,046	\$ 2,602,105	\$ 108,318	4.3%
Total Personnel Costs	\$ 21,152,691	\$ 21,127,307	\$ 22,281,438	\$ 1,128,747	5.3%
FTEs	84.35	84.35	88.60	4.25	5.0%
Cost per FTE					
Salaries	\$ 182,245	\$ 182,843	\$ 183,682	1,438	0.8%
Payroll Taxes	11,081	11,211	11,200	119	1.1%
Benefits	27,883	25,783	27,233	(650)	-2.3%
Retirement	29,565	30,635	29,369	(196)	-0.7%
Total Cost per FTE	\$ 250,773	\$ 250,472	\$ 251,483	\$ 711	0.3%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The overall increase in **Personnel Expenses** is mainly due to the addition of 4.25 new FTEs, a 3% general wage increase, and promotions.
- The decrease in **Pension & Savings Admin** is due to the decrease in administrative costs relating to the management of the corporation's retirement plans.

Table B-5: Meeting Expenses

Meeting Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	-
Reliability and Risk	161,600	40,200	161,980	380	0.2%
Compliance Monitoring and Enforcement	235,825	58,991	235,825	-	0.0%
Reliability Assessment and Performance Analysis	103,000	27,247	103,250	250	0.2%
Training and Education	255,600	83,450	225,230	(30,370)	-11.9%
Situation Awareness and Infrastructure Security	51,500	13,200	50,500	(1,000)	-1.9%
Administrative Services	173,110	63,857	203,850	30,740	17.8%
Total Meeting Expenses	\$ 980,635	\$ 286,945	\$ 980,635	\$ -	0.0%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The decrease in **Training and Education** is due to the decreased costs associated with the Reliability and CIP Workshops and technical workshops.
- The increase in **Administrative Services** is due to a plan to have more in person Board Meeting in 2022 compared to 2021.

Table B-6: Consultants and Contractors

Consultants & Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Reliability and Risk	10,000	10,000	10,000	-	0.0%
Compliance Monitoring and Enforcement	70,000	70,000	10,000	(60,000)	-85.7%
Reliability Assessment and Performance Analysis	116,624	116,624	130,624	14,000	12.0%
Training and Education	50,000	50,000	80,000	30,000	60.0%
Situation Awareness and Infrastructure Security	10,000	10,000	20,000	10,000	100.0%
Administrative Services	67,954	67,954	198,250	130,296	191.7%
Consultants & Contracts Total	\$ 324,578	\$ 324,578	\$ 448,874	\$ 124,296	38.3%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The decrease in **Compliance Monitoring and Enforcement** is due to the removal of funds used to support the compliance monitoring activities as a result of having adequate resources in house.
- The increase in **Reliability Assessment and Performance Analysis** is due to the increased costs associated with the steady state and dynamic base case models and power flow analysis assessments.
- The increases in **Training and Education** and **Situational Awareness** are due to the continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.
- The increase in **Administrative Services** is mainly due to network maintenance projects, security simulation activities, enhancing data management systems, and network and Audio/Visual upgrades.

Table B-7: Office Rent

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Office Rent	\$ 512,532	\$ 445,028	\$ 467,532	\$ (45,000)	-8.8%
Data Center Rent	70,560	70,560	70,560	-	0.0%
Utilities	45,000	49,268	60,000	15,000	33.3%
Total Office Rent	\$ 628,092	\$ 564,856	\$ 598,092	\$ (30,000)	-4.8%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The decrease in **Office Rent** is due to budgeted office space lease costs in 2021 that were eliminated in 2022.
- The increase in **Utilities** is due to higher monthly electric and operating expense charges.

Table B-8: Office Costs

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Telephone	\$ 95,664	\$ 95,664	\$ 92,222	\$ (3,442)	-3.6%
Internet	43,572	43,572	41,586	(1,986)	-4.6%
Office Supplies	19,340	19,340	19,600	260	1.3%
Computer Supplies and Maintenance	733,403	733,403	900,606	167,203	22.8%
Publications & Subscriptions	26,384	26,384	19,585	(6,799)	-25.8%
Dues	25,083	25,083	22,309	(2,774)	-11.1%
Postage	1,300	1,300	1,300	-	0.0%
Express Shipping	300	300	500	200	66.7%
Copying	3,000	3,000	3,000	-	0.0%
Reports	-	-	-	-	-
Stationary Forms	400	400	850	450	112.5%
Equipment Repair/Service Contracts	8,330	8,330	8,830	500	6.0%
Merchant Card Fees	-	-	-	-	-
Total Office Costs	\$ 956,776	\$ 956,776	\$ 1,110,388	\$ 153,612	16.1%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The increase in **Computer Supplies and Maintenance** is due to the purchase of new corporate laptops along with the purchase of a new threat intelligence tool.

Table B-9: Professional Services

Professional Services	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Independent Trustee Fees	\$ 314,750	\$ 351,917	\$ 449,000	\$ 134,250	42.7%
Accounting & Auditing Fees	65,385	75,057	72,665	7,280	11.1%
Outside Legal	10,000	15,000	15,000	5,000	50.0%
Insurance Commercial	91,200	94,270	95,100	3,900	4.3%
Total Services	\$ 481,335	\$ 536,244	\$ 631,765	\$ 150,430	31.3%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The increase in **Independent Director Fees** is due to the increase in the annual retainer fees and the addition of one independent director.

Table B-10: Miscellaneous

Miscellaneous Expense	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Miscellaneous	\$ 43,885	\$ 43,885	\$ 48,735	\$ 4,850	11.1%
Total Miscellaneous Expense	\$ 43,885	\$ 43,885	\$ 48,735	\$ 4,850	11.1%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- No significant variances requiring explanation

Table B-11: Non-Operating Expenses

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment	-	-	-	-	-
Office Relocation	-	-	-	-	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- No significant variances requiring explanation.

Table B-12: Fixed Assets

Fixed Assets	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Computer Hardware	\$ 175,000	\$ 175,000	\$ 90,000	\$ (85,000)	-48.6%
Computer Software	42,500	42,500	30,000	(12,500)	-29.4%
Furniture & Fixtures	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Total Fixed Assets	\$ 217,500	\$ 217,500	\$ 120,000	\$ (97,500)	-44.8%

Explanation of Significant Variances – 2021 Budget versus 2022 Budget

- The decrease in Fixed Assets is due to changes in projects planned in 2021 compared to 2022.

Table B-13: 2023 and 2024 Projections

Statement of Activities 2023 and 2024 Projections							
	2022 Budget	2023 Projection	\$ Change 22 v 23	% Change 22 v 23	2024 Projection	\$ Change 23 v 24	% Change 23 v 24
Funding							
ERO Funding							
ERO Assessments	\$ 23,447,945	\$ 24,620,343	\$ 1,172,397	5.0%	\$ 25,580,536	\$ 960,193	3.9%
Penalty Sanctions	1,914,931	1,000,000	-914,931	-48%	1,000,000	-	0.0%
Total ERO Funding	\$ 25,362,877	\$ 25,620,343	\$ 257,466	1.0%	\$ 26,580,536	-	-
Membership Dues	-	-	-	-	-	-	-
Interest and Investment Income	50,000	100,000	50,000	100.0%	100,000	-	0.0%
Miscellaneous Income	-	-	-	-	-	-	-
Total Funding (A)	\$ 25,412,877	\$ 25,720,343	\$ 307,466	1.2%	\$ 26,680,536	\$ -	0.0%
Expenses							
Personnel Expenses							
Salaries	\$ 16,274,245	\$ 16,917,154	\$ 642,909	4.0%	\$ 17,421,505	\$ 504,350	3.0%
Payroll Taxes	992,282	1,017,248	24,966	2.5%	1,030,562	13,314	1.3%
Benefits	2,412,806	2,616,190	203,384	8.4%	2,850,086	233,896	8.9%
Retirement Costs	2,602,105	2,692,118	90,013	3.5%	2,761,032	68,914	2.6%
Total Personnel Expenses	\$ 22,281,438	\$ 23,242,710	\$ 961,272	4.3%	\$ 24,063,185	\$ 820,474	3.5%
Meeting Expenses							
Meetings & Conference Calls	\$ 379,635	\$ 387,228	\$ 7,593	2.0%	\$ 394,972	\$ 7,745	2.0%
Travel	601,000	619,030	18,030	3.0%	637,601	18,571	3.0%
Total Meeting Expenses	\$ 980,635	\$ 1,006,258	\$ 25,623	2.6%	\$ 1,032,573	\$ 26,315	2.6%
Operating Expenses, excluding Depreciation							
Consultants & Contracts	\$ 448,874	\$ 528,363	\$ 79,489	17.7%	\$ 608,646	\$ 80,284	15.2%
Office Rent	598,092	610,054	11,962	2.0%	622,255	12,201	2.0%
Office Costs	1,110,388	1,215,907	105,519	9.5%	1,326,703	110,795	9.1%
Professional Services	631,765	644,400	12,635	2.0%	657,288	12,888	2.0%
Miscellaneous	48,735	49,710	975	2.0%	50,207	497	1.0%
Total Operating Expenses, excluding Depreciation	2,837,854	3,048,434	210,580	7.4%	3,265,099	216,665	7.1%
Total Direct Expenses	\$ 26,099,927	\$ 27,297,402	\$ 1,197,475	4.6%	\$ 28,360,857	\$ 1,063,455	3.9%
Indirect Expenses	-	-	-	-	-	-	-
Other Non-Operating Expenses	-	-	-	-	-	-	-
Total Expenses (B)	\$ 26,099,927	\$ 27,297,402	\$ 1,197,475	4.6%	\$ 28,360,857	\$ 1,063,455	3.9%
Change in Net Assets (= A - B)	\$ (687,050)	\$ (1,577,060)	\$ (890,009)	129.5%	\$ (1,680,321)	\$ (1,063,455)	67.4%
Fixed Asset Additions, excluding Right of Use Assets (C)	120,000	120,000	-	0.0%	\$ 120,000	-	0.0%
Allocation of Fixed Assets	-	-	-	-	-	-	-
Inc/(Dec) in Fixed Assets	\$ 120,000	\$ 120,000	\$ -	0.0%	\$ 120,000	\$ -	0.0%
Total Budget (= B+ C)	\$ 26,219,927	\$ 27,417,402	\$ 1,197,475	4.6%	\$ 28,480,857	\$ 1,063,455	3.9%
Change in Working Capital (= A - B - C)	\$ (807,050)	\$ (1,697,060)	\$ (890,009)	110.3%	\$ (1,800,321)	\$ (1,063,455)	62.7%
FTEs	88.6	90.6	2.0	2.3%	90.6	-	0.0%

Explanation of 2023 and 2024 Budget Projections

The following is a breakdown of the projected budget ranges for 2023.

2023 Lower Range: 4.6%

- Personnel Expense: 4.3%
 - Wages Increase: 3%
 - Medical/Dental Premiums: 10%/5%
 - Hire 2 additional FTEs
- Meeting Expense: 2%
- Travel Expense: 3%
- Operating Expense: 7.4%
 - CMEP Data Migration: \$35,000
 - Penetration Testing: \$40,000
 - Capability Management Software used for building models and measuring maturity for various business processes: \$50,000

2023 Higher Range to Address At-Risk Initiatives: 7.4%

- Personnel Expense: 6.9%
 - Wages Increase: 3%
 - Medical/Dental Premiums: 10%/5%
 - Hire 5 additional FTEs
- Meeting Expense: 2%
- Travel Expense: 3%
- Operating Expense: 7.4%
 - CMEP Data Migration: \$35,000
 - Penetration Testing: \$40,000
 - Capability Management Software used for building models and measuring maturity for various business processes: \$50,000
- Fixed Assets
 - \$165,000 for Data Analytics Software/Hardware

Notes:

1. 2023 projections are based on the 2022 budget.

The following is a breakdown of the projected budget ranges for 2024.

2024 Lower Range: 3.9%

- Personnel Expense: 3.5%
 - Wages Increase: 3%
 - Medical/Dental/Vision Premiums: 10%/5%/5%
- Meeting Expense: 2%
- Travel Expense: 3%
- Operating Expense: 7.1%
 - Program Improvements

2024 Higher Range to Address At-Risk Initiatives: 8.8%

- Personnel Expense: 8.7%
 - Wages Increase: 3%
 - Medical/Dental Premiums: 10%/5%/5%
 - Includes the 5 FTEs from the 2023 projection
 - Hire 3 additional FTEs
- Meeting Expense: 2%
- Travel Expense: 3%
- Operating Expense: 7.1%
 - Program Improvements
- Fixed Assets
 - \$165,000 for Data Analytics Software/Hardware

Notes:

1. 2024 projections are based on the 2023 lower range.

Section C: Non-Statutory Activities

ReliabilityFirst performed only those functions delegated to it by the ERO in 2021 and the organization does not intend to perform any functions outside its ERO delegated activities in 2022, therefore Section C is not applicable.

**Section D: Additional Consolidated Financial
Statements**

2022 Consolidated Statement of Activities by Program

	Total	Statutory Total	Reliability Standards	Reliability & Risk Analysis	Compliance Monitoring and Enforcement	Reliability Assessment and Performance Analysis (Section 800)	Training and Education	Situation Awareness	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance
Funding													
ReliabilityFirst Funding													
ReliabilityFirst Assessments	23,447,945	23,447,945	-	6,704,655	10,276,500	2,547,315	1,474,865	1,677,911	766,700	-	-	-	-
Penalty Sanctions	3,488,681	3,488,681	-	1,032,154	1,703,054	340,611	154,823	258,039	-	-	-	-	-
Total ReliabilityFirst Funding	26,936,627	26,936,627	-	7,736,809	11,979,554	2,887,926	1,629,688	1,935,949	766,700	-	-	-	-
Membership Dues	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest and Investment Income	50,000	50,000	-	14,793	24,408	4,882	2,219	3,698	-	-	-	-	-
Miscellaneous Income	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Funding	26,986,627	26,986,627	-	7,751,602	12,003,963	2,892,808	1,631,907	1,939,647	766,700	-	-	-	-
Expenses													
Personnel Expenses													
Salaries	16,274,245	16,274,245	-	3,706,649	5,778,419	1,399,167	697,612	873,055	1,257,010	698,567	883,013	599,008	381,745
Payroll Taxes	992,282	992,282	-	228,357	371,629	82,229	37,514	54,875	52,567	36,511	64,059	36,773	27,768
Benefits	2,412,806	2,412,806	-	488,678	835,456	145,186	121,026	161,887	113,583	100,657	172,089	220,281	53,963
Retirement Costs	2,602,105	2,602,105	-	574,211	884,951	221,857	105,848	138,102	180,459	110,331	139,971	89,412	156,963
Total Personnel Expenses	22,281,438	22,281,438	-	4,997,895	7,870,455	1,848,439	962,000	1,227,919	1,603,619	946,066	1,259,132	945,474	620,439
Meeting Expenses													
Meetings & Conference Calls	379,635	379,635	-	9,980	9,825	8,250	207,230	500	68,500	1,000	23,400	50,600	350
Travel	601,000	601,000	-	152,000	226,000	95,000	18,000	50,000	20,000	15,000	11,000	8,000	6,000
Total Meeting Expenses	980,635	980,635	-	161,980	235,825	103,250	225,230	50,500	88,500	16,000	34,400	58,600	6,350
Operating Expenses													
Consultants & Contracts	448,874	448,874	-	10,000	10,000	130,624	80,000	20,000	25,000	3,000	145,000	25,250	-
Office Rent	598,092	598,092	-	-	-	-	-	-	527,532	-	70,560	-	-
Office Costs	1,110,388	1,110,388	-	285,234	91,069	52,652	19,703	67,105	75,643	22,369	426,804	20,009	49,800
Professional Services	631,765	631,765	-	-	-	-	-	-	464,000	-	-	28,440	139,325
Miscellaneous	48,735	48,735	-	-	7,400	-	500	-	14,325	-	3,510	23,000	-
Total Operating Expenses	2,837,854	2,837,854	-	295,234	108,469	183,276	100,203	87,105	1,106,500	25,369	645,874	96,699	189,125
Total Direct Expenses	26,099,927	26,099,927	-	5,455,109	8,214,749	2,134,965	1,287,433	1,365,524	2,798,619	987,435	1,939,406	1,100,773	815,914
Indirect Expenses	0	0	-	2,260,990	3,730,634	746,127	339,149	565,248	(2,798,619)	(987,435)	(1,939,406)	(1,100,773)	(815,914)
Other Non-Operating Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	26,099,927	26,099,927	-	7,716,099	11,945,383	2,881,092	1,626,582	1,930,772	-	-	-	-	-
Change in Assets	886,700	886,700	-	35,503	58,580	11,716	5,325	8,876	766,700	-	-	-	-
Fixed Assets													
Computer & Software CapEx	120,000	120,000	-	-	-	-	-	-	-	-	120,000	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Fixed Assets	120,000	120,000	-	-	-	-	-	-	-	-	120,000	-	-
Allocation of Fixed Assets	-	-	-	35,503	58,580	11,716	5,325	8,876	-	-	(120,000)	-	-
Inc/(Dec) Fixed Assets	120,000	120,000	-	35,503	58,580	11,716	5,325	8,876	-	-	-	-	-
Total Budget	26,219,927	26,219,927	-	7,751,602	12,003,963	2,892,808	1,631,907	1,939,647	-	-	-	-	-
Change in Working Capital	766,700	766,700	-	-	-	-	-	-	766,700	-	-	-	-
FTEs	88.6	88.6	-	20.0	33.0	6.6	3.0	5.0	4.0	3.0	7.0	4.0	3.0

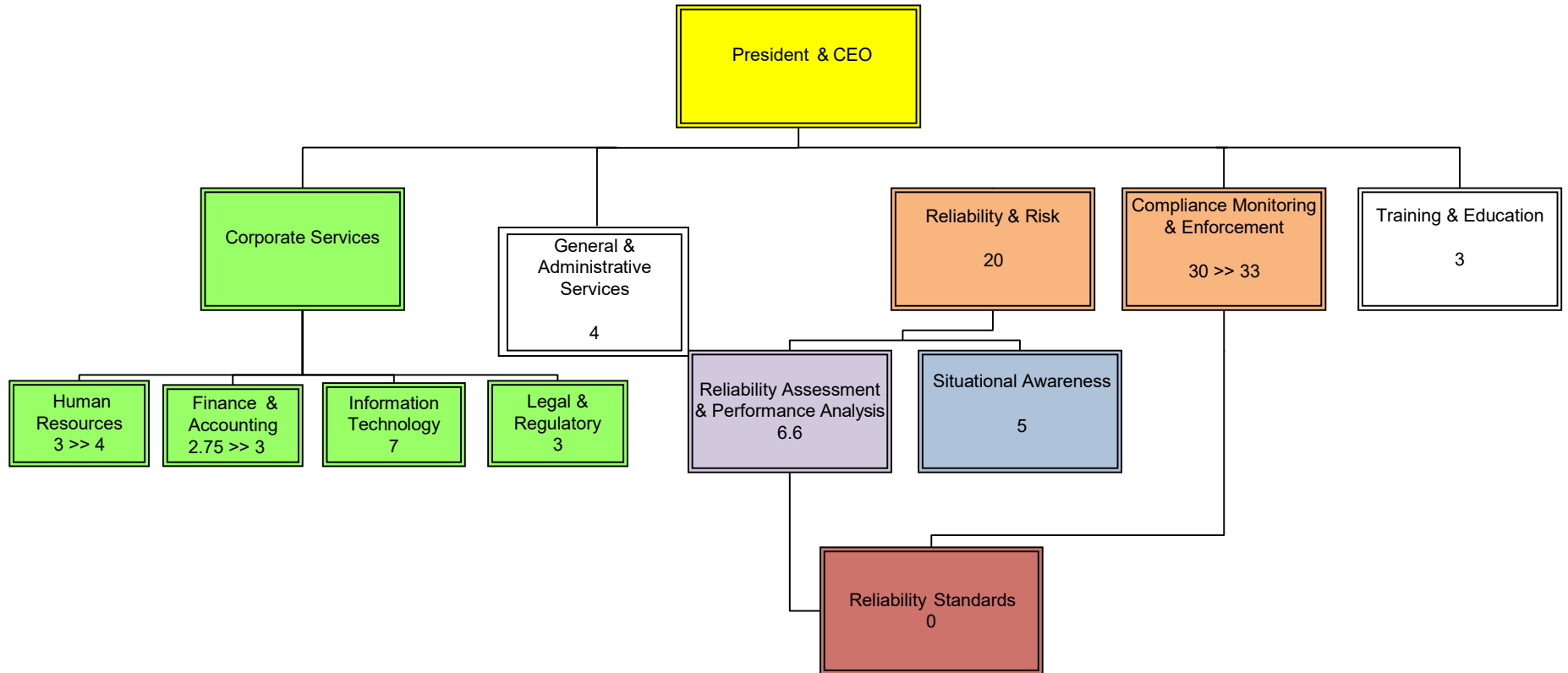
Statement of Financial Position

2020 Statement of Financial Position

STATUTORY and NON-STATUTORY

	(Per Audit) 31-Dec-20
ASSETS	
Current Assets	
Cash	2,459,881
Cash - Regulatory Designated	4,540,000
Investments	6,583,286
Accounts receivable, net of allowance for uncollectible accounts	147,380
Prepaid expenses	395,480
Total Current Assets	14,126,027
Noncurrent Assets	
Cash - Regulatory Designated (net of current portion)	1,914,931
Deferred Compensation Plan Assets	451,899
Total Noncurrent Assets	2,366,830
Fixed Assets	
Furniture and Equipment	410,579
Leasehold Improvements	2,086,939
Computer Hardware and Software	3,411,752
Less Accumulated Depreciation	(4,288,597)
Total Fixed Assets	1,620,673
Total Assets	18,113,530
LIABILITIES AND NET ASSETS	
Current Liabilities	
Accounts payable	50,559
Accrued expenses	5,032,719
Deferred Rent	211,438
Total Current Liabilities	5,294,716
Long Term Liabilities	
Accrued expenses	-
Deferred Revenue	350,000
Deferred Rent	1,269,977
Deferred Compensation	451,899
Total Long Term Liabilities	2,071,876
Total Liabilities	7,366,592
Net Assets	
Without Donor Restrictions	
Undesignated	1,763,858
Operating Reserve Fund	1,000,000
Working Capital Reserve Fund	1,528,149
Regulatory Designated Funds	6,454,931
Total Net Asset	10,746,938
Total Liabilities and Net Assets	18,113,530

Appendix A: 2021 – 2022 Organization Chart



DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 6

SERC RELIABILITY CORPORATION

PROPOSED 2022 BUSINESS PLAN AND BUDGET



2022 Business Plan and Budget

**Approved By Board of Directors
June 24, 2021**

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Introduction

The following table summarizes the 2022 SERC Reliability Corporation (SERC) budget.

TOTAL RESOURCES (in whole dollars)				
	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs	104.0			
Non-statutory FTEs	-			
Total FTEs	104.0			
Statutory Expenses	\$ 26,444,260			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 26,444,260			
Statutory Incr(Decr) in Fixed Assets	\$ 264,000			
Non-Statutory Incr(Decr) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ 264,000			
Statutory Working Capital Requirement	\$ (513,326)			
Non-Statutory Working Capital Requirement	\$ -			
Total Working Capital Requirement	\$ (513,326)			
Total Statutory Funding Requirement	\$ 26,194,934			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 26,194,934			
Statutory Assessments	\$ 24,798,934	\$ 24,798,934	n/a	n/a
Non-Statutory Fees	\$ -	n/a	n/a	n/a
NEL	1,290,440,174	1,290,440,174	n/a	n/a
NEL%	100%	100%	n/a	n/a

Table 1. SERC Budget for 2022

Organizational Overview

SERC is a nonprofit corporation whose mission is to assure effective and efficient reduction of risks to the reliability and security of the bulk power system (BPS) in all or portions of 16 central and southeastern states. To achieve this mission, SERC maintains a diverse team of experts across numerous disciplines to address the complex, evolving, and dynamic challenges facing the grid. The SERC team also partners with the best and brightest individuals from both the power industry and the federal government to understand and address the challenges facing the grid. These key partnerships make our work more informed, pragmatic, responsive, and impactful.

SERC's mission is rooted in a risk-based approach that aligns with and supports the mission of the North American Electric Reliability Corporation (NERC) and the broader Electric Reliability Organization (ERO) Enterprise. SERC has developed four cultural attributes that help guide its conduct and three key strategic focus areas to help ensure it is best positioned to achieve its mission and further support the ERO Enterprise Long-Term Strategy Focus Areas and the ERO Enterprise Operating Plan.

- At SERC, every individual is a **LEADER** across every level of our organization. We are trustworthy, principled, inclusive, and respectful. We strive to create value that reduces risk to reliability and security. Leading means having a positive vision and actively building support for executing it.
- At SERC, we are **COLLABORATIVE** both internally and externally. We partner and engage in focused communication within and across our organization, with our stakeholders, the ERO Enterprise, and the Federal Energy Regulatory Commission (FERC) to drive meaningful action. We leverage our diverse experiences, skills, knowledge, and tools to ensure the effective reductions of risk to reliability and security.
- At SERC, we strive to be **EXPERTS** that are sought after for our credibility, objectivity, and discipline. We understand our strengths and opportunities, and pursue continuous learning and improvement. We value intellectual curiosity, innovation, and creativity.
- At SERC, we take action to execute our risk based mission by demonstrating **PURPOSEFUL** proactive initiative, intentionality, and resourcefulness in anticipation of current and future challenges and opportunities. We strategically plan and pursue activities that deliver value with intended results.

VISION

A highly reliable and secure bulk power system

MISSION

To assure effective and efficient reduction of risks to the reliability and security of the bulk power system

CULTURAL ATTRIBUTES

- ❖ Leader
- ❖ Collaborative
- ❖ Expert
- ❖ Purposeful

2022 Strategic Focus Areas

SERC's Strategic Planning Process considered common themes throughout the industry, evaluated SERC's strengths and areas for improvement, and identified risk priorities to develop SERC's Strategic Focus Areas.

SERC's strategic focus is centered on three principles:

- SERC must be a **Credible and Trusted Expert** organization for its stakeholders, one that is truly risk-based. SERC strives for excellence in risk identification, risk mitigation, and risk communication.
- SERC must be a respected **Leader across the ERO Enterprise**, as well as in the eyes of FERC. This is accomplished through innovation, collaboration, and meaningful relationships.
- SERC must be a **Highly Desirable Place to Work**. SERC fosters a culture of trust, teamwork, and continuous improvement; and our work at every level is deeply tied to furthering our essential mission.



SERC will pursue the following key initiatives in 2022 to promote its focus areas:

- Strengthen the role of the Board Risk Committee with opportunities for oversight of critical corporate and Regional risk-based activities;
- Define and promote interaction with state regulatory agencies;
- Explore opportunities to expand influence of Situational Awareness and stakeholder technical committees, especially in the area of cybersecurity and other key regional risks identified in the annual SERC Regional Risk Report;
- Evaluate success of governance changes, and make necessary adjustments; and
- Promote continuous improvement by refining internal processes to leverage effectiveness and efficiencies of ERO initiatives.

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a high reliable and secure North American bulk power system (BPS). Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness, and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. The Regional Entities have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions are completed. Both NERC and the Regional Entities have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.

Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.



ERO Enterprise Strategic and Operational Planning

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the *ERO Enterprise Long-Term Strategy* as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee's (RISC's) currently identified BPS risks. This strategy, which was approved by the NERC Board of Trustees (Board) on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC's biennial ERO Reliability Risk Priorities Report;
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization's Business Plan and Budget may reference how activities support each of the strategic focus areas.

Since risks to reliability and security are fluid and can be impacted by recent events, NERC and each Regional Entity may also create annual work plan priorities that summarize the most critical goals and objectives for the year. In many cases, these work plan priorities are also used for individual, departmental, and company performance measurement.

Membership and Governance

The SERC Region presently covers an area of approximately 610,000 square miles. Electric systems in the SERC Region currently serve approximately 29% of the net energy for load (NEL) in North America, approximately 33% of the NEL in the United States, and 39% of the NEL in the Eastern Interconnection.

Membership in SERC is voluntary and free of charge. SERC member companies (Members) meet at least annually to elect Independent Directors and Sector Directors, and conduct other such business as may come before the meeting. Additionally, Members approve amendments to Bylaws as recommended by the SERC Board of Directors (Board) and advise the Board with respect to the development of annual budgets, business plans, and other matters pertinent to the purpose and operations of the organization.

SERC's governance structure allows for participation from a diverse mix of stakeholders while also ensuring the need for independent decision-making and balance. SERC is governed by a balanced, hybrid Board consisting of 18 Directors comprised of a combination of stakeholder representatives from SERC member companies (i.e., Sector Directors) and independent representatives (i.e., Independent Directors) that add independent balance, perspective, and expertise. This combination of stakeholder and Independent Directors allows the Board to focus on the most important and significant risks to reliability in the SERC footprint.

The Board currently has the following committees, which report directly to the Board:

- **Risk Committee:** Oversees the corporation's Enterprise Risk Management framework; provides oversight over management and the Technical Committees' assessments of external risks to the SERC Region; and periodically reports these risk oversight findings to the Board. This committee also provides oversight over critical corporate and Regional risk-based activities.
- **Human Resources and Compensation Committee (HRCC):** Advises the President, Board Officers, and the Board about organization and staffing needs, employee compensation, and other matters related to human resources.
- **Finance and Audit Committee (FAC):** Advises the President, Board Officers, and the Board about the organization's finances and internal controls.
- **Nominating and Governance Committee:** Identifies, vets, and recommends candidates for Board Officer and committee positions for approval by the Board. This committee is also responsible for reviewing and recommending any necessary changes to the organization's Bylaws and other governing policies and procedures.

Statutory Functional Scope

SERC performs the following statutory functions in furtherance of its mission and in accordance with its FERC approved Delegation Agreement with NERC:

- Analyzes events to identify lessons learned that will improve reliability;
- Promotes BPS reliability, adequacy, and security;
- Proposes and helps develop NERC Reliability Standards and Regional Reliability Standards;
- Monitors and enforces approved mandatory Reliability Standards;
- Registers and certifies responsible entities under the reliability compliance program;

-
- Assesses the past, present, and future risk profile of the BPS to ensure grid reliability, adequacy, and security; and
 - Provides training and education to registered entities, as it deems necessary, in support of its performance of delegated functions.

SERC performs only functions called for in Section 215 of the *Federal Power Act* that have been delegated from NERC to SERC.

2022 Overview of Budget

SERC proposes to increase its operating budget in 2022 from \$25,829,079 to \$26,708,260, an increase of \$879,181 or 3.4%.

SERC's proposed 2022 assessment of \$24,798,934 represents an increase of 5.5%, or \$1,285,048 from the 2021 assessment.

SERC believes that in 2022, it will continue to realize material efficiencies that will allow the Region to effectively perform its mission and deliver value by reducing risks to the reliability and security of the grid. SERC will also continue to perform its essential mission at a cost that balances the longstanding tradition of affordable and reliable electricity across SERC's footprint.

NERC Rules of Procedure (ROP) §1107.2 specifies that Penalty monies received during the period July 1 through the following June 30, are to be used in the subsequent budget period to offset assessment billings. However, NERC ROP §1107.4 provides for exceptions or alternatives to this treatment if approved by NERC and by FERC, or any Applicable Governmental Authority. In June 2019, the SERC Board approved an amendment to SERC's Cash Reserves Policy. Included with this amendment was the creation of an Assessment Stabilization Reserve. This reserve was established to narrow the gap between annual percentage changes in SERC's budget and annual percentage changes in assessments that result from year-to-year variations in financial Penalties. SERC's proposed 2022 budget reflects the release of \$1,200,000 from the Assessment Stabilization Reserve as an offset to assessments.

The following targeted budget changes allow SERC to accomplish the specific objectives outlined in the *2022 Business Plan and Budget (BP&B)* (dollars are stated as an increase in the 2022 budget compared to the 2021 budget). The most significant changes to the budget are in personnel, which includes the following two components:

Staffing changes proposed for 2022 – The targeted staffing level for 2022 is 104 Full-Time Equivalents (FTEs), which is a total increase of four FTEs compared to the 2021 budget. Three of these four positions are budget neutral to SERC. These additional personnel will help drive a stronger and more robust internal IT team.

Other shifts between program areas align resources with overall needs and address expected impacts of the ERO wide Align project, resulting in an overall increase of one FTE.

Cost increase for maintaining staff budgeted in 2022 – The net increase in Personnel Expenses of \$1,194,469 compared to 2021 reflects a Board approved merit increase and an increase in employee benefit costs. A 5% vacancy rate has been applied to all Personnel Expenses.

Other notable changes in the proposed budget from year-to-year include the following:

- **Meetings and Travel** – A combined decrease of \$102,293 reflects efficiencies realized in SERC's Compliance Monitoring audit process, which includes utilizing a hybrid of on-site and virtual monitoring personnel.
- **Consultants and Contracts** – SERC anticipates an overall decrease in consultants and contracts of \$386,192.

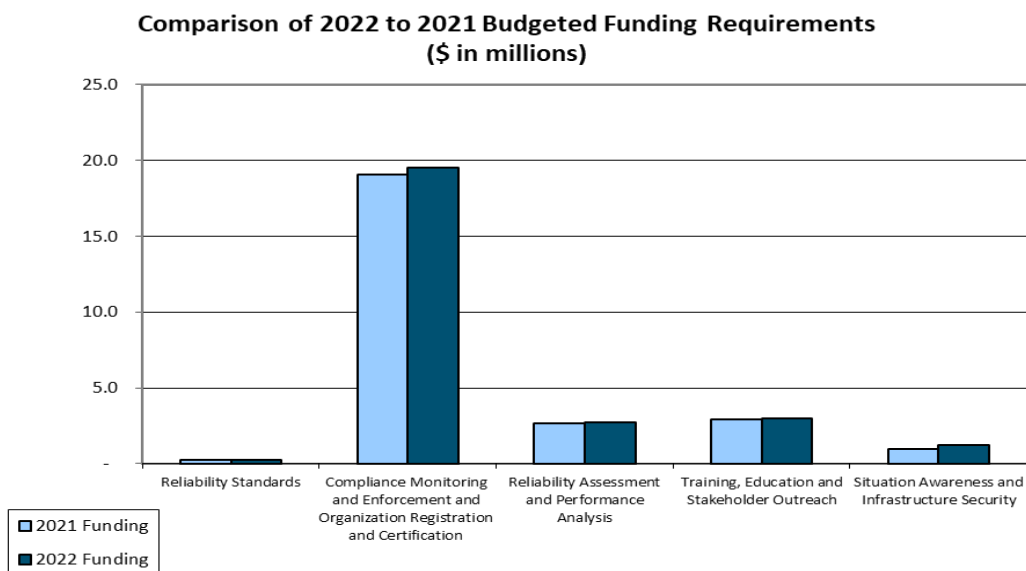
- **Office Costs** – An increase of \$102,370 is due primarily to planned software purchases to improve the IT security infrastructure.
- **Professional Services** – A decrease of \$10,040 is due to lower anticipated legal expenses based on historical spend.
- **Fixed Assets** – An overall increase of \$64,000 is due to cyber security enhancements and new corporate services software.

Summary of Budget by Program Area

The following table and figure summarize and illustrate the funding requirements for SERC's primary statutory program areas.

Program	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Reliability Standards	\$ 223,255	\$ 231,612	\$ 221,085	\$ (2,170)	(1.0%)
Compliance Monitoring and Enforcement; Organization Registration and Certification	19,064,908	18,972,520	19,534,883	469,975	2.5%
Reliability Assessment and Performance Analysis	2,651,802	2,624,344	2,735,869	84,067	3.2%
Training, Education and Stakeholder Outreach	2,901,036	2,811,116	2,988,657	87,621	3.0%
Situation Awareness and Infrastructure Security	988,077	1,189,486	1,227,766	239,689	24.3%
Total	\$ 25,829,078	\$ 25,829,078	\$ 26,708,260	\$ 879,182	3.4%
Working Capital Reserve	(930,193)	(1,017,693)	(513,326)	416,867	
Total Funding	24,898,885	24,811,385	26,194,934	1,296,049	5.2%

Table 2. Budgeted Funding by Program Area



This graphical representation does not include an allocation of working capital requirements among the program areas.

Figure 1. Budgeted Funding by Program Area Chart

FTE by Program Area

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

Total FTEs by Program Area	Budget 2021	Projection 2021	Budget 2022	Increase (Decrease)
STATUTORY				
Operational Programs				
Reliability Standards	0.50	0.50	0.50	0.00
Compliance Monitoring and Enforcement; Organization Registration and Certification	50.15	50.45	50.45	0.30
Reliability Assessment and Performance Analysis	6.30	6.30	6.30	0.00
Training, Education and Stakeholder Outreach	7.95	7.50	8.00	0.05
Situation Awareness and Infrastructure Security	2.50	3.00	3.00	0.50
Total FTEs Operational Programs	67.40	67.75	68.25	0.85
Corporate Services				
Technical Committees and Member Forums	3.90	3.90	3.90	0.00
General & Administrative	9.00	9.00	8.65	(0.35)
Legal and Regulatory	2.90	2.90	2.90	0.00
Analytics & Information Technology	10.80	10.45	14.30	3.50
Human Resources	3.00	3.00	3.00	0.00
Finance and Accounting	3.00	3.00	3.00	0.00
Total FTEs Corporate Services	32.60	32.25	35.75	3.15
Total FTEs	100.00	100.00	104.00	4.00

Table 3. Total FTEs by Program Area

2021 Budget and Projection and 2022 Budget Comparisons

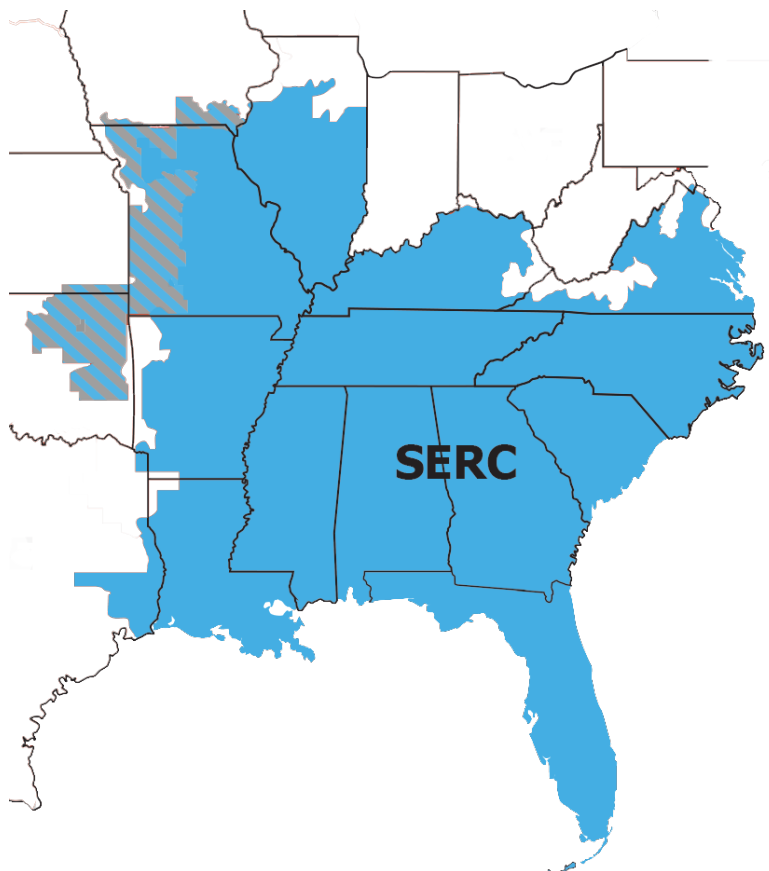
Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
STATUTORY					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Budget v 2021 Projection Over(Under)	Budget	2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 23,513,886	\$ 23,513,886	\$ -	\$ 24,798,934	\$ 1,285,048
Penalties Released*	1,180,000	1,180,000	-	1,200,000	20,000
Total Statutory Funding	\$ 24,693,886	\$ 24,693,886	\$ -	\$ 25,998,934	\$ 1,305,048
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	175,000	87,500	(87,500)	166,000	(9,000)
Interest	30,000	30,000	-	30,000	-
Total Funding (A)	\$ 24,898,886	\$ 24,811,386	\$ (87,500)	\$ 26,194,934	\$ 1,296,048
Expenses					
Personnel Expenses					
Salaries	\$ 15,157,961	\$ 15,418,809	\$ 260,848	\$ 16,239,814	\$ 1,081,853
Payroll Taxes	1,057,723	1,076,489	18,766	971,965	(85,758)
Benefits	1,920,040	1,843,802	(76,238)	1,981,828	61,788
Retirement Costs	1,924,856	1,958,019	33,163	2,061,442	136,586
Total Personnel Expenses	\$ 20,060,580	\$ 20,297,119	\$ 236,539	\$ 21,255,049	\$ 1,194,469
Meeting Expenses					
Meetings & Conference Calls	\$ 415,308	\$ 352,268	\$ (63,040)	\$ 443,307	\$ 27,999
Travel	985,632	649,510	(336,122)	855,340	(130,292)
Total Meeting Expenses	\$ 1,400,940	\$ 1,001,778	\$ (399,162)	\$ 1,298,647	\$ (102,293)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 1,764,136	\$ 1,739,436	\$ (24,700)	\$ 1,377,944	\$ (386,192)
Office Rent	823,200	823,200	-	840,067	16,867
Office Costs	1,068,823	1,005,422	(63,401)	1,171,193	102,370
Professional Services	511,400	532,560	21,160	501,360	(10,040)
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 4,167,559	\$ 4,100,618	\$ (66,941)	\$ 3,890,564	\$ (276,995)
Total Direct Expenses	\$ 25,629,079	\$ 25,399,515	\$ (229,564)	\$ 26,444,260	\$ 815,181
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 25,629,079	\$ 25,399,515	\$ (229,564)	\$ 26,444,260	\$ 815,181
Change in Assets	\$ (730,193)	\$ (588,129)	\$ 142,064	\$ (249,326)	\$ 480,867
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 200,000	\$ 429,564	\$ 229,564	\$ 264,000	\$ 64,000
TOTAL BUDGET (B+C)	\$ 25,829,079	\$ 25,829,079	\$ -	\$ 26,708,260	\$ 879,181
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (930,193)	\$ (1,017,693)	\$ (87,500)	\$ (513,326)	\$ 416,867
FTEs	100.0	100.0	-	104.0	4.0

* Penalties Released in the current year reflects the designated amount of funds released from the Assessment Stabilization Reserve (ASR) to offset U.S. assessments as approved by the SERC Board of Directors and FERC. Actual penalties invoiced in the current reporting year are shown as an increase in the ASR on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

Table 4. Budget and Projection Comparison, 2021 to 2022

Section A – Statutory Programs

2022 Business Plan and Budget



Section A – Statutory Programs

Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	0.50	0.50	-
Direct Expenses	\$ 135,884	\$ 132,157	\$ (3,727)
Indirect Expenses	\$ 85,887	\$ 86,994	\$ 1,107
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 1,484	\$ 1,934	\$ 450
Total Funding Requirement	\$ 223,255	\$ 221,085	\$ (2,170)

Table A-1. Reliability Standards Budget

Program Scope and Functional Description

SERC may develop Regional Reliability Standards to establish threshold requirements for assuring the planning and operation of the Bulk Electric System (BES). In accordance with the SERC Reliability Standards Development Procedure, SERC develops and maintains its Regional Reliability Standards to minimize the risks of cascading failures and avoid damage to major equipment. These Standards must be more stringent than a NERC Reliability Standard, or address a regional difference or a physical difference in the BES.

SERC may also develop regional criteria and guidelines. Regional criteria and guidelines are clear, timely, and effective in mitigating risks to good utility practices used to enhance the reliability of the BES, consider cost-effectiveness/impact, and may augment Reliability Standards. Regional criteria and guidelines are not Reliability Standards, and therefore are not enforceable. SERC develops its regional criteria and guidelines in accordance with the Organization and Procedures Manual for SERC Technical Committees.

2022 Key Assumptions

The 2022 key assumptions for the Reliability Standards program are as follows:

- SERC expects the overall volume of NERC Reliability Standard changes to remain at levels consistent with prior years, as the Standards are undergoing an efficiency review and many requirements are being retired. It may be a year or two before Standard changes reach a steady state.
- SERC resources will support the Standards development per the NERC Standards Process Manual.
- SERC anticipates that regional criteria and guideline development will continue as needed to support reliability and security.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC Reliability Standards program are as follows:

- Manage the SERC Technical Committee documents per the approved 2022 Review Work Plan;
- Support the ERO to develop, modify, and conduct periodic reviews of the Reliability Standards to ensure Standards are written clearly and properly structured for existing and emerging risks; and
- Provide information to SERC staff and stakeholders on upcoming Standard changes or implementation dates to ensure awareness and preparedness.

Resource Requirements**Personnel**

The number of FTEs assigned to the Reliability Standards program is consistent with 2021.

Reliability Standards Budget Detail

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
RELIABILITY STANDARDS					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 206,038	\$ 206,038	\$ -	\$ 207,642	\$ 1,604
Penalties Released	8,754	8,754	-	8,791	37
Total Statutory Funding	\$ 214,792	\$ 214,792	\$ -	\$ 216,433	\$ 1,641
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	200	-	(200)	183	(17)
Interest	223	221	(2)	220	(3)
Total Funding (A)	\$ 215,215	\$ 215,013	\$ (202)	\$ 216,836	\$ 1,621
Expenses					
Personnel Expenses					
Salaries	\$ 96,823	\$ 97,930	\$ 1,107	\$ 100,868	\$ 4,045
Payroll Taxes	6,778	6,855	77	6,052	(726)
Benefits	9,243	19,593	10,350	10,043	800
Retirement Costs	12,190	12,324	134	12,694	504
Total Personnel Expenses	\$ 125,034	\$ 136,702	\$ 11,668	\$ 129,657	\$ 4,623
Meeting Expenses					
Meetings & Conference Calls	\$ 1,110	\$ 1,110	\$ -	\$ -	\$ (1,110)
Travel	9,540	6,360	(3,180)	2,500	(7,040)
Total Meeting Expenses	\$ 10,650	\$ 7,470	\$ (3,180)	\$ 2,500	\$ (8,150)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	200	200	-	-	(200)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 200	\$ 200	\$ -	\$ -	\$ (200)
Total Direct Expenses	\$ 135,884	\$ 144,372	\$ 8,488	\$ 132,157	\$ (3,727)
Indirect Expenses	\$ 85,887	\$ 84,070	\$ (1,817)	\$ 86,994	\$ 1,107
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 221,771	\$ 228,442	\$ 6,671	\$ 219,151	\$ (2,620)
Change in Assets	\$ (6,556)	\$ (13,429)	\$ (6,873)	\$ (2,315)	\$ 4,241
Fixed Assets, excluding Right of Use Assets (C)	\$ 1,484	\$ 3,170	\$ 1,686	\$ 1,934	\$ 450
TOTAL BUDGET (B+C)	\$ 223,255	\$ 231,612	\$ 8,357	\$ 221,085	\$ (2,170)
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (8,040)	\$ (16,599)	\$ (8,559)	\$ (4,249)	\$ 3,791
FTEs	0.50	0.50	-	0.50	-

Table A-2. Reliability Standards Budget Detail

Compliance Monitoring and Enforcement; Organization Registration and Certification Program

Compliance Monitoring and Enforcement; Organization Registration and Certification Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	50.15	50.45	0.30
Direct Expenses	\$ 10,301,585	\$ 10,562,037	\$ 260,452
Indirect Expenses	\$ 8,614,510	\$ 8,777,698	\$ 163,188
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 148,813	\$ 195,148	\$ 46,335
Total Funding Requirement	\$ 19,064,908	\$ 19,534,883	\$ 469,975

Table A-3. Compliance Monitoring and Enforcement; Organization Registration and Certification Program Budget

Program Scope and Functional Description

The purpose of the Compliance Monitoring and Enforcement program is to ensure that all compliance monitoring, risk assessment, mitigation, and enforcement activities are risk-based, reliability-focused, and adhere to the requirements of the SERC Delegation Agreement and the ERO Enterprise Compliance Monitoring and Enforcement Program (CMEP) Implementation Plan. To accomplish this objective, SERC has divided its Compliance Monitoring and Enforcement program into four areas: Organization Registration and Certification, Compliance Monitoring, Risk Assessment and Mitigation, and Enforcement.

Organization Registration and Certification

- Registers owners, operators, and users of the BPS for compliance with Reliability Standards; and
- Certifies applicable entities.

Compliance Monitoring

- Uses a risk-based monitoring approach to conduct SERC compliance monitoring activities (e.g., audits, spot checks, self-certifications, and Compliance Investigations);
- Performs registered entity Internal Controls Evaluations and reviews entity internal controls during monitoring engagements;
- Provides subject matter experts for Standards and Requirements; and
- Implements and maintains the Critical Infrastructure Protection (CIP) Standards Technical Feasibility Exceptions (TFEs) process.

Risk Assessment and Mitigation (RAM)

- Conducts registered entity Inherent Risk Assessments;
- Develops and implements entity Compliance Oversight Plans (COPs);
- Serves as the technical point of contact for all noncompliance issues discovered and/or self-reported;

- Performs risk-harm assessments on noncompliance issues, which include determining the scope and root cause of the noncompliance, and the potential and actual risk or harm to BPS reliability;
- Reviews and approves the registered entity’s mitigating activities to ensure the registered entity performs the actions necessary to correct the noncompliance and prevent recurrence to protect BPS reliability;
- Administers the SERC Regional self-logging program; and
- Performs Compliance Evaluations, when required, on events reported by registered entities.

Enforcement

SERC Enforcement staff are responsible for resolving violations/noncompliance issues of NERC Reliability Standards and/or SERC Regional Reliability Standards, and imposing penalties or non-monetary sanctions, as appropriate. SERC Enforcement staff follows these steps:

- Notifies the registered entity of the findings and filing disposition regarding the violation/noncompliance and any applicable monetary penalties or non-monetary sanctions;
- Negotiates settlement with the registered entity or issues a Notice of Alleged Violation and Proposed Penalty and/or Sanction, if SERC and the registered entity cannot reach a settlement agreement;
- Submits the proposed enforcement action, along with any proposed penalty or non-monetary sanctions, to NERC for review, approval, and subsequent submittal to FERC for review and approval; and
- Prosecutes the case before a Hearing Body if a registered entity contests the findings of the violation, penalty, and/or non-monetary sanction.

2022 Key Assumptions

Compliance

The 2022 key assumptions for the SERC Compliance program, which includes Compliance Monitoring and RAM are as follows:

- The Compliance Monitoring team incorporates a purposeful risk-based approach into audit planning and execution. This risk-based approach generally results in more frequent visits to entities posing a higher risk to the grid, and few visits to entities posing a lower risk.
- The Compliance Monitoring team works to continuously improve by incorporating lessons learned during the COVID-19 pandemic, and performing virtual audits during 2020 and 2021. Incorporating lessons learned resulted in the modification of audit team sizes. Reducing the number of audit team member travel lowers travel expenses, for a net change of reduced travel expenses in 2022.
- Compliance Monitoring plans to increase the use of self-certifications for monitoring engagements for lower risk entities and to use the results to inform the scope for

monitoring in future years, as we have smaller more risk-focused engagements with the highest risk entities.

- The number of incoming noncompliances, whether through audit findings or self-reports, will remain relatively consistent with trends over the past 12 to 24 months.
- As subject matter experts, the Compliance and RAM staff will continue to receive training on risk principles, internal controls, and enhanced audit practices. Additionally, staff will pursue or maintain professional credentials and further enhance their knowledge on risk-based CMEP processes. This will ensure the skills of SERC staff remain current on industry trends and Reliability Standards.
- The number of CIP TFE requests is expected to continue to decline as the CIP programs for registered entities mature.

Organization Registration and Certification

- SERC Registration and Certification staff will continue to address the Regional Risk identified in SERC's annual Regional Risk Report associated with the potential for the incorrect registration of entities within the SERC Region.
- Due to the significant changes to the generation fuel mix in the SERC Region, the volume of registration changes is expected to increase as a result of generation decommissioning (retirements) and subsequent installation of new generation facilities.
- SERC Registration and Certification staff will continue to collaborate with NERC and implement the NERC ROP changes to the approved certification process to assess a registered entity's capability for performing its registered function(s). SERC expects the volume of certification engagements to increase.
- The volume of documents for the Joint Registration Organization (JRO), Coordinated Functional Registration (CFR), and the Multi-Regional Registered Entity (MRRE) may increase as registered entities better delineate shared responsibilities and promote efficiency and effectiveness in compliance. This increase will affect the workload for Registration and Compliance Monitoring within SERC.
- The ERO Enterprise will facilitate meetings with Regional Entities in the development of application business requirements and the testing of business functionality for ERO Enterprise projects. SERC Registration and Certification staff expects to have an active role in the development of ERO Enterprise CMEP Tools, which may require additional resources to provide an adequate level of support.

Enforcement

The 2022 key assumptions for the SERC Enforcement program area are as follows:

- SERC will likely continue to see a high number of enforcement actions due to the implementation of new Standards and new versions of Standards, both CIP and Operations and Planning, and due to the increase in compliance audits from the entities which transferred to SERC from Florida.

- SERC will process or dismiss Possible Violations in a timely and fair manner; and
- There will be no significant increase in travel for Enforcement staff to process Possible Violations.

2022 Goals and Key Deliverables

Compliance Monitoring and Risk Assessment and Mitigation

The 2022 goals and key deliverables for Compliance Monitoring and RAM are as follows:

- Conduct scheduled risk based Compliance Monitoring engagements pursuant to the 2022 Implementation Plan. Compliance Monitoring engagements for 2022 will consider on-site audits, off-site audits, spot checks, and self-certifications. As the RAM team completes or refreshes registered entities' Inherent Risk Assessments and Compliance Oversight Plans (COPs), the 2022 Compliance Monitoring schedule may change, with additional engagements added;
- Continue to process and reduce backlog inventory, achieving an average age of open inventory that does not exceed 12 months;
- Facilitate efficient and collaborative transitions to new and revised Standards through continued ERO Enterprise-wide collaboration;
- Work with the ERO Enterprise and industry to provide information on effective procedures and programs to monitor, detect, correct, report, and prevent deficiencies in compliance, reliability, and security;
- Collaborate with the ERO Enterprise and encourage effective internal controls models;
- Evaluate the compliance monitoring, violation/noncompliance processing, risk assessment, and registration and certification activities for sufficiency and effectiveness, and modify the activities, as needed;
- Collaborate with the ERO Enterprise to develop common and consistent CMEP processes, information systems, and methods among Regions;
- Refine and implement risk-based compliance monitoring and enforcement by focusing on serious risk violations to improve the effectiveness of SERC operations, and reducing unnecessary costs of compliance on registered entities while ensuring achievement of reliability objectives;
- Ensure timely mitigation of all violations/noncompliance to restore compliance and prevent recurrence, thereby maintaining the reliability of the BPS;
- Develop mature violation/noncompliance processing management tools and training based on risk-based techniques to improve the efficiency, transparency, consistency, quality, and timeliness of violation/noncompliance processing;
- Continue an active role in ERO Enterprise-wide Align and Secure Evidence Locker (SEL) development and implementation; and
- Continue to support the training requirements necessary to meet the criteria set forth by the ERO Auditor Manual and Handbook and the Compliance Auditor Capabilities and Competency Guide. SERC will work to ensure that:
 - Compliance Monitoring staff and other personnel, as necessary, understand Compliance implementation guidance documents and risk-based principles;

- An annual process exists for personnel to acknowledge their commitment to Professional Standards, Ethical Principles, and Rules of Conduct;
- A continual assessment process exists to evaluate audit team content and capability needs; and
- Training exists that addresses initial and continuing training for capability and competency development.

Organization Registration and Certification

- The 2022 goals and key deliverables for Organization Registration and Certification are as follows: Operate an efficient Registration and Certification program that:
 - Ensures that SERC provides NERC timely and accurate information about changes in registrations;
 - Performs certification reviews, or if a new certification is required, accommodates a change in a registered entity's status; and
 - Documents certification activities sufficiently and makes recommendations to NERC regarding certification.

Enforcement

The 2022 goals and key deliverables for the Enforcement program area are as follows:

- Manage Enforcement activities in an unbiased, fair, and consistent manner to ensure due process for all registered entities;
- Collaborate with the RAM team to continue to reduce backlog inventory, achieving an average age of open inventory that does not exceed 12 months;
- Hold registered entities accountable for violations that create a serious risk to the BES with penalties and/or non-monetary sanctions commensurate with the risk posed to the security and reliability of the BES;
- Continue messaging to registered entities, via penalties, non-monetary sanctions, or otherwise, desired behavior that SERC and the ERO Enterprise value, including self-reporting, continued engagement and cooperation during enforcement processing, maintaining a strong Internal Compliance Program, voluntary and prompt mitigation to reduce risk, taking ownership of undesired behavior by admitting violations, and resolving violations through a settlement agreement;
- Collaborate with the RAM and Advanced Analytics and IT departments to develop effective tools to quickly identify and share with stakeholders themes, trends, and emerging risks associated with their noncompliance;
- Continue to collaborate and strategize with the ERO Enterprise on enforcement policy initiatives and guidance that increases efficiency and consistency in processing Possible Violations and
- Continue an active role in ERO Enterprise-wide Align and SEL development and implementation.

Resource Requirements

Personnel

An increase of 0.30 FTEs is due to the realignment of personnel supporting the Compliance Monitoring and Enforcement; Organization Registration and Certification Program.

Meeting and Travel

Compliance Monitoring activity has decreased over previous years as a result of efficiencies and lessons learned during the pandemic, resulting in overall reduced Compliance Monitoring travel costs.

**Compliance Monitoring, Enforcement, and Organization Registration and
Certification Budget Detail**

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
COMPLIANCE MONITORING AND ENFORCEMENT; ORGANIZATION REGISTRATION AND CERTIFICATION					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Budget v 2021 Projection Over(Under)	Budget	2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 17,445,909	\$ 17,445,909	\$ -	\$ 18,220,737	\$ 774,828
Penalties Released	877,996	877,996	-	887,034	9,038
Total Statutory Funding	\$ 18,323,905	\$ 18,323,905	\$ -	\$ 19,107,771	\$ 783,866
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	32,090	6,000	(26,090)	29,480	(2,610)
Interest	22,322	22,339	17	22,176	(146)
Total Funding (A)	\$ 18,378,317	\$ 18,352,244	\$ (26,073)	\$ 19,159,427	\$ 781,110
Expenses					
Personnel Expenses					
Salaries	\$ 7,474,586	\$ 7,539,344	\$ 64,758	\$ 7,811,906	\$ 337,320
Payroll Taxes	523,221	527,754	4,533	468,714	(54,507)
Benefits	812,343	757,056	(55,287)	825,332	12,989
Retirement Costs	942,920	950,573	7,653	984,930	42,010
Total Personnel Expenses	\$ 9,753,070	\$ 9,774,727	\$ 21,657	\$ 10,090,882	\$ 337,812
Meeting Expenses					
Meetings & Conference Calls	\$ 18,500	\$ 8,000	\$ (10,500)	\$ 12,600	\$ (5,900)
Travel	501,485	350,556	(150,929)	419,975	(81,510)
Total Meeting Expenses	\$ 519,985	\$ 358,556	\$ (161,429)	\$ 432,575	\$ (87,410)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	28,530	36,730	8,200	38,580	10,050
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 28,530	\$ 36,730	\$ 8,200	\$ 38,580	\$ 10,050
Total Direct Expenses	\$ 10,301,585	\$ 10,170,013	\$ (131,572)	\$ 10,562,037	\$ 260,452
Indirect Expenses	\$ 8,614,510	\$ 8,482,632	\$ (131,879)	\$ 8,777,698	\$ 163,188
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 18,916,095	\$ 18,652,645	\$ (263,451)	\$ 19,339,735	\$ 423,640
Change in Assets	\$ (537,778)	\$ (300,401)	\$ 237,378	\$ (180,308)	\$ 357,470
Fixed Assets, excluding Right of Use Assets (C)	\$ 148,813	\$ 319,875	\$ 171,062	\$ 195,148	\$ 46,335
TOTAL BUDGET (B+C)	\$ 19,064,908	\$ 18,972,520	\$ (92,389)	\$ 19,534,883	\$ 469,975
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (686,591)	\$ (620,276)	\$ 66,316	\$ (375,456)	\$ 311,135
FTEs	50.15	50.45	0.30	50.45	0.30

Table A-4. Compliance Monitoring and Enforcement and Organization Registration and Certification Budget Detail

Reliability Assessment and Performance Analysis Program

Reliability Assessment and Performance Analysis (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	6.30	6.30	-
Direct Expenses	\$ 1,550,926	\$ 1,615,375	\$ 64,449
Indirect Expenses	\$ 1,082,182	\$ 1,096,125	\$ 13,943
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 18,694	\$ 24,369	\$ 5,675
Total Funding Requirement	\$ 2,651,802	\$ 2,735,869	\$ 84,067

Table A-5. Reliability Assessments and Performance Analysis Budget

Program Scope and Functional Description

SERC's Reliability Assessments and Performance Analysis (RAPA) program provides assessment of future reliability of the BPS. The RAPA function identifies reliability risks to the BPS in the SERC footprint for the purpose of integrated risk analysis. The program supports SERC's mission by identifying risks to reliability, analyzing performance, and prioritizing significant risks.

SERC conducts an independent reliability assessment of the BPS within the SERC Region, including model building, studies, and analysis. The assessment program uses information from internal data sources along with other programs, such as NERC Transmission Availability Data System (TADS), Generating Availability Data Systems (GADS), Demand Response Availability Data System (DADS), and the Misoperations Information Data Analysis System (MIDAS). SERC evaluates the overall reliability, performance, and adequacy of the SERC Region and reports its results to NERC. SERC's work supports NERC's obligation to perform similar analysis of the interconnected North American BPS.

2022 Key Assumptions

The 2022 key assumptions for the SERC RAPA program are as follows:

- SERC will continue to support NERC's RAPA program to analyze data, develop assessments, and report on the reliability of the BPS.
- SERC will support the ERO Enterprise in the identification and mitigation of significant current reliability risks, as well as the identification and assessment of emerging risks.
 - SERC will continue to support its role per the Eastern Interconnection Regional Entity Assessments and Model Building Agreement, developed within the Eastern Interconnection Reliability Assessment Group (ERAG).
- SERC will continue to support its integrated risk management initiatives to promote awareness and discuss strategies for risk mitigation.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the RAPA program will support the following goals:

- Continue to support NERC Reliability Assessments, Performance Analysis, and System Analysis programs;

- Support Regional analysis that contributes to NERC reliability analysis efforts, SERC reliability risk discussions, and performance analysis efforts;
- Continue to submit timely and quality probabilistic, seasonal, and long-term SERC and NERC reliability assessments and studies;
- Continue to support ongoing improvements to SERC and ERAG Eastern Interconnection planning models, structure, assessments, and analysis;
- Provide support to the associated SERC and NERC committees and initiatives;
- Continue to support entity outreach efforts to increase reliability risk-related discussions;
- Assess the need for advanced probabilistic tools to support resource adequacy sensitivities and Regional model improvements, and acquire tools based upon findings;
- Complete annual FERC Form 715 and Energy Information Administration (EIA) submittals on behalf of SERC registered entities within specified periods; and
- Continue NERC and Regional coordination to improve processes, and information required to implement enhanced Regional analytical efforts.

Resource Requirements

Personnel

The number of FTEs assigned to RAPA is consistent with 2021.

Meeting & Travel Expenses

RAPA staff travel decreased over previous years as a result of efficiencies and lessons learned during the pandemic, resulting in overall reduced travel costs.

Contractors and Consultants

The 2022 budget includes contractor support for a probabilistic assessment performed through the Resource Adequacy Working Group, as well as the addition of contractor support for the Under Frequency Load Shedding and special studies.

Reliability Assessment and Performance Analysis Budget Detail

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
RELIABILITY ASSESSMENT AND PERFORMANCE ANALYSIS					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 2,440,677	\$ 2,440,677	\$ -	\$ 2,567,440	\$ 126,763
Penalties Released	110,297	110,297	-	110,769	472
Total Statutory Funding	\$ 2,550,974	\$ 2,550,974	\$ -	\$ 2,678,209	\$ 127,235
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	2,524	-	(2,524)	2,308	(216)
Interest	2,804	2,790	(14)	2,769	(35)
Total Funding (A)	\$ 2,556,302	\$ 2,553,764	\$ (2,538)	\$ 2,683,286	\$ 126,984
Expenses					
Personnel Expenses					
Salaries	\$ 929,064	\$ 949,025	\$ 19,961	\$ 977,497	\$ 48,433
Payroll Taxes	65,035	66,432	1,397	58,650	(6,385)
Benefits	106,764	98,565	(8,199)	103,741	(3,023)
Retirement Costs	117,183	119,619	2,436	123,207	6,024
Total Personnel Expenses	\$ 1,218,046	\$ 1,233,641	\$ 15,595	\$ 1,263,095	\$ 45,049
Meeting Expenses					
Meetings & Conference Calls	\$ 60,000	\$ 43,000	\$ (17,000)	\$ 42,000	\$ (18,000)
Travel	85,080	53,080	(32,000)	72,000	(13,080)
Total Meeting Expenses	\$ 145,080	\$ 96,080	\$ (49,000)	\$ 114,000	\$ (31,080)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 170,000	\$ 170,000	\$ -	\$ 212,500	\$ 42,500
Office Rent	-	-	-	-	-
Office Costs	17,800	25,400	7,600	25,780	7,980
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 187,800	\$ 195,400	\$ 7,600	\$ 238,280	\$ 50,480
Total Direct Expenses	\$ 1,550,926	\$ 1,525,121	\$ (25,805)	\$ 1,615,375	\$ 64,449
Indirect Expenses	\$ 1,082,182	\$ 1,059,278	\$ (22,904)	\$ 1,096,125	\$ 13,943
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 2,633,108	\$ 2,584,399	\$ (48,709)	\$ 2,711,500	\$ 78,392
Change in Assets	\$ (76,806)	\$ (30,635)	\$ 46,171	\$ (28,214)	\$ 48,592
Fixed Assets, excluding Right of Use Assets (C)	\$ 18,694	\$ 39,945	\$ 21,251	\$ 24,369	\$ 5,675
TOTAL BUDGET (B+C)	\$ 2,651,802	\$ 2,624,344	\$ (27,458)	\$ 2,735,869	\$ 84,067
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (95,500)	\$ (70,580)	\$ 24,920	\$ (52,583)	\$ 42,917
FTEs	6.30	6.30	-	6.30	-

Table A-6. Reliability Assessment and Performance Analysis Budget Detail

Training, Education, and Stakeholder Outreach

Training, Education and Stakeholder Outreach (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	7.95	8.00	0.05
Direct Expenses	\$ 1,511,835	\$ 1,565,807	\$ 53,972
Indirect Expenses	\$ 1,365,610	\$ 1,391,905	\$ 26,295
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 23,591	\$ 30,945	\$ 7,354
Total Funding Requirement	\$ 2,901,036	\$ 2,988,657	\$ 87,621

Table A-7. Training, Education, and Stakeholder Outreach Budget

Program Scope and Functional Description

The SERC Training, Education, and Stakeholder Outreach programs provide education and training necessary to obtain essential knowledge of BPS operations, reliability and security. These programs collectively provide many risk-based outreach options to stakeholders to increase engagement, knowledge, and understanding in the SERC Region and beyond. These options offer access to coaching, training, and educational opportunities through several formats, tools, and venues.

SERC Training and Education programs have annual scheduled events and targeted efforts directed at external stakeholders. Additionally, Training and Educational programs support the continuing education of NERC Certified System Operators, security and compliance professionals, trainers, and other critical subject matter experts. Stakeholder Outreach is a voluntary program that offers targeted coaching and training to requesting registered entities, focused on best practices and risk mitigation.

2022 Key Assumptions

The 2022 key assumptions for the SERC Training, Education, and Stakeholder Outreach programs are as follows:

- SERC will support the ERO initiative to expand risk-based focused programs and committees. Achieving this goal will require structured training.
- SERC will support the ERO goal to mitigate known and emerging risks by providing timely and valuable outreach and training events to stakeholders. Additionally, the Stakeholder Outreach program provides guidance and coaching to entities on effective mitigation of identified and emerging risks.
- SERC's Training program will maintain SERC's status as a NERC certified Continuing Education Provider and provide training to operating personnel to promote effective operating, reliability, and security of the BPS.
- SERC will educate utility personnel regarding changes to NERC Reliability Standards, ERO procedures, and programs that detect, monitor, report, correct, and prevent recurrence of issues with risk, reliability, security, and compliance.
- SERC will increase targeted outreach efforts that promote BPS reliability, security, and risk mitigation across its footprint.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC Training, Education, and Stakeholder Outreach programs are as follows:

:

- Develop and deliver training on required technical knowledge, skills, and abilities for key staff positions within SERC;
- Develop and deliver four System Operator Conferences that promote BPS reliability by assuring the competence of real-time operating personnel through continuing education on power system operating topics;
- Deliver risk-based security and reliability seminars or webinars to BPS system operators, operating support personnel, compliance personnel, security personnel, and training personnel to raise awareness and provide training on identified and emerging reliability, security, and compliance threats;
- Provide guidance and expectations of new or revised Reliability Standards and related procedures and programs, as well as changes in observed performance;
- Develop and deliver to internal and external stakeholders, timely and effective education that promotes the mission of SERC and the ERO Enterprise; and
- Provide targeted outreach that communicates, trains, and supports the mitigation of threats to the BPS.

Resource Requirements**Personnel**

The number of FTEs assigned to the Training, Education, and Stakeholder Outreach programs is consistent with 2021.

Training, Education, and Stakeholder Outreach Budget Detail

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
TRAINING AND OUTREACH					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 2,514,652	\$ 2,514,652	\$ -	\$ 2,654,111	\$ 139,459
Penalties Released	139,184	139,184	-	140,659	1,475
Total Statutory Funding	\$ 2,653,836	\$ 2,653,836	\$ -	\$ 2,794,770	\$ 140,934
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	139,185	68,000	(71,185)	132,930	(6,255)
Interest	3,539	3,321	(218)	3,516	(23)
Total Funding (A)	\$ 2,796,560	\$ 2,725,157	\$ (71,403)	\$ 2,931,216	\$ 134,656
Expenses					
Personnel Expenses					
Salaries	\$ 914,536	\$ 951,793	\$ 37,257	\$ 980,344	\$ 65,808
Payroll Taxes	64,211	66,626	2,415	58,821	(5,390)
Benefits	111,815	100,947	(10,868)	98,832	(12,983)
Retirement Costs	115,340	119,981	4,641	123,580	8,240
Total Personnel Expenses	\$ 1,205,902	\$ 1,239,347	\$ 33,445	\$ 1,261,577	\$ 55,675
Meeting Expenses					
Meetings & Conference Calls	\$ 113,094	\$ 112,354	\$ (740)	\$ 120,153	\$ 7,059
Travel	96,492	54,470	(42,022)	85,690	(10,802)
Total Meeting Expenses	\$ 209,586	\$ 166,824	\$ (42,762)	\$ 205,843	\$ (3,743)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 94,345	\$ 94,345	\$ -	\$ 96,570	\$ 2,225
Office Rent	-	-	-	-	-
Office Costs	2,002	2,002	-	1,817	(185)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 96,347	\$ 96,347	\$ -	\$ 98,387	\$ 2,040
Total Direct Expenses	\$ 1,511,835	\$ 1,502,518	\$ (9,317)	\$ 1,565,807	\$ 53,972
Indirect Expenses	\$ 1,365,610	\$ 1,261,045	\$ (104,565)	\$ 1,391,905	\$ 26,295
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 2,877,445	\$ 2,763,563	\$ (113,882)	\$ 2,957,712	\$ 80,267
Change in Assets	\$ (80,885)	\$ (38,406)	\$ 42,479	\$ (26,496)	\$ 54,389
Fixed Assets, excluding Right of Use Assets (C)	\$ 23,591	\$ 47,553	\$ 23,962	\$ 30,945	\$ 7,354
TOTAL BUDGET (B+C)	\$ 2,901,036	\$ 2,811,116	\$ (89,920)	\$ 2,988,657	\$ 87,621
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (104,476)	\$ (85,959)	\$ 18,517	\$ (57,441)	\$ 47,035
FTEs	7.95	7.50	(0.45)	8.00	0.05

Table A-8. Training, Education, and Stakeholder Outreach Budget Detail

Situational Awareness and Infrastructure Security Program

Situation Awareness and Infrastructure Security (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.50	3.00	0.50
Direct Expenses	\$ 551,222	\$ 694,198	\$ 142,976
Indirect Expenses	\$ 429,437	\$ 521,964	\$ 92,527
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 7,418	\$ 11,604	\$ 4,186
Total Funding Requirement	\$ 988,077	\$ 1,227,766	\$ 239,689

Table A-9. Situational Awareness and Infrastructure Security Budget

Program Scope and Functional Description

The SERC Situational Awareness and Infrastructure Security (SAIS) program identifies and analyzes events and conditions that present risk to the BPS. This is accomplished by monitoring sources of information and maintaining communications with stakeholders, NERC, and other organizations. SERC analyzes significant BPS events and develops lessons learned to educate stakeholders on risks and vulnerabilities that could recur elsewhere within the BPS.

2022 Key Assumptions

The 2022 key assumptions for the SERC SAIS program are as follows:

- SERC will support the ERO Enterprise in the identification and mitigation of significant reliability risks, as well as the identification and assessment of conditions that indicate emerging risks.
- SERC will continue to work with NERC’s Electricity Information Sharing and Analysis Center (E-ISAC) and SERC registered entities to identify opportunities for improving information sharing on CIP-related events, threats, and vulnerabilities to improve reliability within the BPS.
- SERC will continue its Outreach program to communicate lessons learned from analysis of SAIS events.
- SERC will continue to review, track, and trend reliability events to support the ERO Enterprises’ goal of fewer, less severe events in the SERC Region.
- SERC will share mitigating measures and other BPS improvements with SERC entities and the ERO Enterprise to improve reliability on the BPS.
- SERC will continue to work with other Regional SAIS groups to identify conditions or best practices that improve reliability within the BPS.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC SAIS program are as follows:

- Continue to increase the utilization of data collection tools and data analysis to provide oversight of the BPS to support NERC reporting requirements;
- Evaluate events information to identify risk trends and benchmarking efforts;

- Develop SERC Reliability Bulletins and support NERC Lessons Learned initiatives;
- Continue stakeholder outreach efforts that encourage stakeholder participation in the SAIS program;
- Facilitate and promote post-event collaboration and coordination with NERC and applicable governmental agencies;
- Identify and prioritize risks based on reliability impacts, assessments, projected resources, and emerging issues; and
- Monitor and evaluate CIP-related threats, vulnerabilities, and events for information sharing with internal and external stakeholders.

Resource Requirements**Personnel**

An increase of 0.50 FTEs is due to the realignment of personnel supporting the SAIS program.

Situational Awareness and Infrastructure Security Budget Detail

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
SITUATION AWARENESS AND INFRASTRUCTURE SECURITY					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ 906,610	\$ 906,610	\$ -	\$ 1,149,004	\$ 242,394
Penalties Released	43,769	43,769	-	52,747	8,978
Total Statutory Funding	\$ 950,379	\$ 950,379	\$ -	\$ 1,201,751	\$ 251,372
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	1,001	-	(1,001)	1,099	98
Interest	1,113	1,328	215	1,319	206
Total Funding (A)	\$ 952,493	\$ 951,707	\$ (786)	\$ 1,204,169	\$ 251,676
Expenses					
Personnel Expenses					
Salaries	\$ 391,291	\$ 492,474	\$ 101,183	\$ 507,248	\$ 115,957
Payroll Taxes	27,390	34,473	7,083	30,435	3,045
Benefits	44,216	47,555	3,339	49,258	5,042
Retirement Costs	49,346	62,066	12,720	63,928	14,582
Total Personnel Expenses	\$ 512,243	\$ 636,568	\$ 124,325	\$ 650,869	\$ 138,626
Meeting Expenses					
Meetings & Conference Calls	\$ 1,500	\$ -	\$ (1,500)	\$ -	\$ (1,500)
Travel	37,000	29,000	(8,000)	42,500	5,500
Total Meeting Expenses	\$ 38,500	\$ 29,000	\$ (9,500)	\$ 42,500	\$ 4,000
Operating Expenses, excluding Depreciation					
Consultants & Contracts	-	-	-	-	-
Office Rent	-	-	-	-	-
Office Costs	479	479	-	829	350
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 479	\$ 479	\$ -	\$ 829	\$ 350
Total Direct Expenses	\$ 551,222	\$ 666,047	\$ 114,825	\$ 694,198	\$ 142,976
Indirect Expenses	\$ 429,437	\$ 504,418	\$ 74,981	\$ 521,964	\$ 92,527
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 980,659	\$ 1,170,465	\$ 189,806	\$ 1,216,162	\$ 235,503
Change in Assets	\$ (28,166)	\$ (218,758)	\$ (190,592)	\$ (11,993)	\$ 16,173
Fixed Assets, excluding Right of Use Assets (C)	\$ 7,418	\$ 19,021	\$ 11,603	\$ 11,604	\$ 4,186
TOTAL BUDGET (B+C)	\$ 988,077	\$ 1,189,486	\$ 201,409	\$ 1,227,766	\$ 239,689
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (35,584)	\$ (237,779)	\$ (202,195)	\$ (23,597)	\$ 11,987
FTEs	2.50	3.00	0.50	3.00	0.50

Table A-10. Situational Awareness and Infrastructure Security Budget Detail

Corporate Services

Corporate Services (in whole dollars) Direct Expenses and Fixed Assets						
	2021 Budget	2022 Budget	Increase (Decrease)	FTEs 2021 Budget	FTEs 2022 Budget	Increase (Decrease)
Technical Committees and Member Forums	\$ 1,089,562	\$ 1,129,720	\$ 40,158	3.90	3.90	-
General and Administrative	\$ 4,224,800	\$ 4,357,419	\$ 132,619	9.00	8.65	(0.35)
Legal and Regulatory	\$ 1,344,517	\$ 1,441,805	\$ 97,288	2.90	2.90	-
Analytics & Information Technology	\$ 3,734,775	\$ 3,585,056	\$ (149,719)	10.80	14.30	3.50
Human Resources	\$ 934,097	\$ 1,138,627	\$ 204,530	3.00	3.00	-
Accounting and Finance	\$ 449,876	\$ 486,059	\$ 36,183	3.00	3.00	-
Total Corporate Services	\$ 11,777,627	\$ 12,138,686	\$ 361,059	32.60	35.75	3.15

Table A-11. Corporate Services Budget

Program Scope and Functional Description

SERC's Corporate Services program includes the budget for all business and administrative functions of the organization:

- Technical Committees and Member Forums
- General and Administrative
- Legal and Regulatory
- Advanced Analytics and IT
- Human Resources
- Finance and Accounting

Methodology for Allocation of Corporate Services Expenses to Programs

Expenses related to indirect programs are allocated proportionally to the direct programs for 2022 based on the number of FTEs in those programs.

Where applicable, Operating Expenses are accounted for within the related department's budget. If an expense cannot be attributed to a specific department, it is included in one of the Corporate Services programs. All expenses for the Corporate Services program, referred to as indirect expenses, are allocated proportionately based on FTE count to the direct programs. This allocation provides improved financial perspective for the direct program areas.

Technical Committees and Member Forums

Program Scope and Functional Description

The Technical Committees and Member Forums programs serve to strengthen capabilities within the Region to plan and operate the BPS reliably, securely, and in compliance with Reliability Standards. The success of these programs depends on the active and direct participation of its members. The forums are also a source of expertise in the industry to address current and emerging risk to the BPS.

2022 Key Assumptions

The 2022 key assumptions for the SERC Technical Committees and Member Forums programs are as follows:

- SERC will continue its Technical Committee and subgroup structure for effective stakeholder involvement in 2022.
- SERC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability.
- SERC's Reliability Risk Working Group (RRWG) will continue to identify, and educate SERC staff and Regional members about the reliability risks to the BPS in the SERC Region from an engineering, operations, and security perspective.
- SERC will continue to leverage its members as volunteer technical resources to support the Region's mission and initiatives. As needs change, SERC will assess committee structure to continue to meet the needs of our members.
- SERC Technical Committees and Member Forums programs will manage committee work according to the *Organization and Procedures Manual for SERC Technical Committees*.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC Technical Committees and Member Forums programs are as follows:

- Convene regular meetings of the standing committees and their subordinate groups, as necessary;
- Communicate to the Board and SERC staff on issues pertaining to operation, planning, and engineering of the BPS, and the advancement of the physical and cyber security of the BPS;
- Provide a forum for representatives to share experience and discuss issues of operating, planning and engineering, and physical and cyber security;
- Perform special projects at the request of the Board;
- Review the measurement of performance relative to Reliability Standards and performance statistics (e.g., GADS, TADS, Misoperations, etc.) to determine the risk level within the SERC Region;
- Review activities within the SERC Region that affect reliability and adequacy, as necessary, to meet Reliability Standards and other reliability initiatives;
- Perform technical functions through the assignment of specific tasks to subordinate groups to address current and emerging risks; and
- Provide key inputs from the SERC RRWG for the CMEP Implementation Plan.

Resource Requirements

Personnel

The number of FTEs assigned to the Technical Committees and Member Forums programs is consistent with 2021.

Meetings

Meeting expenses in 2022 reflect an increase due to higher cost of facilities and the increased participation in Technical Committees.

General and Administrative

Program Scope and Functional Description

The SERC General and Administrative function provides executive management and oversight of the corporation. Responsibilities include interacting with the Board, performing the Corporate Treasurer function, and fostering strong relationships through coordinated and consistent outreach with governmental agencies, regulators, stakeholders, and other industry organizations.

The department ensures execution of the SERC strategic priorities and the day-to-day management of the corporation.

2022 Key Assumptions

The 2022 key assumptions for the SERC General and Administrative function are as follows:

- SERC will emphasize effective execution, efficiency, and transparency with a strong culture of continuous improvement and program readiness.
- SERC will facilitate reliability-enhancing activities.
- SERC will continue its outreach and communication with stakeholders to promote effective reduction of risk to the BPS.

The General and Administrative Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. ERO strategic and operational objectives are considered in the development and maintenance of the SERC Strategic Plan on an annual basis.

2022 Goals and Key Deliverables

The SERC General and Administrative function will support the following goals:

- Continue high-quality performance of delegated functions while maintaining an appropriate resource requirement; and
- Provide pertinent and timely information to stakeholders to improve efficiency of interactions with SERC staff.
- Manage interface with NERC enterprise-wide internal audit initiatives

Resource Requirements

Personnel

There was a decrease of 0.35 FTE in the General and Administrative function due to the reallocation to support additional FTE needs in the CMEP and SAIS programs.

Contractors and Consultants

The 2022 budget includes support for corporate strategic initiatives.

Legal and Regulatory

Program Scope and Functional Description

SERC maintains in-house legal staff and hires outside legal consultants, as needed. These legal resources provide the following services:

- Provide legal advice to the Chief Executive Office, Board, and staff on legal and regulatory matters that affect SERC;
- Reconcile and determine SERC's legal position on all legal matters;
- Draft and review items filed with governmental agencies for legal sufficiency;
- Support SERC's corporate governance function, including facilitating implementation of governance changes to transition the Board into a more strategic oversight body and providing input on matters for the Board's consideration;
- Review contracts and corporate documents;
- Ensure continuing recognition of SERC as a Regional Entity;
- Negotiate and author necessary changes to SERC's governing documents, including the SERC Bylaws and Regional Delegation Agreement with NERC;
- Provide input and obtain regulatory approvals, as needed, on governance changes and for new and revised Regional Reliability Standards;
- Review legal documents, including Notices of Penalty and settlement agreements, required to be filed with FERC. Provide legal support for contested enforcement actions and other assistance;
- Provide legal counsel during compliance and enforcement proceedings and support the approval process of enforcement filings before the NERC Board of Trustees Compliance Committee and FERC;
- Interface with the appropriate authorities regarding responses/filings to related governmental/regulatory directives/orders;
- Develop SERC's strategic engagement with states by building relationships with policy makers and regulators in each of the 16 states in the SERC footprint to educate on what SERC does in the areas of reliability and security, NERC and regional assessments, and reports.
- Assist in the development of and ensure proper administration of SERC corporate policies and procedures; and
- Manage relationships with SERC's outside counsel.

2022 Key Assumptions

The 2022 key assumptions for the SERC Legal and Regulatory function are as follows:

- SERC will continue to support SERC's governance structure by supporting the Board and Board committees, facilitating the selection of stakeholder and independent directors, and drafting and obtaining approval of any necessary modifications to Bylaws and other corresponding governance changes.
- SERC will continue to support the processing of enforcement actions through the development of settlement agreements and Notices of Penalty, leading settlement negotiations with the registered entities, discussing resolutions with NERC, obtaining approvals from the NERC Board of Trustees Compliance Committee, and with FERC;

- SERC will continue to enhance its strategic engagement with states by building relationships with policy makers and regulators in each of the 16 states in the SERC footprint to educate on what SERC does in the areas of reliability and security, NERC and regional assessments, and reports.
- SERC will proactively engage with NERC and FERC to help ensure SERC’s continued recognition as a Regional Entity.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC Legal and Regulatory function are as follows:

- Work with Enforcement to support processing enforcement actions, including the documentation of settlement agreements and Notices of Penalty, through the filing process at FERC;
- Support SERC’s corporate governance needs;
- Support SERC’s corporate legal needs; and
- Work with NERC and other Regions on obtaining renewal of SERC’s Regional Delegation Agreement with NERC.

Resource Requirements

Personnel

The number of FTEs assigned to the Legal and Regulatory function is consistent with 2021.

Meeting Expenses

The 2022 budget includes an increase in meeting and travel expenses due to anticipated higher costs for facilities and support services for the annual offsite Board and membership meeting.

Professional Services

A decrease in legal fees is based on historical actuals, with Independent Director fees increasing to reflect actual costs.

Advanced Analytics and Information Technology

Program Scope and Functional Description

SERC's Advanced Analytics and IT departments are integrating a robust data management framework to provide technology innovation, support data collection efforts across SERC, and develop insights through data to inform several risk-based programs across SERC. The Advanced Analytics and IT programs include the following functions:

- IT and Security Operations
- Advanced Analytics

The IT function offers computer and network services, including design and maintenance for the SERC computer and network infrastructure, as well as project and vendor management for all current and future technology-related contracts. SERC's IT and Security Operations function will continue efforts to enhance the company's security posture to ensure cybersecurity is an essential component of the organization's culture. The IT program executes the following functions:

- Improves SERC's information systems security and resiliency through the adoption of the National Institute of Standards and Technology (NIST) Cybersecurity Framework;
- Maintains network and computer infrastructure;
- Ensures protection of SERC and registered entity data;
- Provides onsite end user support and services to conduct SERC business;
- Provides a security awareness training program to increase awareness; and
- Provides project management and deployment of technical solutions.

The Advanced Analytics function leverages information as a strategic asset. Data is critical to SERC's continued success, deepening relationships with stakeholders, and providing meaningful analysis of risk areas across the SERC Region. Advanced Analytics executes the following functions:

- Manage usability and integrity of data;
- Evaluation of data to determine risk;
- Visualization and reporting of data;
- Insight development; and
- Calculation of operations metrics for SERC.

SERC supports the NERC Project Management Office (PMO) in its efforts to provide technology tools across the ERO Enterprise. SERC's budget assumes the availability of new and existing technology tools from the PMO and other sources. If the required technology tools are not available as planned, SERC could incur additional costs to ensure fulfillment of its core responsibilities.

NERC and the Regional Entities will collaborate to refine existing strategies, governance, and procurement practices applicable to the development, operation, and maintenance of enterprise architecture and software and data systems supporting both NERC and Regional Entity operations. NERC's BP&B will include ongoing funding support for the development, operation, and maintenance of NERC and Regional Entity-approved enterprise applications. Enterprise application funding in any given year will be subject to the budget and funding limits set forth in NERC's approved BP&B.

2022 Key Assumptions

The 2022 key assumptions for the Advanced Analytics and IT program are as follows:

- SERC will continue to evaluate and consider shared ERO services and partnerships.
- SERC will continue to purchase and maintain a hardware and software lifecycle necessary to conduct business.
- SERC will continue utilizing secure third-party hosting centers.
- SERC will continue to support the ERO's Cybersecurity Strategy objectives and initiatives.
- SERC will continue to assess, enhance, and strengthen SERC's security posture.

2022 Goals and Key Deliverables

The 2022 goals and deliverables for the Advanced Analytics and IT program are as follows:

- Improve the capabilities of SERC's Business Intelligence Center (BIC) to include internally focused operations reporting;
- Update and consolidate SERC committee and reliability portals, as the compliance portal is phased out to continue to provide the remaining functionality;
- Support the deployment of Align;
- Upgrade IT infrastructure per lifecycle management;
- Implement a multi-year plan that implements IT and Security NIST Cybersecurity framework and strategy;
- Implement a multi-year plan to integrate a Data Management framework;
- Improve cyber and physical security controls to defend against emerging threats;
- Formalize and define IT and Security policies, processes and procedures; and
- Implement new ERO-sponsored security and IT consolidation efforts.

Resource Requirements

Personnel

SERC has increased staffing levels in the Advanced Analytics and IT and Security departments to support the overall IT strategy around improved security and program management and analytics. The additional personnel will help drive a stronger and more robust internal IT team, while reducing the heavy reliance on external IT contractors. This results in an increase of 3.5 FTEs in these departments

Contractors and Consultants

The 2022 budget decreased as contractor support for IT staff transitioned to FTEs.

Office Costs

The 2022 budget for the Advanced Analytics and IT program is increasing due to planned activity around replacement or addition of computers, hardware equipment, tools, and software licenses. Some expenses are directly due to increase in staff or lifecycle management projects.

Human Resources

Program Scope and Functional Description

The SERC Human Resources function provides the organization with structure and the ability to meet business needs through managing our most valuable resources— our employees. The Human Resources department is responsible for a variety of essential functions:

- Strategic and succession planning across all areas of human resources.
- Recruitment and retention, hiring for cultural fit, employee relations, performance management, training and professional development and employee engagement.
- Compliance with state and federal laws to minimize organizational liability.
- Analysis and administration of competitive compensation and total rewards programs.
- Management of payroll, Human Resource Information Systems, and employee benefits administration.

2022 Key Assumptions

The 2022 key assumptions for the Human Resources function are as follows:

- SERC assumes a 5% vacancy rate to total Personnel Expenses.
- SERC will provide competitive compensation and benefits packages.
- SERC will ensure that staff attains and maintains elevated professional credentials to remain a leader in the industry.
- SERC will provide a Board-approved merit salary increase. The salary expense budget for all program areas reflects this assumption.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the Human Resources department are as follows:

- Promote employee engagement and empowerment;
- Attract, develop, and retain highly competent and motivated staff;
- Review compensation and benefits to ensure organization and industry competitiveness;
- Create growth, training and development opportunities for staff
- Promote a diverse and inclusive workplace; and
- Lead efforts to keep SERC a highly desirable place to work.

Resource Requirements

Personnel

The number of FTEs assigned to the Human Resources program is consistent with 2021.

Contractors and Consultants

The 2022 budget includes contractor support for leadership development and staff training.

Finance and Accounting

Program Scope and Functional Description

The SERC Finance and Accounting department provides accounting, analytical, and treasury services for SERC by performing the following functions:

- Develop SERC's BP&B and provide ongoing financial analysis regarding expenditures and forecasts;
- Prepare monthly, quarterly, and annual financial statements;
- Review and refine accounting policies, procedures, and internal fiscal controls to support the changing business environment;
- Coordinate with external auditors to ensure timely completion of the annual audit;
- Prepare and file required federal and state tax returns;
- Maintain banking relationships and manage cash flow and investments; and
- Support the ERO's funding process by annually collecting NEL data as mandated by FERC;
- Work with the ERO Finance Working Group to provide consistent reporting throughout NERC and the Regions; and
- Manage accounts payable, accounts receivable, and fixed assets.

2022 Key Assumptions

The 2022 key assumptions for the Finance and Accounting function are as follows:

- Current accounting systems and controls are effective.
- There are no major changes in applicable accounting regulations.

2022 Goals and Key Deliverables

The 2022 goals and key deliverables for the SERC Finance and Accounting department are as follows:

- Allocate financial resources in a manner that best promotes the security and reduction of risk to the BPS;
- Identify and prioritize opportunities, and create efficiency through new processes, procedures, and technology;
- Provide timely, relevant, and accurate reporting and financial analysis to SERC management, the FAC, and the Board; and
- Ensure SERC has effective financial controls and exercises fiscal prudence.

Resource Requirements

Personnel

The number of FTEs assigned to the Finance and Accounting program is consistent with 2021.

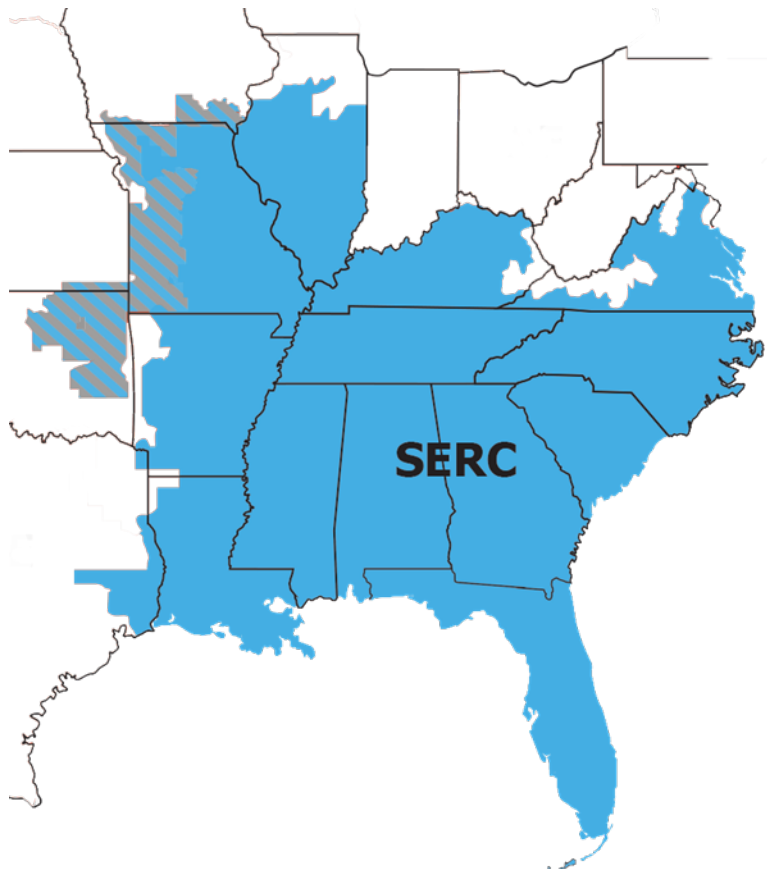
Corporate Services Program Budget Detail

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
CORPORATE SERVICES					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Funding					
Statutory Funding					
SERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Statutory Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	13,500	13,500	-	-
Interest	-	-	-	-	-
Total Funding (A)	\$ -	\$ 13,500	\$ 13,500	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 5,351,661	\$ 5,388,242	\$ 36,581	\$ 5,861,951	\$ 510,290
Payroll Taxes	371,088	374,349	3,261	349,293	(21,795)
Benefits	835,659	820,085	(15,574)	894,622	58,963
Retirement Costs	687,877	693,457	5,580	753,103	65,226
Total Personnel Expenses	\$ 7,246,285	\$ 7,276,133	\$ 29,848	\$ 7,858,969	\$ 612,684
Meeting Expenses					
Meetings & Conference Calls	\$ 221,104	\$ 187,804	\$ (33,300)	\$ 268,554	\$ 47,450
Travel	256,035	156,044	(99,991)	232,675	(23,360)
Total Meeting Expenses	\$ 477,139	\$ 343,848	\$ (133,291)	\$ 501,229	\$ 24,090
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 1,499,791	\$ 1,475,091	\$ (24,700)	\$ 1,068,874	\$ (430,917)
Office Rent	823,200	823,200	-	840,067	16,867
Office Costs	1,019,812	940,611	(79,201)	1,104,187	84,375
Professional Services	511,400	532,560	21,160	501,360	(10,040)
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 3,854,203	\$ 3,771,462	\$ (82,741)	\$ 3,514,488	\$ (339,715)
Total Direct Expenses	\$ 11,577,627	\$ 11,391,443	\$ (186,184)	\$ 11,874,686	\$ 297,059
Indirect Expenses	\$ (11,577,627)	\$ (11,391,443)	\$ 186,184	\$ (11,874,686)	\$ (297,059)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Assets	\$ -	\$ 13,500	\$ 13,500	\$ -	\$ -
Fixed Assets, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (B+C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ -	\$ 13,500	\$ 13,500	\$ -	\$ -
FTEs	32.60	32.15	(0.45)	35.75	3.15

Table A-12. Corporate Services Budget Detail

Section B – Supplemental Financial Information

2022 Business Plan and Budget



Section B – Supplemental Financial Information

Working Capital and Assessment Stabilization Reserve Analysis

Reserve Analysis			
STATUTORY			
	Total Reserves	Working Capital Reserve	Assessment Stabilization Reserve ¹
Beginning Reserves, January 1, 2021	\$ 7,676,396	\$ 3,131,396	\$ 4,545,000
Plus: 2020 Funding (form Load-Serving Entities (LSE) or desgnees)	\$ 23,513,886	\$ 23,513,886	\$ -
Plus: 2021 Other funding sources	117,500	117,500	-
Penalties released from Assessment Stabilization Reserve in 2021	-	1,180,000	(1,180,000)
Penalty Sanctions January 1 - June 30, 2021	-	-	-
Less: 2021 Projected expenses & capital expenditures	(25,829,079)	(25,829,079)	-
Projected Reserves, December 31, 2021	\$ 5,478,703	\$ 2,113,703	\$ 3,365,000
Targeted Reserve, December 31, 2022	\$ 3,765,377	\$ 1,600,377	\$ 2,165,000
Less: Projected Reserves, December 31, 2021	(5,478,703)	(2,113,703)	(3,365,000)
Increase/(decrease) to 2022 Assessments	\$ (1,713,326)	\$ (513,326)	\$ (1,200,000)
2022 Expenses and Capital Expenditures	\$ 26,708,260		
Less: Penalties released from Assessment Stabilization Reserve	(1,200,000)		
Adjustment to achieve targeted Working Capital Reserve	(513,326)		
Less: Other funding sources	(196,000)		
2022 SERC Assessment	\$ 24,798,934		

¹ Penalty sanctions are added to the Assessment Stabilization Reserve upon approval of the enforcement action by FERC, and released to offset future assessments, as approved by SERC's Board of Directors. In accordance with this procedure, a \$35,000 penalty was recorded in the Assessment Stabilization Reserve in 2020 but the cash payment was not received until January 2021.

Table B-1. Working Capital Reserve Analysis 2021- 2022

Explanation of the Working Capital Reserve

Pursuant to SERC's Cash Reserves Policy, as approved by the Board on June 26, 2019, SERC maintains a Working Capital Reserve to satisfy cash flow needs for daily operations, as well as for contingencies that were not anticipated at the time the BP&B was prepared. The policy provides for a working capital target of up to 10% of the annual budget. The targeted Working Capital Reserve included in SERC's 2022 BP&B is \$1,600,377. SERC reduced the 2022 ERO Assessments by \$513,326 to adjust its Working Capital Reserve to the targeted amount.

Explanation of the Assessment Stabilization Reserve

Pursuant to SERC's Cash Reserves Policy, SERC maintains an Assessment Stabilization Reserve to mitigate annual assessment volatility. With NERC and FERC approval, Penalty sanctions are added to the reserve, and released to offset assessments in future years. SERC is requesting to place \$765,000 of Penalty sanctions received between July 1, 2020 and June 30, 2021, into the Assessment Stabilization Reserve, and to release \$1,200,000 from the Assessment Stabilization Reserve to offset 2022 SERC Assessments.

Breakdown by Statement of Activity Sections

The following detailed schedules support the Statement of Activities and Capital Expenditures, page 11, of the 2022 BP&B. All significant variances have been disclosed by program area on the preceding pages.

Penalty Sanctions

All penalty monies received between July 1, 2020 and June 30, 2021, are detailed below, including the amount and date received.

Pursuant to the NERC ROP Section 1107.4, SERC is requesting an exception to NERC ROP 1107.2. *All funds from financial Penalties assessed in the United States received by the entity initiating the compliance monitoring and enforcement process shall be applied as a general offset to the entity's budget requirements for the subsequent fiscal year, if received by July 1, or for the second subsequent fiscal year, if received on or after July 1.* Specifically, SERC is requesting an exception in order to place \$765,000 of Penalty sanctions received between July 1, 2020 and June 30, 2021, into the Assessment Stabilization Reserve, and to release \$1,200,000 from the Assessment Stabilization Reserve to offset 2022 SERC Assessments.

Allocation Method: Penalty sanctions released to offset 2022 assessments have been allocated to the following statutory programs to reduce assessments: Reliability Standards, Compliance Monitoring and Enforcement, RAPA, Training, Education and Stakeholder Outreach, and SAIS. Penalty sanctions are allocated based upon the number of FTEs in the program divided by the aggregate total FTEs in the programs receiving the allocation.

Table B-2 lists all penalties, including date received and amount, received prior to June 30, 2021.

Penalty Sanctions Received on or Prior to June 30, 2021			
Payment	Date Received	Amount Received	
Penalty payment 1	10/13/2020	\$	85,000
Penalty payment 2	10/13/2020		90,000
Penalty payment 3	12/1/2020		430,000
Penalty payment 4	12/1/2020		125,000
Penalty payment 5	1/13/2021		35,000
Total Penalties Received		\$	765,000

Table B-2. Penalty Sanctions Received

Table B-3 Supplemental Funding

Other Revenue Breakdown By Program (Excludes Assessments & Penalty Sanctions)	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget
Reliability Standards				
Workshops & Miscellaneous	\$ 200	\$ -	\$ 183	\$ (17)
Interest	\$ 223	\$ 221	\$ 220	\$ (3)
Total	\$ 423	\$ 221	\$ 403	\$ (20)
Compliance Monitoring, Enforcement & Org. Registration				
Workshops & Miscellaneous	\$ 32,090	\$ 6,000	\$ 29,480	\$ (2,610)
Interest	22,322	22,339	22,176	(146)
Total	\$ 54,412	\$ 28,339	\$ 51,656	\$ (2,756)
Reliability Assessment and Performance Analysis				
Workshops & Miscellaneous	\$ 2,524	\$ -	\$ 2,308	\$ (216)
Interest	2,804	2,790	2,769	(35)
Total	\$ 5,328	\$ 2,790	\$ 5,077	\$ (251)
Training, Education and Stakeholder Outreach				
Workshops & Miscellaneous	\$ 139,185	\$ 68,000	\$ 132,930	\$ (6,255)
Interest	3,539	3,321	3,516	(23)
Total	\$ 142,724	\$ 71,321	\$ 136,446	\$ (6,278)
Situation Awareness and Infrastructure Security				
Workshops & Miscellaneous	\$ 1,000	\$ -	\$ 1,099	\$ 99
Interest	1,113	1,328	1,319	206
Total	\$ 2,113	\$ 1,328	\$ 2,418	\$ 305
Corporate Services				
Workshops & Miscellaneous	\$ -	\$ 13,500	\$ -	\$ -
Interest	-	-	-	-
Total	\$ -	\$ 13,500	\$ -	\$ -
Total Outside Funding	\$ 205,000	\$ 117,499	\$ 196,000	\$ (9,000)

Table B-3. Supplemental Funding

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

The decrease in Workshops and Miscellaneous funding in 2022 from the 2021 budget is due to anticipated reduced in-person attendance.

Table B-4 Personnel Expenses

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance		
				2021 Budget v 2022 Budget	Variance %	
Salaries						
Total Salaries	\$ 15,157,961	\$ 15,418,809	\$ 16,239,814	\$ 1,081,853	7.1%	
Total Payroll Taxes	\$ 1,057,723	\$ 1,076,489	\$ 971,965	\$ (85,758)	(8.1%)	
Total Benefits	\$ 1,920,040	\$ 1,843,802	\$ 1,981,828	\$ 61,788	3.2%	
Total Retirement	\$ 1,924,856	\$ 1,958,019	\$ 2,061,442	\$ 136,586	7.1%	
Total Personnel Costs	\$ 20,060,580	\$ 20,297,119	\$ 21,255,049	\$ 1,194,469	6.0%	
FTEs	100.0	100.0	104.0	4.0	4.0%	
Cost per FTE						
Salaries	\$ 151,580	\$ 154,188	\$ 156,152	\$ 4,572	3.0%	
Payroll Taxes	10,577	10,765	9,346	(1,231)	(11.6%)	
Benefits	19,200	18,438	19,056	(144)	(0.8%)	
Retirement	19,249	19,580	19,822	573	3.0%	
Total Cost per FTE	\$ 200,606	\$ 202,971	\$ 204,375	\$ 3,770	1.9%	

Table B-4. Personnel Expenses

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

The budget reflects a Board-approved merit increase and an increase in health insurance premiums. A vacancy rate of 5% has been applied to all Personnel Expenses.

The combination of one incremental FTE and a shift toward in-house versus third party resources is driving increases in Salaries, Benefits and Retirement expenses.

Table B-5 Meeting Expenses

Meeting, Conference & Travel Expense	Budget	Projection	Budget	Variance	
	2021	2021	2022	2021 Budget v 2022 Budget	Variance %
Meeting & Conference Expenses	\$ 415,308	\$ 352,268	\$ 443,307	\$ 27,999	6.7%
Travel Expenses	\$ 985,632	\$ 649,510	\$ 855,340	\$ (130,292)	(13.2%)
Total Meeting, Conference & Travel Expenses	\$ 1,400,940	\$ 1,001,778	\$ 1,298,647	\$ (102,293)	(7.3%)

Table B-5. Meeting Expenses**Explanation of Significant Variances – 2022 Budget versus 2021 Budget**

The 2022 budget includes a slight increase in Meeting Expenses related to Board and Committee governance activities.

Travel expenses reflect a substantial decrease due to a concerted focus on maximizing online meeting technology when appropriate and efficiencies realized in SERC's Compliance Monitoring audit process, which includes utilizing a hybrid mix of on-site and virtual monitoring personnel.

Table B-6 Consultants and Contracts

Consultants and Contracts	Budget	Projection	Budget	Variance	
	2021	2021	2022	2021 Budget v 2022 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	-	-	-	-	
Reliability Assessment and Performance Analysis	170,000	170,000	212,500	42,500	25.0%
Training and Outreach	94,345	94,345	96,570	2,225	2.4%
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	1,499,791	1,475,091	1,068,874	(430,917)	(28.7%)
Total Consultants and Contracts	\$ 1,764,136	\$ 1,739,436	\$ 1,377,944	\$ (386,192)	(21.9%)

Table B-6. Consultants and Contracts

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

RAPA – Contractor support is included for a probabilistic assessment performed through the Resource Adequacy Working Group, and for additional special reliability assessments of the SERC footprint.

Corporate Services:

- **General & Administrative** – Increase due to investment in staff development initiatives.
- **IT** – Reduced reliance on third party resources is driving the reduction to contractor and consulting expenses.

Table B-7 Office Rent

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Office Rent	\$ 823,200	\$ 823,200	\$ 840,067	\$ 16,867	2.0%
Utilities	-	-	-	-	0.0%
Maintenance	-	-	-	-	0.0%
Total Office Rent	\$ 823,200	\$ 823,200	\$ 840,067	\$ 16,867	2.0%

Table B-7. Office Rent

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Increase in building's operational Common Area Maintenance expenses.

Table B-8 Office Costs

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Telephone	\$ 158,201	\$ 156,601	\$ 160,420	\$ 2,219	1.4%
Office Supplies	96,590	96,590	97,408	818	0.8%
Computer Supplies and Maintenance	-	-	-	-	-
Computers and Supplies	87,000	87,000	70,000	(17,000)	(19.5%)
Software	457,966	390,966	607,233	149,267	32.6%
Network Supplies	75,000	75,000	42,000	(33,000)	(44.0%)
Publications & Subscriptions	11,980	22,080	20,420	8,440	70.5%
Dues	36,486	31,585	29,713	(6,773)	(18.6%)
Postage	600	600	-	(600)	(100.0%)
Express Shipping	7,400	7,400	8,000	600	8.1%
Copying	6,000	6,000	6,000	-	0.0%
Equipment Repair/Service Contracts	36,000	36,000	36,000	-	0.0%
Bank Charges	3,000	3,000	3,000	-	0.0%
Taxes	26,600	26,600	25,000	(1,600)	(6.0%)
Merchant Credit Card Fees	12,000	12,000	12,000	-	0.0%
Insurance - Commercial	54,000	54,000	54,000	-	0.0%
Total Office Costs	\$ 1,068,823	\$ 1,005,422	\$ 1,171,194	\$ 102,371	9.6%

Table B-8. Office Costs

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Computer Supplies and Maintenance – Increase is due to additional software license expense associated with the recent member portal replacement, and SERC's overall strategy to continue strengthening cyber and physical security controls. This is partially offset by reduced computer and network supply purchases.

Table B-9 Professional Services

Professional Services	Budget	Projection	Budget	Variance	
	2021	2021	2022	2021 Budget v 2022 Budget	Variance %
Outside Legal	\$ 122,400	\$ 122,400	\$ 72,400	\$ (50,000)	(40.8%)
Independent Director Fees	\$ 350,000	\$ 376,000	\$ 394,800	\$ 44,800	12.8%
Accounting & Auditing Fees	39,000	34,160	34,160	(4,840)	(12.4%)
Total Services	\$ 511,400	\$ 532,560	\$ 501,360	\$ (10,040)	(2.0%)

Table B-9. Professional Services

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

Outside Legal expenses are decreasing based on historical norms. Independent Director Fees have increased to reflect actual cost.

Table B-10 Miscellaneous

Miscellaneous Expenses	Budget	Projection	Budget	Variance	
	2021	2021	2022	2021 Budget v 2022 Budget	Variance %
Miscellaneous	\$ -	\$ -	\$ -	\$ -	-
Total Miscellaneous Expenses	\$ -	\$ -	\$ -	\$ -	-

Table B-10. Miscellaneous

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

There are no costs budgeted for these items in 2021 or 2022.

Table B-11 Non-Operating Expenses

Other Non-Operating Expenses	Budget	Projection	Budget	Variance	
	2021	2021	2022	2021 Budget v 2022 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment	-	-	-	-	-
Office Relocation	-	-	-	-	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

Table B-11. Other Non-Operating Expenses

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

There are no costs budgeted for these items in 2021 or 2022.

Table B-12 Fixed Assets

Fixed Assets	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget	Budget v 2022 Variance %
Computer & Software CapEx	\$ 200,000	\$ 429,564	\$ 264,000	\$ 64,000	32.0%
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
	\$ 200,000	\$ 429,564	\$ 264,000	\$ 64,000	32.0%

Table B-12. Fixed Assets

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

An overall Fixed Asset increase of \$64,000 was due to firewall replacements and new corporate services software.

Table B-13 2023 and 2024 Projections

Statement of Activities and Capital Expenditures								
2022 Budget & Projected 2023 and 2024 Budgets								
Statutory								
	2022	2023	\$ Change	% Change	2024	\$ Change	% Change	
	Budget	Projection	22 v 23	22 v 23	Projection	23 v 24	23 v 24	
Funding								
Statutory Funding								
SERC Assessments	\$ 24,798,934	\$ 26,024,597	\$ 1,225,663	4.9%	\$ 27,229,040	\$ 1,204,443	4.6%	
Penalties Released*	1,200,000	1,425,000	225,000	18.8%	950,000	(475,000)	(33.3%)	
Total Statutory Funding	\$ 25,998,934	\$ 27,449,597	\$ 1,450,663	5.6%	\$ 28,179,040	\$ 729,443	2.7%	
Membership Fees	\$ -	\$ -	\$ -		\$ -	\$ -		
Workshops & Miscellaneous	166,000	166,000	-	0.0%	166,000	-	0.0%	
Interest	30,000	30,000	-	0.0%	30,000	-	0.0%	
Total Funding (A)	\$ 26,194,934	\$ 27,645,597	\$ 1,450,663	5.5%	\$ 28,375,040	\$ 729,443	2.6%	
Expenses								
Personnel Expenses								
Salaries	\$ 16,239,814	\$ 16,987,008	\$ 747,194	4.6%	\$ 17,496,619	\$ 509,610	3.0%	
Payroll Taxes	971,965	1,016,675	44,710	4.6%	1,047,176	30,500	3.0%	
Benefits	1,981,828	2,072,992	91,164	4.6%	2,135,182	62,190	3.0%	
Retirement Costs	2,061,442	2,156,268	94,826	4.6%	2,220,956	64,688	3.0%	
Total Personnel Expenses	\$ 21,255,049	\$ 22,232,944	\$ 977,895	4.6%	\$ 22,899,933	\$ 666,988	3.0%	
Meeting Expenses								
Meetings & Conference Calls	\$ 443,307	\$ 443,307	\$ -	0.0%	\$ 447,740	\$ 4,433	1.0%	
Travel	855,340	855,340	-	0.0%	863,893	8,553	1.0%	
Total Meeting Expenses	\$ 1,298,647	\$ 1,298,647	\$ -	0.0%	\$ 1,311,633	\$ 12,986	1.0%	
Operating Expenses, excluding Depreciation								
Consultants & Contracts	\$ 1,377,944	1,377,944	\$ -	0.0%	1,391,723	\$ 13,779	1.0%	
Office Rent	840,067	848,468	8,401	1.0%	856,952	8,485	1.0%	
Office Costs	1,171,193	1,171,193	-	0.0%	1,182,905	11,712	1.0%	
Professional Services	501,360	516,401	15,041	3.0%	531,893	15,492	3.0%	
Miscellaneous	-	-	-		-	-		
Total Operating Expenses	\$ 3,890,564	\$ 3,914,005	\$ 23,441	0.6%	\$ 3,963,474	\$ 49,468	1.3%	
Total Direct Expenses	\$ 26,444,260	\$ 27,445,597	\$ 1,001,337	3.8%	\$ 28,175,040	\$ 729,443	2.7%	
Indirect Expenses	\$ -	\$ -	\$ -		\$ -	\$ -		
Other Non-Operating Expenses	\$ -	\$ -	\$ -		\$ -	\$ -		
Total Expenses (B)	\$ 26,444,260	\$ 27,445,597	\$ 1,001,337	3.8%	\$ 28,175,040	\$ 729,443	2.7%	
Change in Assets	\$ (249,326)	\$ 200,000	\$ 449,326	(180.2%)	\$ 200,000	\$ -	0.0%	
Fixed Assets								
Computer & Software CapEx	264,000	200,000	(64,000)	(24.2%)	200,000	-	0.0%	
Furniture & Fixtures CapEx	-	-	-		-	-		
Equipment CapEx	-	-	-		-	-		
Leasehold Improvements	-	-	-		-	-		
Allocation of Fixed Assets	-	-	-		-	-		
Incr(Dec) in Fixed Assets (C)	\$ 264,000	\$ 200,000	\$ (64,000)	(24.2%)	\$ 200,000	\$ -	0.0%	
TOTAL BUDGET (B+C)	\$ 26,708,260	\$ 27,645,597	\$ 937,337	3.5%	\$ 28,375,040	\$ 729,443	2.6%	
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (513,326)	\$ -	\$ 513,326	(100.0%)	\$ -	\$ -		
FTEs	104.0	106.0	2	1.9%	106.0	-	0.0%	

* Penalties Released in the current year reflects the designated amount of funds released from the Assessment Stabilization Reserve (ASR) to offset U.S. assessments as approved by the SERC Board of Directors and FERC. Actual penalties invoiced in the current reporting year are shown as an increase in the ASR on the reserve summary table and will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

Table B-13. Budget 2022 Compared with 2022-2023 Projections

Explanation of 2023 and 2024 Budget Projections

Personnel Expenses

- Addition of two FTEs in 2023 to support continued implementation of enhanced data security initiatives;
- Annual merit pay increases in 2023 and 2024
- Annual increase in insurance premiums; and
- A continuation of a 5% vacancy rate.

Meeting Expenses

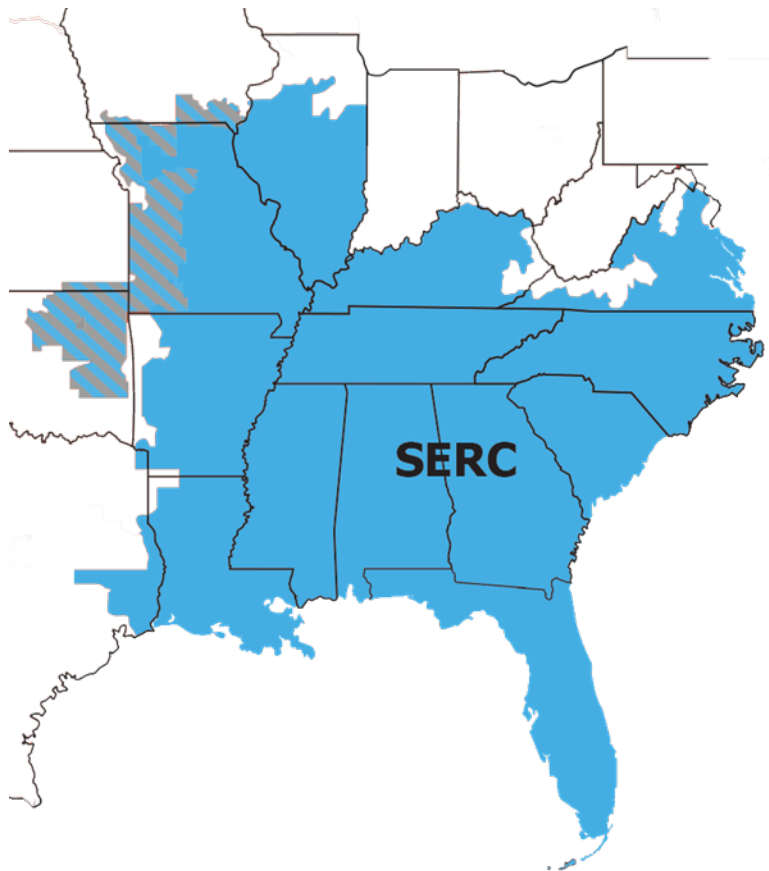
- Meetings and travel costs include a 1% inflationary increase in 2024.

Operating Expenses

- Modest increase in office lease operating costs.
- Professional services include a 3% increase in both 2023 and 2024 associated with Independent Director Fees.
- Other operating expenses remain flat for 2023 and include a 1% inflationary increase in 2024.

Section C – Non-Statutory Activities

2022 Business Plan and Budget



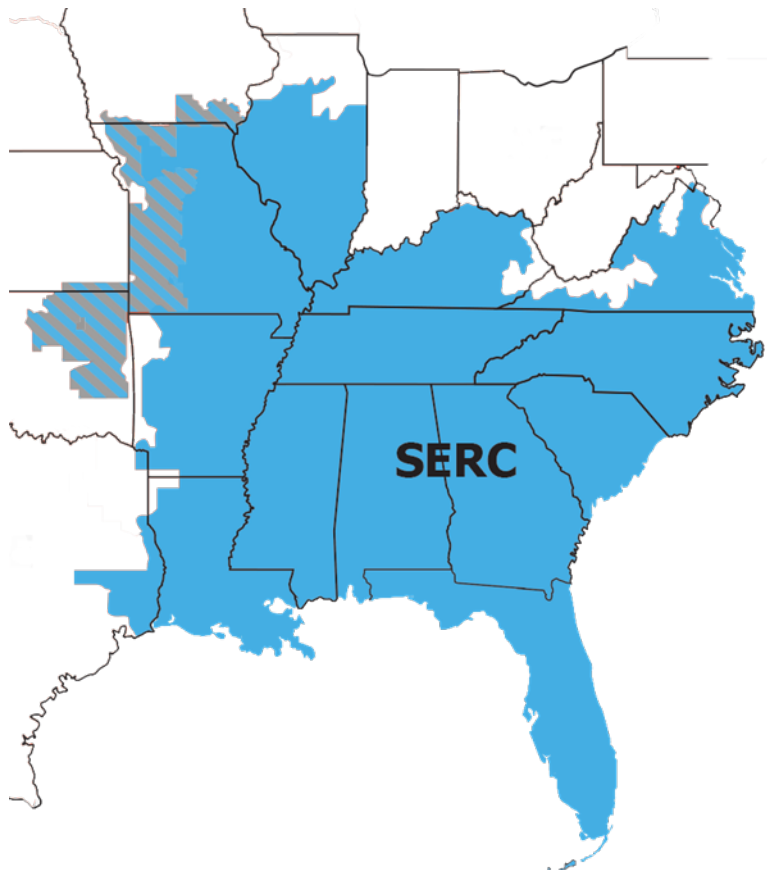
Section C – Non-Statutory Activities

2022 Non-Statutory Business Plan and Budget

At present, SERC does not provide any non-statutory functions; therefore, Section C is not applicable at this time. However, SERC may in the future consider providing non-statutory functions from time to time, as appropriate and as permitted by its Board and applicable statutes and regulations.

Section D – Additional Consolidated Financial Statements

2022 Business Plan and Budget



Consolidated Financial Statement of Activities by Program, Statutory and Non-Statutory

Statement of Activities and Capital Expenditures by Program	Total	Statutory Total	Non-Statutory Total	Statutory Total	Reliability Standards	Compliance Monitoring and Enforcement; Organization Registration and Certification	Reliability Assessment and Performance Analysis	Training and Outreach	Situation Awareness and Infrastructure Security	Corporate Services
Funding										
Statutory Funding										
SERC Assessments	\$ 24,798,934	\$ 24,798,934	\$ -	\$ 24,798,934	\$ 207,642	\$ 18,220,737	\$ 2,567,440	\$ 2,654,111	\$ 1,149,004	\$ -
Penalties Released	1,200,000	1,200,000	-	1,200,000	8,791	887,034	110,769	140,659	52,747	-
Total Statutory Funding	\$ 25,998,934	\$ 25,998,934	\$ -	\$ 25,998,934	\$ 216,433	\$ 19,107,771	\$ 2,678,209	\$ 2,794,770	\$ 1,201,751	\$ -
Non-statutory Funding										
Workshops & Miscellaneous	\$ 166,000	\$ 166,000	\$ -	\$ 166,000	\$ 183	\$ 29,480	\$ 2,308	\$ 132,930	\$ 1,099	\$ -
Interest	30,000	30,000	-	30,000	220	22,176	2,769	3,516	1,319	-
Total Funding (A)	\$ 26,194,934	\$ 26,194,934	\$ -	\$ 26,194,934	\$ 216,836	\$ 19,159,427	\$ 2,683,286	\$ 2,931,216	\$ 1,204,169	\$ -
Expenses										
Personnel Expenses										
Salaries	\$ 16,239,814	\$ 16,239,814	\$ -	\$ 16,239,814	\$ 100,868	\$ 7,811,906	\$ 977,497	\$ 980,344	\$ 507,248	\$ 5,861,951
Payroll Taxes	971,965	971,965	-	971,965	6,052	468,714	58,650	58,821	30,435	349,293
Benefits	1,981,828	1,981,828	-	1,981,828	10,043	825,332	103,741	98,832	49,258	894,622
Retirement Costs	2,061,442	2,061,442	-	2,061,442	12,694	984,930	123,207	123,580	63,928	753,103
Total Personnel Expenses	\$ 21,255,049	\$ 21,255,049	\$ -	\$ 21,255,049	\$ 129,657	\$ 10,090,882	\$ 1,263,095	\$ 1,261,577	\$ 650,869	\$ 7,858,969
Meeting Expenses										
Meetings & Conference Calls	\$ 443,307	\$ 443,307	\$ -	\$ 443,307	\$ -	\$ 12,600	\$ 42,000	\$ 120,153	\$ -	\$ 268,554
Travel	855,340	855,340	-	855,340	2,500	419,975	72,000	85,690	42,500	232,675
Total Meeting Expenses	\$ 1,298,647	\$ 1,298,647	\$ -	\$ 1,298,647	\$ 2,500	\$ 432,575	\$ 114,000	\$ 205,843	\$ 42,500	\$ 501,229
Operating Expenses, excluding Depreciation										
Consultants & Contracts	\$ 1,377,944	\$ 1,377,944	\$ -	\$ 1,377,944	\$ -	\$ -	\$ 212,500	\$ 96,570	\$ -	\$ 1,068,874
Office Rent	840,067	840,067	-	840,067	-	-	-	-	-	840,067
Office Costs	1,171,193	1,171,193	-	1,171,193	-	38,580	25,780	1,817	829	1,104,187
Professional Services	501,360	501,360	-	501,360	-	-	-	-	-	501,360
Miscellaneous	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	\$ 3,890,564	\$ 3,890,564	\$ -	\$ 3,890,564	\$ -	\$ 38,580	\$ 238,280	\$ 98,387	\$ 829	\$ 3,514,488
Total Direct Expenses	\$ 26,444,260	\$ 26,444,260	\$ -	\$ 26,444,260	\$ 132,157	\$ 10,562,037	\$ 1,615,375	\$ 1,565,807	\$ 694,198	\$ 11,874,686
Indirect Expenses	\$ -	\$ (0)	\$ -	\$ (0)	\$ 86,994	\$ 8,777,698	\$ 1,096,125	\$ 1,391,905	\$ 521,964	\$ (11,874,686)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 26,444,260	\$ 26,444,260	\$ -	\$ 26,444,260	\$ 219,151	\$ 19,339,735	\$ 2,711,500	\$ 2,957,712	\$ 1,216,162	\$ -
Change in Assets	\$ (249,326)	\$ (249,326)	\$ -	\$ (249,326)	\$ (2,315)	\$ (180,308)	\$ (28,214)	\$ (26,496)	\$ (11,993)	\$ -
Depreciation										
Computer & Software CapEx	\$ 264,000	\$ 264,000	\$ -	\$ 264,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 264,000
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	1,934	195,148	24,369	30,945	11,604	(264,000)
Fixed Assets, excluding Right of Use Assets (C)	\$ 264,000	\$ 264,000	\$ -	\$ 264,000	\$ 1,934	\$ 195,148	\$ 24,369	\$ 30,945	\$ 11,604	\$ -
TOTAL BUDGET (B+C)	\$ 26,708,260	\$ 26,708,260	\$ -	\$ 26,708,260	\$ 221,085	\$ 19,534,883	\$ 2,735,869	\$ 2,988,657	\$ 1,227,766	\$ -
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (513,326)	\$ (513,326)	\$ -	\$ (513,326)	\$ (4,249)	\$ (375,456)	\$ (52,583)	\$ (57,441)	\$ (23,597)	\$ -
FTEs	104.0	104.0	-	104.0	0.5	50.5	6.3	8.0	3.0	35.8

Table D-1. Consolidated Statements of Activities by Program, Statutory and Non-Statutory

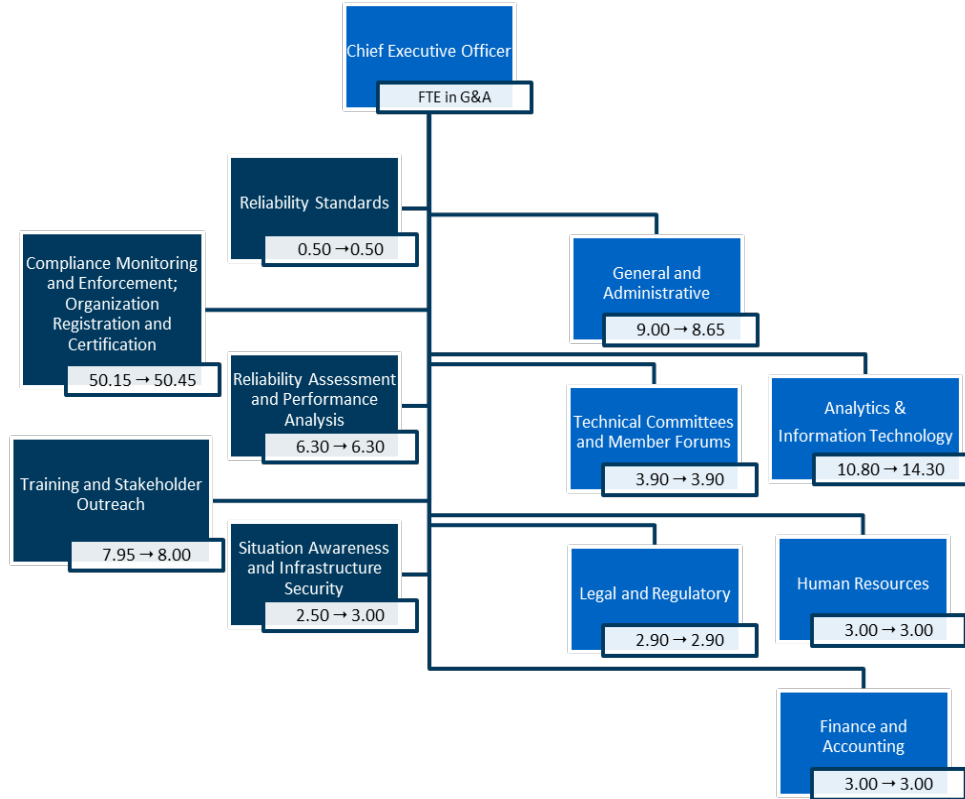
Statement of Financial Position

Statement of Financial Position			
2020 Audited, 2021 Projection, and 2022 Budget			
STATUTORY and NON-STATUTORY			
	(Per Audit)	Projected	Budget
	31-Dec-20	31-Dec-21	31-Dec-22
ASSETS			
Cash and cash equivalents	\$ 4,799,061	\$ 4,370,760	\$ 5,081,765
Investments	7,671,990	7,671,990	6,671,990
Accounts receivable, net	35,000	-	-
Prepaid expenses and other assets	317,479	250,000	250,000
Property and equipment, net	1,947,224	1,826,788	1,565,788
Total Assets	\$ 14,770,754	\$ 14,119,538	\$ 13,569,543
LIABILITIES AND NET ASSETS			
Liabilities			
Accounts payable	\$ 308	\$ 40,000	\$ 40,000
Accrued expenses	4,149,903	4,100,000	4,100,000
Deferred revenue	96,010	30,000	30,000
Other liabilities	900,913	875,913	850,913
Total Liabilities	\$ 5,147,134	\$ 5,045,913	\$ 5,020,913
Unrestricted net assets	9,623,620	9,073,625	8,548,630
Total Liabilities and Net Assets	\$ 14,770,754	\$ 14,119,538	\$ 13,569,543

Table D-2. Statement of Financial Position, Three-Year Comparison

Appendix A: Organization Chart

The SERC Organization chart shown here compares 2021 and 2022 SERC personnel counts.



2021 FTE: 100.00
2022 FTE: 104.00

■ Statutory Program Area
■ Corporate Services Program Area

Figure 2. SERC Organization Chart

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DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 7

TEXAS RELIABILITY ENTITY

PROPOSED 2022 BUSINESS PLAN AND BUDGET



2022 Business Plan and Budget

Texas Reliability Entity, Inc.

Approved by Texas RE Board of Directors

Date: May 19, 2021

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Introduction

	TOTAL RESOURCES (in whole dollars)			
	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs	66.0			
Non-statutory FTEs	-			
Total FTEs	66.0			
Statutory Expenses	\$ 16,648,613			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 16,648,613			
Statutory Inc(Dec) in Fixed Assets	\$ 512,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ 512,000			
Statutory Working Capital Requirement	\$ (1,583,498)			
Non-Statutory Working Capital Requirement				
Total Working Capital Requirement	\$ (1,583,498)			
Total Statutory Funding Requirement	\$ 15,577,115			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 15,577,115			
Statutory Funding Assessments	\$ 15,003,365			
Non-Statutory Fees	\$ -			
NEL	381,905,336	381,905,336		
NEL%	100.00%	100.00%		

Refer to Table B-1 Reserve Analysis on page 37 in Section B

Organizational Overview

Texas Reliability Entity, Inc. (Texas RE) is a Texas non-profit corporation that is the Regional Entity for the Electric Reliability Council of Texas, Inc. (ERCOT) region, pursuant to its Amended and Restated Delegation Agreement (Delegation Agreement) with North American Electric Reliability Corporation (NERC) effective January 1, 2021. Texas RE ensures the reliability of the ERCOT region bulk-power system (BPS).

The ERCOT region is the geographic area located within the state of Texas that operates under the jurisdiction of the Public Utility Commission of Texas (PUCT) and is not synchronously interconnected with any electric utilities operating outside of Texas. The ERCOT region includes approximately 90% of Texas load and 75% of the Texas land area.

Membership and Governance

Membership

Texas RE has the following six membership sectors under its Bylaws:

- System Coordination and Planning
- Transmission and Distribution
- Cooperative Utility
- Municipal Utility
- Generation
- Load-Serving and Marketing

Membership in Texas RE is voluntary and open to any entity that is a user, owner, or operator in the ERCOT region BPS, who registers with Texas RE as a member and complies with the Texas RE Bylaws requirements. There is no charge for membership with Texas RE. Any person or entity that has a direct and material interest in the BPS has a right to participate in the Texas RE Standards Development Process, even if not a Texas RE member.

Texas RE has one stakeholder committee, the Member Representatives Committee (MRC). The MRC includes representatives from members in each of the six membership sectors and provides advice and recommendations to the Board on administrative, financial, reliability-related, or any other matters, through its elected Chair and Vice Chair, who also serve as Affiliated Directors on Texas RE's Board. In addition, the MRC facilitates the Regional Standards Development Process, and coordinates the development of Regional Standards and variances with the development of continent-wide standards. A subcommittee of the MRC, the NERC Standards Review Forum (NSRF), monitors, reviews, and discusses NERC (continent-wide) Reliability Standards under development and Reliability Standards interpretation requests.

Board of Directors

Texas RE is governed by a hybrid Board of Directors (Board), comprised of the following nine individuals:

- The Texas RE President and Chief Executive Officer (CEO)
- Four Independent Directors (elected by membership)
- Two Affiliated Directors (the Chair and Vice Chair of the Member Representatives Committee)
- Chairman of the PUCT or another PUCT Commissioner designated by the Chairman, as an *ex officio* non-voting member
- Texas Public Counsel, from the Texas Office of Public Utility Counsel, as an *ex officio* non-voting member

The Board's primary role is to oversee the management of Texas RE, including assuring that Texas RE meets its requirements under the Bylaws and Delegation Agreement, and appointing a CEO to manage and be responsible for the day-to-day on-going activities of Texas RE.

Statutory Functional Scope

In accordance with its Delegation Agreement with NERC and in compliance with the NERC Rules of Procedure (NERC ROP), Texas RE performs the following statutory (or delegated) functions:

- Participation in the development of NERC Reliability Standards, or modifications thereof, and facilitation of developing needed Regional Standards or variances through Texas RE's Standards Development Process.
- Identification and registration of responsible entities with NERC and, as needed, certification of such entities within the ERCOT region.
- Monitoring and enforcement of compliance with approved NERC Reliability Standards and Regional Standards, in accordance with the NERC ROP, in the ERCOT region.
- Analysis and assessment of system events and disturbances.
- Assessment of the present and future reliability, adequacy, and security of the BPS.
- Promotion of effective training and education of personnel.
- Promotion of situation awareness and the protection of critical infrastructure.

Financial Policies

Texas RE has policies and procedures in place that address its overall financial management, including procurement and business expense reimbursement. Additionally, Texas RE has a working capital and operating reserve policy to ensure the stability of the ongoing operations of the organization. This policy is intended to provide funds for situations such as a sudden unanticipated increase in expenses, one-time unbudgeted expenses, unanticipated loss in funding, or uninsured losses.

2022 Overview of Cost Impacts

In developing the Texas RE 2022 Business Plan and Budget, Texas RE reflects the collaborative development of the Electric Reliability Organization (ERO) Enterprise Long-Term Strategy. Texas RE also seeks input from its MRC, and posts the budget for comment. Prior to obtaining final approval from its Board, Texas RE seeks NERC input and review of its annual Regional Entity Business Plan and Budget, including coordination of program requirements and any related key initiatives for the ERO Enterprise.

Overall, the Texas RE 2022 budgeted statutory expenses (\$17,160,113) increased by 20.8% from the 2021 budgeted statutory expenses (\$14,211,539). Of the \$2,949,075 increase in budget, approximately \$834,000 (28%) is for one-time expenditures associated with the relocation of Texas RE's office to new, larger space.

The 2022 statutory assessment (\$15,003,365) increased 12.4% from the 2021 assessment (\$13,343,400).

Significant statutory expense changes (including capital expenditures) include:

- Total Personnel expenses are increasing by 16.7%. Salaries expense is increasing 16.6%, which includes adding three additional Full Time Equivalents (FTEs) in 2022, all in the Compliance and Organization Registration and Certification Program, and an allowance for salary increases and promotions. Payroll taxes are increasing 18.2%. Total Benefits expense is increasing 16.2%. Health plan expense did not increase as projected in 2021; however, health plan expense is projected to increase 14% for 2022 over actual 2021 cost, which is lower than the 2021 budgeted cost. Employee Benefits include education reimbursement, relocation expenses, and training and professional development. Including these expenses in Employee Benefits is consistent with the NERC budget guidelines. Retirement costs are increasing 16.5%. All personnel-related expenses are increasing based on the additional salary expense for additional FTEs. (See CMEP program for details concerning FTE increase).
- Total Meeting and Travel expenses are increasing 9%. Meetings expense is increasing by \$36,500. The 2022 budget includes Workshop Expense for a Reliability Summit and an offsite workshop in the Training and Education Program. An annual meeting with the Texas RE Board of Directors and stakeholders is included in Meetings expense for 2022. Travel expense is remaining consistent with 2021.
- Total Operating expenses are increasing by 11.0%. The Consultants and Contracts expense is decreasing 20.5%. The 2021 budget includes search fees for two Board of Director positions, the CEO position, and three compensation studies which are not in the 2022 budget. Rent cost is increasing 36.4%. The lease for Texas RE's office space at Las Cimas expires in March 2022. New office space and a new lease has been secured effective April 1, 2022 causing an escalation in rent and utilities for 2022. The 2022 budget also includes a one-time expense of \$320,000 for costs to relocate the office and Fixed Asset additions of \$512,000 for furniture and equipment needed for the new office; these one-time costs have been allocated to the direct statutory programs on the basis of FTEs. Office cost is increasing 1.8%. Decreased costs for an external IT audit and penetration testing reduces Professional Services 1.2%.

All statutory activity in the 2022 Business Plan and Budget aligns with the ERO Enterprise Long-Term Strategy.

ERO Enterprise Model and Transformation

The vision of the ERO Enterprise, which is comprised of NERC and the six Regional Entities, is a high reliable and secure North American bulk power system (BPS). Its mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. The ERO Enterprise is a collaborative group of organizations with distinct roles between NERC and the Regional Entities. The ERO Enterprise strives for consistency where necessary, but recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. This model effectively blends a continent-wide scope with flexibility and responsiveness, and provides the resources to tackle emerging issues while simultaneously enabling innovative and distinctive approaches to reliability risks and challenges.

Within the ERO Enterprise model, NERC has unique responsibilities to oversee ERO program areas, set qualifications and expectations for the performance of delegated activities, and

assess, train, and give feedback to corresponding Regional Entity programs. The Regional Entities have a mirrored set of responsibilities, providing input into the overall development of each program area, providing training and development to meet qualifications, and ensuring delegated functions are completed. Both NERC and the Regional Entities have an obligation to meet professional standards of independence and objectivity.

As the ERO Enterprise continues to mature, the organization is working on a transformation initiative to further leverage resources, enhance communication and collaboration, and ensure grid reliability. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiatives, and the sharing of best-practices across the ERO Enterprise.

Building upon these commitments, the ERO Enterprise is now engaging in a collaborative process to accelerate its transformation through diverse activities, including ERO Enterprise-wide town halls, joint leadership training sessions, and work among ERO Enterprise Collaboration Groups.



ERO Enterprise Long-Term Strategy

NERC and the Regional Entities are continually refining their individual and collective operating and governance practices in support of strategic and operational goals and objectives that are designed to ensure the ERO fulfills its statutory obligations. This collaboration is done while acknowledging the unique differences across the Regions, and the different corporate and governance responsibilities of each entity.

In 2019, ERO Enterprise leadership came together to revise the [ERO Enterprise Long-Term Strategy](#) as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee’s (RISC’s) currently identified BPS risks. This strategy, which was approved by the NERC Board of Trustees (Board) on December 12, 2019, and reaffirmed by ERO Enterprise leadership in September 2020, includes the following strategic focus areas:

1. Expand risk-based focus in all standards, compliance monitoring, and enforcement programs;
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the RISC’s biennial [ERO Reliability Risk Priorities Report](#);
3. Build a strong, Electricity Information Sharing and Analysis Center (E-ISAC)-based security capability;
4. Strengthen engagement across the reliability and security ecosystem in North America; and
5. Capture effectiveness, efficiency, and continuous improvement opportunities.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss departmental goals and activities to ensure alignment with the long-term strategy and harmonization across the ERO Enterprise where appropriate. Program area narratives in each organization’s Business Plan and Budget may reference how activities support each of the strategic focus areas.

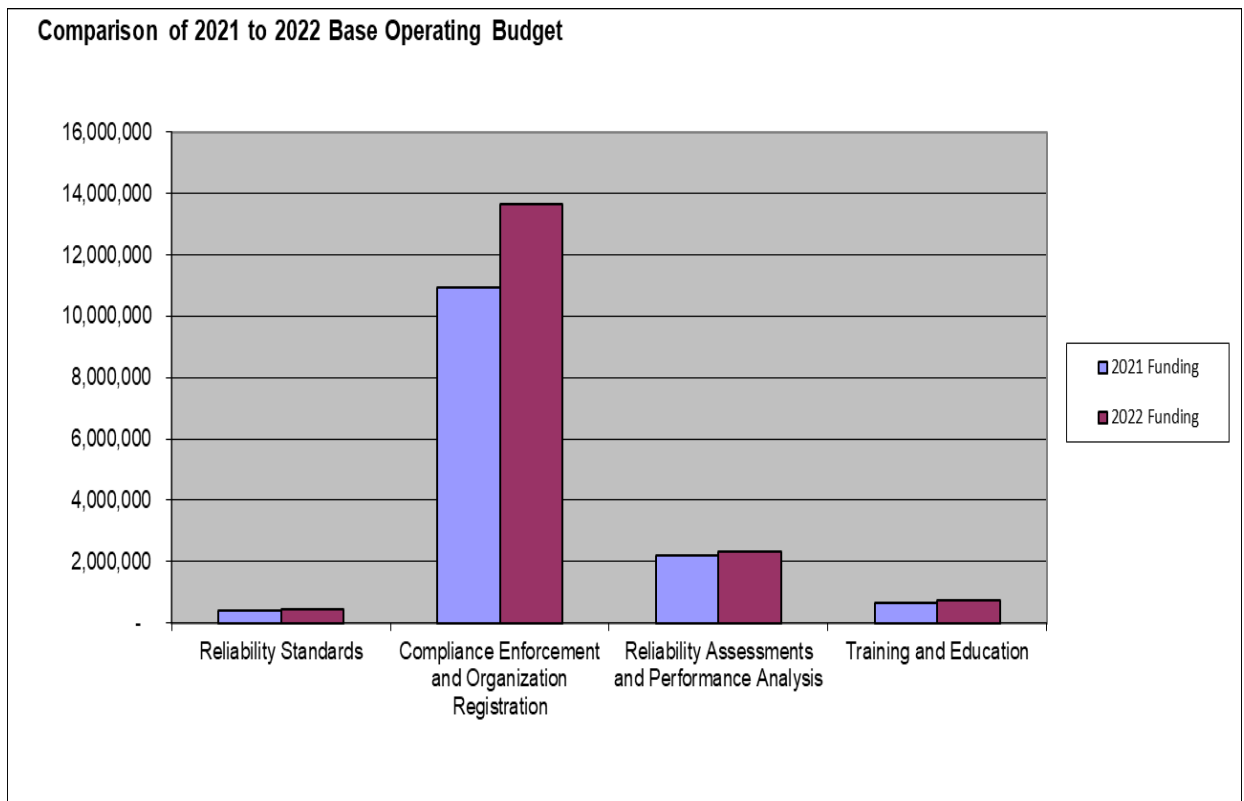
Since risks to reliability and security are fluid and can be impacted by recent events, NERC and each Regional Entity may also create annual work plan priorities that summarize the most critical goals and objectives for the year. In many cases, these work plan priorities are also used for individual, departmental, and company performance measurement.¹

¹ The [2021 ERO Work Plan Priorities](#) were approved by the Board in November 2020. NERC management and the Board evaluate annual work plan priorities throughout the year.

Summary by Program

The following table summarizes the Texas RE budget by program area.

Base Operating Budget	Budget	Projection	Budget	Variance	
	2021	2021	2022	2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ 414,169	\$ 414,169	\$ 450,580	\$ 36,411	8.8%
Compliance Enforcement and Organization Registration	10,938,214	10,938,214	13,648,328	2,710,113	24.8%
Reliability Assessments and Performance Analysis	2,196,381	2,196,381	2,338,222	141,842	6.5%
Training and Education	662,774	662,774	723,482	60,709	9.2%
Total by Program	\$ 14,211,538	\$ 14,211,538	\$ 17,160,613	\$ 2,949,075	20.8%



FTEs by Program Area

Personnel Analysis

The following table displays total full-time equivalents (FTEs) by program area.

Total FTEs by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
STATUTORY						
Operational Programs						
Reliability Standards	1.25	1.25	1.25	-	1.25	-
Compliance and Organization Registration	38.75	38.75	41.75	-	41.75	3.00
Training and Education	2.25	2.25	2.25	-	2.25	-
Reliability Assessment and Performance Analysis	6.00	6.00	6.00	-	6.00	-
Total FTEs Operational Programs	48.25	48.25	51.25	-	51.25	3.00
Administrative Programs						
General & Administrative	4.00	4.00	4.00	-	4.00	-
Legal and Regulatory	2.75	2.75	2.75	-	2.75	-
Information Technology	5.00	5.00	5.00	-	5.00	-
Human Resources	-	-	-	-	-	-
Finance and Accounting	3.00	3.00	3.00	-	3.00	-
Total FTEs Administrative Programs	14.75	14.75	14.75	-	14.75	-
Total FTEs	63.00	63.00	66.00	-	66.00	3.00

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

2021 Budget and Projection and 2022 Budget Comparisons

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
STATUTORY					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 13,343,400	\$ 13,343,400	\$ -	\$ 15,003,365	\$ 1,659,965
Penalties Released*	169,195	169,195	-	558,750	389,555
Total NERC Funding	\$ 13,512,595	\$ 13,512,595	\$ -	\$ 15,562,115	\$ 2,049,520
Interest	80,000	80,000	-	15,000	(65,000)
Total Funding (A)	\$ 13,592,595	\$ 13,592,595	\$ -	\$ 15,577,115	\$ 1,984,520
Expenses					
Personnel Expenses					
Salaries	\$ 7,886,558	\$ 7,886,558	\$ -	9,199,332	\$ 1,312,774
Payroll Taxes	537,917	537,917	-	635,827	97,910
Benefits	1,412,700	1,412,700	-	1,641,720	229,020
Retirement Costs	1,107,299	1,107,299	-	1,290,440	183,141
Total Personnel Expenses	\$ 10,944,474	\$ 10,944,474	\$ -	\$ 12,767,318	\$ 1,822,844
Meeting & Travel Expenses					
Meetings	\$ 35,400	\$ 35,400	\$ -	71,900	\$ 36,500
Travel	371,684	371,684	-	371,685	0
Total Meeting & Travel Expenses	\$ 407,085	\$ 407,084	\$ -	\$ 443,585	\$ 36,500
Operating Expenses, Excluding Depreciation					
Consultants & Contracts	\$ 442,404	\$ 442,404	\$ -	351,700	\$ (90,704)
Office Rent	1,080,000	1,080,000	-	1,473,545	393,545
Office Costs	672,740	672,740	-	684,840	12,100
Professional Services	614,835	614,835	-	607,625	(7,210)
Total Operating Expenses	\$ 2,809,979	\$ 2,809,979	\$ -	\$ 3,117,710	\$ 307,731
Total Direct Expenses	\$ 14,161,538	\$ 14,161,537	\$ -	\$ 16,328,613	\$ 2,167,075
Indirect Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ 320,000	\$ 320,000
Total Expenses (B)	\$ 14,161,538	\$ 14,161,538	\$ -	\$ 16,648,613	\$ 2,487,075
Change in Net Assets (A - B)	\$ (568,943)	\$ (568,943)	\$ -	\$ (1,071,498)	\$ (502,556)
Fixed Assets, excluding Right of Use Assets (C)					
	50,000	50,000	-	512,000	462,000
TOTAL BUDGET (B + C)	14,211,538	14,211,538	\$ -	\$ 17,160,613	\$ 2,949,075
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ (618,943)	\$ (618,943)	\$ -	\$ (1,583,498)	\$ (964,556)
FTEs	63.00	63.00		66.00	

*Penalties Released in the current year reflects the designated amount of funds released to offset U.S. Assessments. Actual penalties invoiced in the current year are reported as income on the audited financial statements in accordance with Generally Accepted Accounting Printples (GAAP).

Approved by the Texas RE Board of Directors, May 19, 2021

Section A – Statutory Programs

2022 Business Plan and Budget



Section A — 2022 Business Plan – Statutory Programs

Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.25	1.25	-
Direct Expenses	\$ 257,836	\$ 262,704	\$ 4,868
Indirect Expenses	\$ 155,038	\$ 175,389	\$ 20,351
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 1,295	\$ 12,488	\$ 11,192
Total Funding Requirement	\$ 414,169	\$ 450,580	\$ 36,411

Program Scope and Functional Description

Texas RE's Reliability Standards Program supports the NERC Reliability Standards Program and facilitates the development of regional standards and variances, in accordance with the Texas RE Standards Development Process. Texas RE Standards staff coordinates and publicly posts information regarding the activities of the Texas RE MRC's standards development activities, the NERC Standards Review Forum (NSRF), and all regional standard drafting teams (SDTs).

The Texas RE Standards Development Process is open to all individuals and organizations that are directly and materially affected by the ERCOT region BPS, with no undue financial barriers and regardless of Texas RE membership status. Texas RE's Standards Development Process provides for fair and due process by providing sufficient public notice of the intent to develop a regional standard. The Standards Development Process includes an appeal process and an interpretation process.

Texas RE Standards staff supports and participates in the NERC Standards Committee and other NERC activities relating to standards development. Texas RE regularly comments and votes on proposed NERC Reliability Standards and revisions from its perspective as the Compliance Enforcement Authority, based on recommendations and input from subject matter experts employed by Texas RE.

In addition, Texas RE reviews proposed NERC Reliability Standards. This Program area supports and facilitates standards activities of the Texas RE MRC and the NSRF. The MRC is a stakeholder committee that oversees the execution of the Texas RE Standards Development Process. The NSRF provides a regional stakeholder forum for education and discussion of NERC Reliability Standards activities, both regional and continent-wide.

Texas RE Standards staff provides education and advice to other Texas RE departments regarding issues relating to standards, including applicability and interpretation of requirements in accordance with NERC processes.

When developing Regional Standards, Texas RE is responsible for adhering to its FERC-approved Regional Standards development processes, and for assisting NERC as needed with obtaining NERC Board approval and subsequent filing(s) with FERC and other regulatory authorities, as appropriate, including developing the record necessary to support approval.

2022 Key Assumptions

- Continent-wide NERC Reliability Standards projects will consist primarily of new Standards Authorization Requests, Periodic Reviews, Standards Efficiency Review (SER) Implementation, and Standards Grading, covering both Critical Infrastructure Protection (CIP) and Operations and Planning standards. These activities will require the allocation of technical resources from several internal NERC departments (e.g., Reliability Assessment and Performance Analysis (RAPA), Reliability Risk Management (RRM), Compliance Analysis and Certification (CAC), and Compliance Assurance) and support from across the ERO Enterprise.
- Regional Standards development activity will be driven by requests the Regional Entity may receive or reliability issues the Regional Entity may identify. Although Regional Standards development activity is expected to remain low, Texas RE Regional Standard BAL-001-TRE-2 is subject to periodic review and revision under the Texas RE Regional Standard development process, and additional technical resources may be required in support of region-specific activities in connection with this standard.
- In coordination with SDTs and consistent with current approaches, Regional Entities may support outreach during standards development. Additionally, following FERC approval, Regions will assist the transition of standards to compliance monitoring and enforcement, supporting industry and auditor training, or providing information regarding the intent of the standard.
- The number of interpretations is expected to remain low. However, guidance requests associated with the implementation of standards may increase.
- Regional Entities will continue to be asked to participate in teams to help enhance application business requirements and test business functionality for ERO Enterprise applications projects, including Align and the Secure Evidence Locker (SEL).

2022 Goals and Key Deliverables

- Provide input on and facilitate industry review of new and existing NERC Reliability Standards, including cost effectiveness/impact analysis.
 - Provide input and feedback for new and existing NERC Reliability Standards using compliance monitoring experience as a basis.
 - Provide guidance and outreach on approved NERC Reliability Standards and Regional Standards.
 - Develop, as needed, regional variances or Regional Standards to address specific reliability risks and evaluate the need for existing Regional Standards.
-

- Review existing Regional Standards to determine if any could be incorporated as a regional variance to a continent-wide NERC Reliability Standard.

Resource Requirements

Personnel Expenses

The number of FTEs assigned to this Program is consistent with 2021.

Consultants and Contracts

No consulting support and contracts are budgeted for 2022, which is consistent with the 2021 budget.

Section A — 2022 Business Plan and Budget – Statutory Programs

Reliability Standards Program

The following table shows the funding sources and related expenses for the Reliability Standards Program for 2022. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
RELIABILITY STANDARDS					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 345,684	\$ 345,684	\$ -	365,936	\$ 20,252
Penalties Released	4,383	4,383	-	13,628	9,245
Total NERC Funding	\$ 350,067	\$ 350,067	\$ -	\$ 379,564	\$ 29,497
Interest	2,073	2,073	-	366	(1,707)
Total Funding	\$ 352,140	\$ 352,140	\$ -	\$ 379,930	\$ 27,790
Expenses					
Personnel Expenses					
Salaries	\$ 174,732	\$ 174,732	\$ -	178,151	\$ 3,420
Payroll Taxes	12,643	12,643	-	12,875	232
Benefits	40,608	40,608	-	41,405	796
Retirement Costs	22,953	22,953	-	23,373	420
Total Personnel Expenses	\$ 250,936	\$ 250,936	\$ -	\$ 255,804	\$ 4,868
Meeting & Travel Expenses					
Meetings & Conference Calls	\$ -	\$ -	\$ -	-	\$ -
Travel	6,900	6,900	-	6,900	-
Total Meeting & Travel Expenses	\$ 6,900	\$ 6,900	\$ -	\$ 6,900	\$ -
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	-	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Total Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Direct Expenses	\$ 257,836	\$ 257,836	\$ -	\$ 262,704	\$ 4,868
Indirect Expenses	\$ 155,038	\$ 155,038	\$ -	\$ 175,389	\$ 20,351
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses	\$ 412,874	\$ 412,874	\$ -	\$ 438,092	\$ 25,219
Change in Assets	\$ (60,734)	\$ (60,734)	\$ -	\$ (58,163)	\$ 2,571
Fixed Assets, excluding Right of Use Assets (C)	\$ 1,295	\$ 1,295	\$ -	\$ 12,488	11,192
TOTAL BUDGET	\$ 414,169	\$ 414,169	\$ -	\$ 450,580	\$ 36,411
TOTAL CHANGE IN WORKING CAPITAL	\$ (62,029)	\$ (62,029)	\$ -	\$ (70,650)	\$ (8,621)
FTEs	1.25	1.25	-	1.25	-

Approved by the Texas RE Board of Directors, May 19, 2021

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance Monitoring and Enforcement and Organization Registration and Certification Program			
(in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	38.75	41.75	3.0
Direct Expenses	\$ 6,091,875	\$ 7,373,253	\$ 1,281,377
Indirect Expenses	\$ 4,806,184	\$ 5,857,983	\$ 1,051,799
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 40,155	\$ 417,093	\$ 376,937
Total Funding Requirement	\$ 10,938,214	\$ 13,648,328	\$ 2,710,113

Program Scope and Functional Description

Texas RE's Compliance Monitoring and Enforcement and Organization Registration and Certification Program includes the key activities of registering (and where required, certifying) responsible entities, monitoring and assessing compliance with the NERC Reliability Standards and Regional Standards, and enforcing and ensuring mitigation of violations of standards in accordance with the NERC ROP. The primary monitoring and assessment methods include audits, self-reports, self-certifications, complaints, spot checks, compliance investigations, and data submittals.

There are several major ERO-wide activities that are expected to benefit NERC, the Regional Entities, and registered entities. The risk-based Compliance and Enforcement Monitoring Program (CMEP) is a multi-year effort to identify and implement changes to enhance the effectiveness of the ERO's compliance and enforcement functions. To support this effort, a set of new tools, referred to as Align and Secure Evidence Locker (SEL) have been developed collaboratively with NERC, the Regional Entities, and registered entities. Risk-based CMEP is designed to improve Bulk Electric System (BES) reliability by focusing efforts on serious and substantial reliability risks and on the internal controls that mitigate those risks. Align and SEL will support those initiatives across the ERO.

Implementation of, and consideration of enhancements for, Align and SEL are expected to be major activities for Texas RE and the registered entities in 2022. Risk-based CMEP efforts that continue to fully develop, and the increase in the number of registered entities, will require Texas RE to appropriately allocate current resources and request additional resources to provide continuous improvement in the processes. Based on the high level of coordination between NERC, Regional Entities, and registered entities that is necessary for an efficient and effective implementation, Align and SEL will shift and in some cases increase workload levels. Risk-based CMEP, enhanced security, and other factors (e.g., CIP Low Impact, Supply Chain, additional registered entities associated with solar and battery Facilities, etc.) have gradually but significantly impacted resource staffing of Texas RE.

To facilitate continuous improvement and quality efforts, three additional FTEs are included in the 2022 budget request. Since resource demands are not fully known but are forecasted to increase, consideration will be given to reallocating existing staff or using available reserves to provide as much resource support as possible.

2022 Key Assumptions

- Expand risk-based focus in all standards, compliance monitoring, and enforcement programs.
- Assess and catalyze steps to mitigate known and emerging risks to reliability and security, leveraging the Reliability Issues Steering Committee's biennial *ERO Reliability Risk Priorities Report*.
- Strengthen engagement across the reliability and security ecosystem in North America.
- Capture effectiveness, efficiency, and continuous improvement opportunities.

2022 Goals and Key Deliverables

COMPLIANCE MONITORING

- Participate in NERC standards development, including addressing FERC directives, emerging risks, Standards Authorization Requests, and further possible phases of Standards Efficiency Review (SER) project.
- Enhance the risk-based approach to compliance monitoring processes.
- Review, refine, and enhance Internal Control processes and outreach.
- Actively engage in the enhancement and full deployment of Align and SEL to ensure CMEP processes are efficient, effective, secure, and consistent for staff and stakeholders.
- Identify current and emerging risks to security and reliability affecting the ERCOT Interconnection.
- Identify and develop monitoring approaches focusing on emerging risks such as Distributed Energy Resources, storage, and demand side resources.
- Continue to focus on and mitigate cyber security risks.
- Promote and encourage effective collaboration and engagement with Texas RE Board, industry, regulators, and stakeholders.
- Expand ERO Enterprise stakeholder engagement to ensure the right subject matter experts participate to resolve issues in a timely and cost effective manner.
- Proactively participate in ERO working groups to efficiently and effectively work with the ERO Enterprise.
- Ensure Texas RE is appropriately staffed and managed to maximize stakeholder value, maintain independence, and perform all delegated responsibilities. Promote communication, motivation, team building, and workforce development within Texas RE.

ENFORCEMENT

- Review, validate, and process or dismiss all possible violations in a timely fashion using the Align and SEL systems.
- Undertake enforcement activities in accordance with established risk-based approaches.
- Manage all settlements and contested cases to completion, as efficiently as possible.
- Coordinate appropriate engineering, other subject matter experts, and legal resources for the processing of alleged violations, including all settlements, appeals, and contested cases.
- Use targeted, aggressive enforcement for the violations posing the most risk to BPS reliability.
- Conduct technical assessments of registered entities' plans and activities to mitigate noncompliance.
- Support streamlined mechanisms implemented to expedite possible violations that pose a lesser reliability risk to the BPS.
- Improve the consistency and timeliness of all compliance and enforcement data tracking to enable review and reporting for compliance and enforcement staff, management, the Texas RE Board, NERC, and stakeholders.
- Promote timeliness and transparency of compliance results, including those efforts associated with meeting the caseload index, average violation aging, and mitigation aging metrics.
- Assure timely mitigation of all violations, assessing all mitigating activities and mitigation plans for effectiveness and reasonableness of implementation, tracking completion of accepted plans to closure, and verifying completion of mitigation plans.
- Enhance feedback loops to the Reliability Standard development process.

REGISTRATION AND CERTIFICATION

- Identify and register BES owners, operators, and users. Maintain accurate, up-to-date registration information through the Centralized Organization Registration ERO System (CORES), identifying entities responsible for compliance.
- Ensure entities performing the functions of Reliability Coordinator, Balancing Authority, and Transmission Operator have and maintain the tools, processes, and training to meet applicable Reliability Standards requirements.

Resource Requirements

Personnel Expenses

The number of FTEs assigned to this Program is increasing by three compared with 2021.

Consultants and Contracts

Contracts and consulting services for this department has decreased due to costs associated with webCDMS being transferred to the IT department for 2022.

Section A — 2022 Business Plan and Budget – Statutory Programs

Compliance Monitoring, Enforcement and Organization Registration and Certification Program

The following table shows the funding sources and related expenses for the Compliance Enforcement and Organization Registration and Certification Program for 2022. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
COMPLIANCE MONITORING, ENFORCEMENT and ORGANIZATION REGISTRATION and CERTIFICATION					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 10,716,202	\$ 10,716,202	\$ -	\$ 12,222,254	\$ 1,506,052
Penalties Released	135,882	135,882	-	455,177	319,295
Total NERC Funding	<u>\$ 10,852,083</u>	<u>\$ 10,852,083</u>	<u>\$ -</u>	<u>\$ 12,677,430</u>	<u>\$ 1,825,347</u>
Interest	64,249	64,249	-	12,220	(52,029)
Total Funding	<u>\$ 10,916,332</u>	<u>\$ 10,916,332</u>	<u>\$ -</u>	<u>\$ 12,689,649</u>	<u>\$ 1,773,318</u>
Expenses					
Personnel Expenses					
Salaries	\$ 4,066,256	\$ 4,066,256	\$ -	\$ 5,104,337	\$ 1,038,080
Payroll Taxes	310,653	310,653	-	391,088	80,435
Benefits	816,798	816,798	-	992,629	175,831
Retirement Costs	579,329	579,329	-	721,425	142,096
Total Personnel Expenses	<u>\$ 5,773,036</u>	<u>\$ 5,773,036</u>	<u>\$ -</u>	<u>\$ 7,209,478</u>	<u>\$ 1,436,442</u>
Meeting & Travel Expenses					
Meetings & Conference Calls	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	143,175	143,175	-	143,175	-
Total Meeting& Travel Expenses	<u>\$ 143,175</u>	<u>\$ 143,175</u>	<u>\$ -</u>	<u>\$ 143,175</u>	<u>\$ -</u>
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 155,204	\$ 155,204	\$ -	\$ -	\$ (155,204)
Office Rent	-	-	-	-	-
Office Costs	20,460	20,460	-	20,600	140
Professional Services	-	-	-	-	-
Total Operating Expenses	<u>\$ 175,664</u>	<u>\$ 175,664</u>	<u>\$ -</u>	<u>\$ 20,600</u>	<u>\$ (155,064)</u>
Total Direct Expenses	<u>\$ 6,091,875</u>	<u>\$ 6,091,875</u>	<u>\$ -</u>	<u>\$ 7,373,253</u>	<u>\$ 1,281,378</u>
Indirect Expenses	<u>\$ 4,806,184</u>	<u>\$ 4,806,184</u>	<u>\$ -</u>	<u>\$ 5,857,983</u>	<u>\$ 1,051,799</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses	<u>\$ 10,898,059</u>	<u>\$ 10,898,059</u>	<u>\$ -</u>	<u>\$ 13,231,235</u>	<u>\$ 2,333,177</u>
Change in Net Assets	<u>\$ 18,273</u>	<u>\$ 18,273</u>	<u>\$ -</u>	<u>\$ (541,586)</u>	<u>\$ (559,859)</u>
Fixed Assets, excluding Right of Use Assets	<u>\$ 40,155</u>	<u>\$ 40,155</u>	<u>\$ -</u>	<u>\$ 417,093</u>	<u>\$ 376,937</u>
TOTAL BUDGET	<u>\$ 10,938,214</u>	<u>\$ 10,938,214</u>	<u>\$ -</u>	<u>\$ 13,648,328</u>	<u>\$ 2,710,114</u>
TOTAL CHANGE IN WORKING CAPITAL	<u>\$ (21,883)</u>	<u>\$ (21,883)</u>	<u>\$ -</u>	<u>\$ (958,678)</u>	<u>\$ (936,796)</u>
FTEs	<u>38.75</u>	<u>38.75</u>	<u>-</u>	<u>41.75</u>	<u>3.00</u>

Approved by the Texas RE Board of Directors, May 19, 2021

Reliability Assessment and Performance Analysis Program

Reliability Assessments and Performance Analysis (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	6.00	6.00	-
Direct Expenses	\$ 1,445,980	\$ 1,436,415	\$ (9,565)
Indirect Expenses	\$ 744,183	\$ 841,866	\$ 97,682
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 6,218	\$ 59,941	\$ 53,724
Total Funding Requirement	\$ 2,196,381	\$ 2,338,222	\$ 141,842

Program Scope and Functional Description

Texas RE's Reliability Assessment and Performance Analysis (RAPA) Program supports assessment of system adequacy and operating reliability of the BPS in the ERCOT region, both existing and planned, as well as review of system disturbances in the ERCOT region. In addition to these assessments and analyses, Texas RE participates with NERC and stakeholders in ongoing work to evaluate system performance, measure progress in improving current reliability and track leading indicators of future reliability. This program requires validation and analysis of data collected from registered entities, which is used in measurement of ongoing reliability performance of generation, transmission, and demand response. RAPA also identifies risks and analyzes key issues that may affect reliability, such as market practices, legislation, regulation, technology developments, high-impact low frequency (HILF) events, and grid modifications. Event analyses will determine causative factors for system disturbances as well as "lessons learned" upon recovering from them. Texas RE will disseminate these insights to industry and seek broader collaboration among stakeholders to identify and reduce threats to reliability.

RAPA also includes Situation Awareness (SA) and Infrastructure Security. Situation Awareness is closely tied to initial event review, performed as part of the Event Analysis Process in the RAPA Program, while Texas RE's Infrastructure Security effort is handled primarily by IT staff and CIP resources within the CMEP and Organizational Registration and Certification Program.

2022 Key Assumptions

- Current staffing levels are expected to meet known and predicted program needs. Evolution of ERO RAPA programs, particularly those involving data analytics and probabilistic analysis, have not established a need for additional Regional program resources at this time.
- Continued ERCOT ISO and Regional stakeholder support is expected in Regional planning activities that meet ERO schedules for the various proposed reliability assessments and Interconnection study case model building activities.
- Access to ERCOT-ISO data and applications continues as in the past.

- Travel and meeting expenses are held at 2021 levels given the fluid situation about COVID-19 impact on in-person gatherings and the outcome of inquiries on the February 2021 extreme cold weather event.

2022 Goals and Key Deliverables

- Provide independent review of regional data and assist NERC in overall development of the annual long-term, summer and winter reliability assessments, support enhanced use of probabilistic analysis and review of extreme conditions due to weather or other causes.
- Support NERC-wide modeling improvement efforts, particularly those related to dynamic loads, inverter-based resources, Distributed Energy Resources and generator model validation. As the Interconnection model designee associated with MOD-032 and MOD-033 Reliability Standards, Texas RE will provide outreach with stakeholders to integrate annual fidelity and quality tests into Interconnection study-case development processes.
- Participate in technical working groups under the NERC Reliability and Security Technical Committee and contribute to development of Reliability Guidelines and Technical Reference documents. Provide follow-up on effectiveness of guidelines with stakeholder outreach.
- Provide Section 1600 data collection support and analysis to meet NERC System Analysis initiatives or FERC requests. In 2022, additional data collection for wind, solar and battery systems is planned.
- Perform analysis as needed to evaluate NERC reliability metrics and contribute to NERC's annual State of Reliability report along with Region-specific annual reports and quarterly reviews. While content may change, the number of metrics and level of analysis is expected to remain essentially consistent in 2022 with 2021.
- Review NERC Reliability Standards and process developments. Evaluate against existing and proposed Regional criteria and processes for reliability concerns.
- Implement the NERC event analysis and cause-coding process, expecting a similar volume of events as 2020, estimated at 12 Category 1 (minor). Conduct follow-up on recommendations and trends from the February 2021 cold weather event and other major power system events. Review and trend approximately 80 lesser system events, such as remedial action scheme mis-operations, communications issues, and frequency disturbances.
- Support application of the BES Definition and associated processes through technical review of Registration requests. Ten or fewer requests with significant review are expected.
- Promote the work of the NERC Reliability Issues Steering Committee (RISC) to identify and prioritize BPS reliability risks and incorporate into RAPA activities and projects. Tailor RISC observations and Regional information to identify impacts within the Region and means to mitigate them.
- Provide workshops, webinars, and other outreach to support industry participation in RAPA programs and to disseminate "lessons learned," best practices, trends and observations. Conduct focused reviews with ten entities or stakeholder groups

on topics such as protection system mis-operations, model usage and validation and equipment performance data.

- Support Texas RE cross-departmental use of software applications and data from ERCOT ISO, NERC, and other sources for analysis needs. Provide regional coordination to maintain the Situation Awareness for FERC, NERC and the Regional Entities (SAFNR) tool, along with internal real-time visualization tools.
- Continue joint activities with ERCOT ISO to host winter preparation workshops and conduct 30-40 site or virtual visits as appropriate following the recommendations of the 2021 ERO FERC inquiry.
- Provide Situation Awareness during major system events and ERO Crisis Action Plan drills. Manage NERC Alerts within the Region, anticipating four alerts, with two alerts expected to require extensive response coordination. Assist E-ISAC in outreach and planning NERC GridEx Security exercises. Texas RE will request to participate in Regional exercises for blackstart and severe weather operations.

Resource Requirements

Personnel Expenses

The number of FTEs assigned to this Program is consistent with 2021.

Consultants and Contracts

No consulting support and contracts are budgeted for 2022, which is consistent with the 2021 budget. No task assignments have been identified that require consulting or contractor support.

Section A — 2022 Business Plan and Budget – Statutory Programs

Reliability Assessment and Performance Analysis Program

The following table shows the funding sources and related expenses for the Reliability Assessment and Performance Analysis Program for 2022. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
RELIABILITY ASSESSMENTS and PERFORMANCE ANALYSIS					
	2021	2021	Variance	2022	Variance
	Budget	Projection	2021 Projection v 2021 Budget Over(Under)	Budget	2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 1,659,283	\$ 1,659,283	\$ -	\$ 1,756,492	\$ 97,209
Penalties Released	21,040	21,040		65,415	44,375
Total NERC Funding	\$ 1,680,323	\$ 1,680,323	\$ -	\$ 1,821,906	\$ 141,584
Interest	9,948	9,948	-	1,756	(8,192)
Total Funding	\$ 1,690,271	\$ 1,690,271	\$ -	\$ 1,823,662	\$ 133,391
Expenses					
Personnel Expenses					
Salaries	\$ 932,415	\$ 932,415	\$ -	\$ 962,540	\$ 30,124
Payroll Taxes	64,899	64,899	-	67,054	2,155
Benefits	155,128	155,128	-	170,407	15,279
Retirement Costs	134,397	134,397	-	138,774	4,377
Total Personnel Expenses	\$ 1,286,840	\$ 1,286,840	\$ -	\$ 1,338,775	\$ 51,935
Meeting & Travel Expenses					
Meetings & Conference Calls	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	87,500	87,500	-	87,500	-
Total Meeting & Travel Expenses	\$ 87,500	\$ 87,500	\$ -	\$ 87,500	\$ -
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	71,640	71,640	-	10,140	(61,500)
Professional Services	-	-	-	-	-
Total Operating Expenses	\$ 71,640	\$ 71,640	\$ -	\$ 10,140	\$ (61,500)
Total Direct Expenses	\$ 1,445,980	\$ 1,445,980	\$ -	\$ 1,436,415	\$ (9,565)
Indirect Expenses	\$ 744,183	\$ 744,183	\$ -	\$ 841,866	\$ 97,682
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses	\$ 2,190,163	\$ 2,190,163	\$ -	\$ 2,278,281	\$ 88,118
Change in Net Assets	\$ (499,892)	\$ (499,892)	\$ -	\$ (454,619)	\$ 45,274
Fixed Assets, excluding Right of Use Assets	\$ 6,218	\$ 6,218	\$ -	\$ 59,941	\$ 53,724
TOTAL BUDGET	\$ 2,196,381	\$ 2,196,381	\$ -	\$ 2,338,222	\$ 141,842
TOTAL CHANGE IN WORKING CAPITAL	\$ (506,110)	\$ (506,110)	\$ -	\$ (514,560)	\$ (8,450)
FTEs	6.00	6.00	-	6.00	-

Approved by the Texas RE Board of Directors, May 19, 2021

Training and Education

Training and Education (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.25	2.25	-
Direct Expenses	\$ 381,373	\$ 385,305	\$ 3,931
Indirect Expenses	\$ 279,069	\$ 315,700	\$ 36,631
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 2,332	\$ 22,478	\$ 20,146
Total Funding Requirement	\$ 662,774	\$ 723,482	\$ 60,709

Program Scope and Functional Description

Texas RE's Training, Education, and Continuing Education Program provides education and training primarily focused on implementation of the CMEP (including processes and expectations), application of NERC and Regional Reliability Standards, lessons learned from event analyses, and other related information pertinent to system reliability and compliance. Texas RE subject matter experts from other programs provide expertise for educational materials, meetings, and workshops. Texas RE also supports ERO-wide initiatives such as GridSecCon and the Electric Power Human Performance Improvement Symposium, including co-hosting on a rotational basis among the Regions. In addition, Texas RE provides assistance for the annual ERCOT Operator Training Seminar and Generator Winter Weatherization Workshop.

Texas RE will continue to coordinate Standards and Compliance workshops, Reliability 101, security-based CIP workshops, and other education and sharing meetings and webinars, including *Talk with Texas RE*, in 2022. The purpose of these workshops, meetings, and webinars is to provide standards, compliance, and procedural information and expectations, share lessons learned and best practices, obtain feedback from stakeholders, and provide sharing opportunities for registered entities and other stakeholders. Texas RE will use cost-effective additional education mechanisms such as webinars, newsletters, and conference calls, and will coordinate presentations by Texas RE subject matter experts at other ERO Enterprise and external industry meetings.

2022 Key Assumptions

- Additional resources are required to support training related to ERO initiatives and stakeholder conferences.
- Additional resources are also required to support enhanced region-specific stakeholder training opportunities and develop new content-delivery platforms.

2022 Goals and Key Deliverables

- Communicate and maintain effective relationships with industry, regulators, and stakeholders.
- Promote stakeholder engagement in Texas RE and the ERO Enterprise, including attending training opportunities.
- Develop technical materials for and present Reliability Standards and Compliance workshops for registered entities.
- Present additional workshops, webinars, meetings, and other industry outreach, including *Talk with Texas RE* meetings to support CMEP implementation and any new or modified NERC Reliability Standards, procedures, or programs.
- Create and publish newsletters that disseminate lessons learned for registered entities and include useful updates regarding Reliability Standards revisions and interpretations, other reliability or compliance-related information, and Texas RE and NERC activities.
- Maintain and continually enhance the Texas RE website.
- Develop an Annual Report summarizing Texas RE's accomplishments during the prior year.
- Coordinate with and provide Texas RE subject matter experts as a resource for ERCOT regional stakeholder training and NERC compliance and reliability working groups.
- Provide a mechanism for workshop, webinar, and meeting participants and other stakeholders to provide feedback and suggestions to be used to enhance future workshops, webinars, and meetings.
- Explore opportunities to improve training for stakeholders and keep Texas RE's content and delivery mediums relevant.

Resource Requirements

Personnel Expenses

The number of FTEs assigned to this Program is consistent with 2021. Benefits expense includes employee training, which is being reduced in 2022.

Consultants and Contracts

No consulting support and contracts costs are budgeted for this department. No task assignments have been identified that require consulting or contractor support in 2022.

Section A — 2022 Business Plan and Budget – Statutory Programs

Training and Education

The following table shows the funding sources and related expenses for the Training and Education Program for 2022. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
TRAINING, EDUCATION and OPERATOR CERTIFICATION					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ 622,231	\$ 622,231	\$ -	\$ 658,684	\$ 36,453
Penalties Released	7,890	7,890	-	24,530	16,641
Total NERC Funding	\$ 630,121	\$ 630,121	\$ -	\$ 683,215	\$ 53,094
Interest	3,731	3,731	-	659	(3,072)
Total Funding	\$ 633,852	\$ 633,852	\$ -	\$ 683,873	\$ 50,022
Expenses					
Personnel Expenses					
Salaries	\$ 247,624	\$ 247,624	\$ -	\$ 250,405	\$ 2,782
Payroll Taxes	17,824	17,824	-	17,963	139
Benefits	53,755	53,755	-	34,339	(19,416)
Retirement Costs	35,340	35,340	-	35,727	387
Total Personnel Expenses	\$ 354,543	\$ 354,543	\$ -	\$ 338,435	\$ (16,109)
Meeting & Travel Expenses					
Meetings & Conference Calls	\$ 4,500	\$ 4,500	\$ -	\$ 34,500	\$ 30,000
Travel	3,030	3,030	-	3,030	-
Total Meeting & Travel Expenses	\$ 7,530	\$ 7,530	\$ -	\$ 37,530	\$ 30,000
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 3,500	\$ 3,500	\$ -	\$ -	\$ (3,500)
Office Rent	-	-	-	-	-
Office Costs	12,800	12,800	-	6,340	(6,460)
Professional Services	3,000	3,000	-	3,000	-
Total Operating Expenses	\$ 19,300	\$ 19,300	\$ -	\$ 9,340	\$ (9,960)
Total Direct Expenses	\$ 381,373	\$ 381,373	\$ -	\$ 385,305	\$ 3,931
Indirect Expenses	\$ 279,069	\$ 279,069	\$ -	\$ 315,700	\$ 36,631
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses	\$ 660,442	\$ 660,442	\$ -	\$ 701,004	\$ 40,562
Change in Net Assets	\$ (26,591)	\$ (26,591)	\$ -	\$ (17,132)	\$ 9,459
Fixed Assets, excluding Right of Use Assets	\$ 2,332	\$ 2,332	\$ -	\$ 22,478	\$ 20,146
TOTAL BUDGET	\$ 662,774	\$ 662,774	\$ -	\$ 723,482	\$ 60,709
TOTAL CHANGE IN WORKING CAPITAL	\$ (28,922)	\$ (28,922)	\$ -	\$ (39,609)	\$ (10,687)
FTEs	2.25	2.25	-	2.25	-

Approved by the Texas RE Board of Directors, May 19, 2021

Administrative Services

Administrative Services						
	Direct Expenses & Fixed Assets			FTEs		
	2021 Budget	2022 Budget	Inc (Dec)	2021 Budget	2022 Budget	Inc (Dec)
General and Administrative	3,270,895	4,178,214	907,319	4.00	4.00	-
Legal and Regulatory	582,310	638,226	55,916	2.75	2.75	-
Information Technology	1,521,147	1,699,319	178,172	5.00	5.00	-
Human Resources	101,845	73,595	(28,250)	-	-	-
Finance and Accounting	558,278	601,583	43,305	3.00	3.00	-
Total Administrative Services	6,034,475	7,190,937	1,156,462	14.75	14.75	-

Program Scope and Functional Description

The Administrative Services Program is comprised of the following programs: General and Administrative, Legal and Regulatory, Information Technology, Human Resources, and Finance and Accounting. The resource requirements and comparative budget information for each of these functions is described below.

Texas RE allocates its Administrative Services expenses to the functional/direct areas proportionately based on FTE count. Each direct activity receives a pro-rata allocation of expense based on its FTEs compared to total direct program FTEs.

Fixed asset additions that benefit the entire corporation that are not specific to any one activity/function will be allocated based on FTEs to all of the direct activities.

The increase in Expenses and Fixed Assets for Administrative Services includes one-time expenses of \$320,000 for costs to relocate the Texas RE offices and \$512,000 for furniture and equipment needed for the new offices; these expenditures are allocated to the direct activity programs on the basis of FTEs as described above.

General and Administrative

This Program includes the President and CEO, the Vice President and Chief Operating Officer (VP), the personnel costs for the HR Department, and the compensation and expenses of the Texas RE Board. The President and CEO carries out the general affairs of Texas RE including administrative and corporate facilities support. The President and CEO reports to the Board and is responsible for leading, overseeing and managing the activities of Texas RE, managing relationships with NERC, FERC, registered entities, and other stakeholders, and for making final decisions with respect to non-contested enforcement actions. The VP performs a leadership role in coordinating and facilitating the activities of all Texas RE programs. The VP reports to the CEO and acts on behalf of the CEO in his absence.

Personnel expenses for Human Resources (HR) are included in General and Administrative (G&A). The benefits expenses in G&A include tuition reimbursement, training and classes, and relocation costs.

The number of FTEs assigned to this Program is consistent with 2021. Administrative Services costs are allocated among Programs based on Program FTE count during the year.

Consulting support and contracts costs are decreasing 22.7% in 2022. The 2021 budget includes search fees for two Board of Director positions and the CEO position which are not in the 2022 budget.

Legal and Regulatory

The Legal and Regulatory group provides legal advice, counsel, and governmental and external relations support to Texas RE management, Board, and employees, on all legal and regulatory matters affecting the organization. The Legal and Regulatory group also oversees (1) corporate membership enrollment, meetings, and voting; (2) Board and committee meetings, minutes, support, training, and other activities; (3) corporate documents and transactions; (4) governmental, regulatory relations, and communications; (5) the work of any outside legal counsel; and (6) the prosecution of any contested enforcement matters.

2022 Key Assumptions

- Texas RE will maintain the scope of its current operations.
- Activities of the Legal and Regulatory program will be consistent with current levels, but may increase due to external litigation activities.

2022 Key Deliverables and Goals

- Provide timely, useful legal advice to the CEO, the Board, and all Program areas, and provide annual employee and Board ethics and antitrust compliance training.
- Effectively communicate information to the Board, Texas RE members, and registered entities.
- Oversee membership registration, membership voting and meetings, and maintain an accurate roster of members.
- Maintain effective relationships and communications with NERC, FERC, PUCT, and other state and federal representatives, and timely file all documents required by NERC or FERC.
- Negotiate contracts and review corporate documents.
- Update and maintain corporate policies and procedures.
- Oversee the prosecution and any appeal of contested enforcement or disputed registration matters.

The budgeted number of FTEs for Legal and Regulatory is remaining constant in 2022.

Consulting support and contracts are decreasing 54.1% to reflect actual costs for the ethics reporting hotline.

Legal Fees are remaining consistent in 2022.

Information Technology

Texas RE's Information Technology (IT) and physical and cyber security program provides IT and security support to Texas RE, including the following: hardware, systems, software, and applications support; physical and electronic and security, data center operations, IT and security-related vendor management; strategy, planning, development, and deployment of enterprise systems and applications, including training and planning for improvement and efficiency of business processes and operations.

Texas RE's approach is to keep its in-house IT staff small and efficiently outsource maintenance, services, and major development to ensure that applications and hardware are well maintained, service levels remain high, costs are controlled, and systems are consistent with business, regional, and federal requirements.

Texas RE supports the ERO efforts to implement, operate, and maintain software tools supporting common enterprise-wide operations that have been approved by the ERO Executive Committee (ERO-EC), which is comprised of the senior leadership of NERC and each of the Regional Entities. Texas RE's budget assumes the availability of enterprise software tools as described in NERC's Business Plan and Budget. If implementation of these software applications is delayed or otherwise not available as planned, Texas RE could incur additional costs to conduct operations pending the availability of these applications.

NERC and the Regional Entities are committed to working collaboratively to minimize duplication of effort and investments, and improve operational efficiency. This collaboration continues to refine existing strategies, governance, and procurement practices applicable to the development, operation, and maintenance of enterprise architecture, software, and data systems supporting combined NERC and Regional Entity operations.

The NERC information technology budget does not supplant Texas RE's need for IT expenditures for specific regional projects and internal region-specific IT support needs. Texas RE's 2022 Business Plan and Budget assumes agreed-upon ERO Enterprise applications will be available and includes Texas RE costs for internal region-specific support needs.

2022 Key Assumptions

- Focus on better leverage of current technology to support business functions and workflow.
- Increase knowledge of industry best practices for security, data management, and system administration.

2022 Goals and Key Deliverables

- Provide IT and security support to all Texas RE's operations, including: IT and security; infrastructure; service support; service design and delivery; service transition; and hardware and network security in a secure and efficient manner, with the following strategy:
 - Continue to develop knowledge of systems through training and experience to reduce the reliance on external vendors.

- Continue to use third-party security services to evaluate and test Texas RE's security posture, while fostering maturity in Texas RE's IT and Security internal controls program and security posture.
 - Continue to maintain the appropriate number of employees to oversee the strategy, policies and procedures, service, and performance, budget, and vendor management. Cross-train employees to serve as backups and mentors to each other.
 - Continue to outsource IT and security services that are not within the core competencies or IT's cost-containment plan, and augment employees with temporary contractors as needed to meet business requirements while developing knowledge of systems through training and experience to reduce the reliance on external vendors.
- Develop internal applications to increase consistency, efficiency, and assist users in business processes.
 - Assist business staff with enhancement requests and other IT-related project requirements, and prioritize and oversee all IT or security-related projects.
 - Coordinate and share best practices with other Regional Entities and NERC.
 - Participate in the design, planning and implementation of ERO Centralized Applications.
 - Continue the Security Awareness Program that addresses, through education and training, social media vulnerabilities that pose threats to Texas RE systems.
 - Train and support Texas RE staff on software and applications.
 - Continue to develop and test failover and disaster recovery methods for all Texas RE systems.

The budgeted number of FTEs for IT are remaining constant in 2022.

IT-Managed Services, which is included in the consulting support and contracts category, is increasing \$125,000 (125.0%), to \$225,000, in 2022. This department's budget is picking up costs for IT Managed Services that has previously been budgeted in other departments, resulting in an increase in Consultants and Contracts indirect expense which previously would have been budgeted primarily in the direct activity programs. This transfer of budget responsibility results in an increase in indirect expenses which is in turn allocated to the direct activities on the basis of FTEs.

Human Resources

The Texas RE Human Resources (HR) program area is responsible for the delivery of all HR functions including: recruitment, staffing, compensation, benefits, health and safety, employee relations, performance management, and employee training and development. HR maintains Human Resources Information System products and ensures compliance with all federal and state requirements.

2022 Key Assumptions

- Provide competitive compensation and benefits.

- Ensure that Texas RE maintains a skilled, qualified workforce.
- Maintain appropriate salaries and benefits based on industry data.

2022 Goals and Key Deliverables

- Recruit highly skilled employees.
- Review and update employee handbook and policies and procedures, as needed.
- Review and manage employee benefit plans.
- Review Texas RE compensation strategy in concert with executive management team to ensure Texas RE remains a competitive employer in its industry.

Personnel expenses are reported under G&A.

Consulting services and contracts are decreasing by 42.9% in 2022. The 2021 budget planned for three compensation studies and the 2022 budget plans for two studies: CEO and Executive.

Finance and Accounting

The Finance and Accounting function provides all accounting services and financial analysis for Texas RE. Texas RE Finance and Accounting personnel are responsible for general accounting and reporting, budget preparation and reporting, cash management, and tax filing.

2022 Key Assumptions

- Current accounting systems and controls are adequate.
- Identify and implement efficiencies in financial processes.
- Provide improved reporting and financial analysis to Directors, the Audit, Governance, and Finance Committee, and the Board of Directors.

2022 Goals and Key Deliverables

- Work with all Regional Entities to provide consistency in budget submittals to NERC and FERC.
- Provide improved reporting and financial analysis to the Texas RE CEO, Senior Management, and the Texas RE Board.
- Ensure strong internal controls designed to protect the assets of Texas RE and ensure accurate financial reporting.
- Identify and implement efficiencies in the financial processes.
- Ensure that Texas RE receives an unqualified opinion on the audit of its financial statements.

The budgeted number of FTEs for Finance and Accounting are remaining constant in 2022.

No consulting support and contracts are budgeted for 2022, which is consistent with the 2021 budget.

Section A — 2021 Business Plan and Budget – Statutory Programs

Administrative Services

The following table shows funding sources and related expenses for the Administrative Services section of the 2022 Business Plan and Budget. Explanations of variances by expense category are included with the Department Section and with the Supplemental Tables found in Section B.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2021 Budget & Projection, and 2022 Budget					
ADMINISTRATIVE SERVICES					
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget Over(Under)	2022 Budget	Variance 2021 Budget v 2022 Budget Over(Under)
Funding					
ERO Funding					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total NERC Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Interest	-	-	-	-	-
Total Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 2,465,531	\$ 2,465,531	\$ -	\$ 2,703,899	\$ 238,369
Payroll Taxes	131,898	131,898	-	146,847	14,949
Benefits	346,410	346,410	-	402,940	56,529
Retirement Costs	335,280	335,280	-	371,141	35,861
Total Personnel Expenses	\$ 3,279,119	\$ 3,279,119	\$ -	\$ 3,624,827	\$ 345,707
Meeting and Travel Expenses					
Meetings & Conference Cal	\$ 30,900	\$ 30,900	\$ -	\$ 37,400	\$ 6,500
Travel	131,080	131,080	-	131,080	-
Total Meeting & Travel Expenses	\$ 161,980	\$ 161,980	\$ -	\$ 168,480	\$ 6,500
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 283,700	\$ 283,700	\$ -	\$ 351,700	\$ 68,000
Office Rent	1,080,000	1,080,000	-	1,473,545	393,545
Office Costs	567,840	567,840	-	647,760	79,920
Professional Services	611,835	611,835	-	604,625	(7,210)
Total Operating Expenses	\$ 2,543,375	\$ 2,543,375	\$ -	\$ 3,077,630	\$ 534,255
Total Direct Expenses	\$ 5,984,474	\$ 5,984,474	\$ -	\$ 6,870,937	\$ 886,462
Indirect Expenses	\$ (5,984,474)	\$ (5,984,474)	\$ -	\$ (7,190,937)	\$ (1,206,463)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ 320,000	\$ 320,000
Total Expenses					
Change in Assets					
Fixed Assets, excluding Right of Use Assets	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET					
TOTAL CHANGE IN WORKING CAPITAL					
FTEs	14.75	14.75	-	\$ 14.75	-

Approved by the Texas RE Board of Directors, May 19, 2021

Section B – Supplemental Financial Information

2022 Business Plan and Budget



Section B — Supplemental Financial Information

Table B-1 – Reserve Balance

Working Capital Reserve Analysis 2021-2022				
STATUTORY				
	Total Reserve & Stabilization	Operating Reserve	Assessment Stabilization	Unreleased Penalties
Beginning Reserves, January 1, 2021	\$ 5,146,504	\$ 2,000,000	\$ 2,748,559	\$ 397,945
Plus: 2021 Funding (from LSEs or designees)	\$ 13,383,400	\$ 13,383,400	\$ -	\$ -
Plus: 2021 Other funding sources	80,000	80,000	-	-
Released from Assessment Stabilization & Contingency	-	618,943	(618,943)	-
Penalties Released in 2021	-	169,195	-	(169,195)
Penalty Sanctions Received July 1, 2020 - June 30, 2021	330,000	-	-	330,000
Less: 2021 Projected expenses & capital expenditures	(14,211,538)	(14,211,538)	-	-
Projected Reserves, December 31, 2021	\$ 4,728,366	\$ 2,040,000	\$ 2,129,616	\$ 558,750
Desired Reserves, December 31, 2022				
Target Reserve December 31, 2022	\$ 2,586,119	\$ 1,330,000	\$ 1,256,119	\$ -
Minus: Projected Reserves, December 31, 2021	(4,728,366)	(2,040,000)	(2,129,616)	(558,750)
Increase(decrease) in funding requirement to achieve Reserve	\$ (2,142,247)	\$ (710,000)	\$ (873,497)	\$ (558,750)
2022 Expenses and Capital Expenditures	\$ 17,160,613			
Less: Other Funding Sources	(15,000)			
Adjustment to achieve targeted working capital	(710,000)			
Reserves released from Assessment Stabilization	(873,497)			
Penalty Sanctions Released	(558,750)			
2022 NERC Assessment to Texas RE	\$ 15,003,365			

Explanation of Changes in Reserve Policy from Prior Years

The Board-approved Working Capital and Operating Reserve Policy calls for Texas RE to retain a \$2,000,000 cash reserve, or an amount as adjusted by the Board, or as required by regulators. The projected Operating Reserve for the 2022 budget period is \$1,330,000. In addition to reduction in the Operating Reserve amount, \$873,497 has been set aside for assessment stabilization to reduce the assessment in 2022.

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the statement of activities on page 11 of the 2022 Texas RE Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

Texas RE anticipates no variance between budgeted and actual/forecasted results for 2021. The 2022 budget was based on this information.

Penalty Sanctions

Penalty monies received by June 30, 2021 are to be used to offset assessments in the 2022 Budget, as documented in the NERC Policy – *ACCOUNTING, FINANCIAL STATEMENT AND BUDGETARY TREATMENT OF PENALTIES IMPOSED AND RECEIVED FOR VIOLATIONS OF RELIABILITY STANDARD*. Penalty monies received from July 1, 2021 through June 30, 2022 will be used to offset assessments in the 2023 Budget.

All penalties received by June 30, 2021 are detailed in Exhibit B-2.

Allocation Method: Penalty sanctions received have been allocated to the following statutory programs to reduce assessments: Reliability Standards; Compliance Monitoring & Enforcement and Organization Registration & Certification; Reliability Assessments and Performance Analysis; and Training and Education. Penalty sanctions are allocated based on the number of FTEs in the program divided by the aggregate total FTEs in the programs receiving the allocation.

Table B-2 – Penalty Sanctions

Penalty Sanctions Received On or Prior to June 30, 2021	Date Received	Amount Received
	9/1/2020 \$	36,750
	1/6/2021 \$	192,000
	5/28/2021 \$	330,000
Total Penalties Released		<u>\$ 558,750</u>

Table B-3 – Supplemental Funding

	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget
Reliability Standards				
Total	\$ -	\$ -	\$ -	\$ -
Compliance Monitoring, Enforcement & Org. Registration				
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis				
Total	\$ -	\$ -	\$ -	\$ -
Training and Education				
Total	\$ -	\$ -	\$ -	\$ -
Situation Awareness and Infrastructure Security				
Total	\$ -	\$ -	\$ -	\$ -
General and Administrative				
Interest Income	\$ 80,000	\$ 80,000	\$ 15,000	\$ (65,000)
Total	\$ 80,000	\$ 80,000	\$ 15,000	\$ (65,000)
Total Outside Funding	\$ 80,000	\$ 80,000	\$ 15,000	\$ (65,000)

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- Texas RE anticipates its investments will earn interest of approximately \$15,000 in 2022. Texas RE’s banking account is the Business Banking U.S. End of Day Money Market Mutual Fund Sweep account. This is based on interest rates being lower than prior year.

Table B-4 – Personnel Expenses

Personnel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Total Salaries	\$ 7,886,558	\$ 7,886,558	\$ 9,199,332	\$ 1,312,774	16.6%
Total Payroll Taxes	537,917	537,917	635,827	97,910	18.2%
Total Benefits	1,412,700	1,412,700	1,641,720	229,020	16.2%
Total Retirement	1,107,299	1,107,299	1,290,440	183,141	16.5%
Total Personnel Costs	\$ 10,944,474	\$ 10,944,474	\$ 12,767,318	\$ 1,822,844	16.7%
FTEs	63.00	63.00	66.00	3.00	4.8%
Cost per FTE					
Salaries	\$ 125,183	\$ 125,183	\$ 139,384	14,200	11.3%
Payroll Taxes	8,538	8,538	9,634	1,095	12.8%
Benefits	22,424	22,424	24,875	2,451	10.9%
Retirement	17,576	17,576	19,552	1,976	11.2%
Total Cost per FTE	\$ 173,722	\$ 173,722	\$ 193,444	\$ 19,722	11.4%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- Total costs for Texas RE personnel expenses are increasing by 16.7%. Salaries expense is increasing 16.6%, which includes an additional three FTEs for the CMEP program. Salaries expense also includes an allowance for salary increases, promotions, and market adjustments.
- Payroll taxes are increasing 18.2%, which includes State Unemployment Insurance Tax.
- Total Benefits expense is increasing 16.2%. Health plan expense did not increase as projected in 2021; however, health plan expense is projected to increase 9% for 2022 over actual 2021 cost, which is lower than the 2021 budgeted cost. Employee Benefits include education reimbursement, relocation expenses, and training and professional development, which are increasing to accommodate the additional three FTEs.
- Retirement costs are increasing 16.5%. Forfeiture funds are used when available to fund the employer portion of retirement plan cost. The overall cost for the plan has increased due to increases in fund costs and for additional FTEs.
- All personnel related expenses are increasing based on the additional salary expense for added FTEs.

Table B-5 – Meeting & Travel Expense

Meeting and Travel Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Meetings	\$ 35,400	\$ 35,400	\$ 71,900	\$ 36,500	103.1%
Travel	371,685	371,685	371,685	-	0.0%
	\$ 407,085	\$ 407,085	\$ 443,585	\$ 36,500	9.0%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- Meetings expense is increasing 103.1%. The 2022 budget includes Workshop Expense for a proposed Reliability Summit and an offsite workshop in the Training and Education Program that was not included in the 2021 budget. An annual meeting with the Texas RE Board of Directors and stakeholders is included in Meetings expense.
- The budget for Travel is remaining consistent with 2021.

Table B-6 – Consultants and Contracts

Consultants and Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance and Organization Registration and Certification	155,204	155,204	-	(155,204)	-100.0%
Reliability Assessment and Performance Analysis	-	-	-	-	
Training and Education	3,500	3,500	-	(3,500)	-100.0%
General and Administrative	110,000	110,000	85,000	(25,000)	-22.7%
Legal and Regulatory	3,700	3,700	1,700	(2,000)	-54.1%
Information Technology	100,000	100,000	225,000	125,000	125.0%
Human Resources	70,000	70,000	40,000	(30,000)	-42.9%
Accounting and Finance	-	-	-	-	
Consultants Total	\$ 442,404	\$ 442,404	\$ 351,700	\$ (90,704)	-20.5%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

Table B-7 – Office Rent

Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %
Office Rent	\$ 742,000	\$ 742,000	\$ 964,798	\$ 222,798	30.0%
Utilities	324,000	324,000	\$ 494,747	170,747	52.7%
Maintenance	14,000	14,000	\$ 14,000	-	0.0%
Total Office Rent & Utilitites	\$ 1,080,000	\$ 1,080,000	\$ 1,473,545	\$ 393,545	36.4%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- The lease for Texas RE office space at Las Cimas ends in March 2022. The new lease agreement at the MetCenter begins April 2022. The office space is larger to accommodate increased staffing, causing an escalation in Office Rent and utilities for 2022.

Table B-8 – Office Costs

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Telephone/Cell Phone	\$ 41,760	\$ 41,760	\$ 43,200	\$ 1,440	3.4%
Internet Expense	125,000	125,000	\$ 100,000	(25,000)	-20.0%
Office Supplies	42,350	42,350	\$ 42,950	600	1.4%
Computer Supplies & Maintenance	31,400	31,400	\$ 32,650	1,250	4.0%
IT Remote Support	1,350	1,350	\$ 1,350	-	0.0%
Software & Software Maintenance	170,100	170,100	\$ 215,250	45,150	26.5%
Subscriptions & Publications	25,020	25,020	\$ 23,540	(1,480)	-5.9%
Dues	8,200	8,200	\$ 9,200	1,000	12.2%
Postage	360	360	\$ 400	40	11.1%
Express Shipping	300	300	\$ 300	-	0.0%
Stationary & Office Forms	1,950	1,950	\$ 1,950	-	0.0%
Equipment Repair/Srv. Contracts	10,000	10,000	\$ 9,500	(500)	-5.0%
Bank Charges	1,800	1,800	\$ 1,800	-	0.0%
Property Taxes	12,000	12,000	\$ 12,000	-	0.0%
Merchant Credit Card Fee	1,400	1,400	\$ 2,000	600	42.9%
IT-Leased Equipment	196,000	196,000	\$ 165,000	(31,000)	-15.8%
Office Furniture & Equipment Exp	2,500	2,500	\$ 17,500	15,000	600.0%
IT Maintenance	-	-	\$ -	-	-
Employment Related Fees	1,250	1,250	\$ 6,250	5,000	400.0%
Total Office Costs	\$ 672,740	\$ 672,740	\$ 684,840	\$ 12,100	1.8%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- All categories in the Office Costs have been adjusted in the 2022 budget to more accurately reflect actual experience.
- Internet Expense is decreasing to align with actual costs.
- Software and Software Maintenance is increasing to reflect the costs of the PI Software and the new accounting software.
- IT-Leased Equipment is decreasing to reflect new contract at lower prices.
- Office Furniture & Equipment is increasing to include non-capitalized furniture and equipment that will be needed for the office relocation.

Table B-9 – Professional Services

Professional Services	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Board of Director Fees	\$ 359,835	\$ 359,835	\$ 371,525	\$ 11,690	3.2%
Accounting & Auditing Fees	58,000	58,000	60,000	2,000	3.4%
Legal Fees	30,000	30,000	30,000	-	0.0%
Insurance - Commercial	73,000	73,000	77,350	4,350	6.0%
Professional Services-Other	94,000	94,000	68,750	(25,250)	-26.9%
Total Professional Services	\$ 614,835	\$ 614,835	\$ 607,625	\$ (7,210)	-1.2%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- Board of Director Fees have been adjusted to reflect the potential increases that have been recommended by a third-party compensation study and approved by the Director Compensation Committee in late 2020.
- Accounting and Auditing Fees are increasing slightly due to annual price adjustment.
- Commercial Insurance is projected to increase slightly based on an estimate from the broker.
- Legal Fees are remaining consistent with 2021 and Professional Services are decreasing. Two penetration tests and an external IT audit were budgeted for 2021. One penetration test is in the 2022 budget and the external IT audit has been removed.

Table B-10 – Miscellaneous Expense

Miscellaneous	Budget		Projection		Budget		Variance	
	2021		2021		2022		2022 Budget v 2021 Budget	Variance %
Miscellaneous Expense	\$	-	\$	-	\$	-	\$	-
Total Miscellaneous Expenses	\$	-	\$	-	\$	-	\$	-

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- N/A

Table B-11 – Other Non-Operating Expenses

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	
Line of Credit Payment			\$ -		
Office Relocation	\$ -	\$ -	\$ 320,000	\$ 320,000	100.00%
Total Non-Operating Expenses	\$ -	\$ -	\$ 320,000	\$ 320,000	

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- The 2022 budget has one-time costs for Office relocation due to Texas RE is relocating the physical office space. No amount was budgeted in this category in prior years.

Table B-12 – Fixed Assets

Fixed Assets	Budget 2021	Projection 2021	Budget 2022	Variance	
				2022 Budget v 2021 Budget	Variance %
Computer & Software CapEx	\$ 50,000	\$ 50,000	\$ -	\$ (50,000)	-100.0%
Furniture & Fixtures CapEx	-	-	-	-	
Equipment CapEx	-	-	512,000	512,000	
Leasehold Improvements	-	-	-	-	
Total Fix Assets	\$ 50,000	\$ 50,000	\$ 512,000	\$ 462,000	924.0%

Explanation of Significant Variances – 2022 Budget versus 2021 Budget

- Fixed Assets are increasing because the office move will require new and additional furniture and equipment.

Table B-13 – 2023 and 2024 Projection

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2022 Budget & Projected 2023 and 2024 Budgets							
	2022 Budget	2023 Projection	\$ Change 23 v 22	% Change 23 v 22	2024 Projection	\$ Change 24 v 23	% Change 24 v 23
Funding							
ERO Funding							
NERC Assessments	\$ 15,003,364	\$ 15,603,498	\$ 600,135	4.0%	\$ 16,247,638	\$ 644,140	4.0%
Penalties Released	228,750	-	(228,750)	-100.00%	-	-	
Total NERC Funding	\$ 15,232,114	\$ 15,603,498	\$ 371,385	2.4%	\$ 16,247,638	\$ 644,140	4.0%
Interest	15,000	15,600	600	4.00%	16,224	624	4.0%
Total Funding	\$ 15,247,114	\$ 15,619,098	\$ 371,985	2.4%	\$ 16,263,862	\$ 644,764	4.1%
Expenses							
Personnel Expenses							
Salaries	\$ 9,199,332	\$ 9,567,305	\$ 367,973	4.0%	\$ 9,949,997	\$ 382,692	4.0%
Payroll Taxes	635,827	661,260	25,433	4.0%	687,710	26,450	4.0%
Benefits	1,641,720	1,707,388	65,669	4.0%	1,775,684	68,296	4.0%
Retirement Costs	1,290,440	1,342,058	51,618	4.0%	1,395,740	53,682	4.0%
Total Personnel Expenses	\$ 12,767,318	\$ 13,278,011	\$ 510,693	4.0%	\$ 13,809,131	\$ 531,120	4.0%
Meeting & Travel Expenses							
Meetings & Conference Calls	\$ 71,900	\$ 74,776	\$ 2,876	4.0%	\$ 77,767	2,991	4.0%
Travel	371,685	386,552	14,867	4.0%	402,014	15,462	4.0%
Total Meeting & Travel Expenses	\$ 443,585	\$ 461,328	\$ 17,743	4.0%	\$ 479,781	\$ 18,453	4.0%
Operating Expenses, excluding Depreciation							
Consultants & Contracts	\$ 351,700	\$ 365,768	14,068	4.0%	\$ 380,399	14,631	4.0%
Office Rent	1,473,545	1,576,693	103,148	7.0%	1,671,295	94,602	6.0%
Office Costs	684,840	712,234	27,394	4.0%	740,723	28,489	4.0%
Professional Services	607,625	631,930	24,305	4.0%	657,207	25,277	4.0%
Total Operating Expenses	\$ 3,117,710	\$ 3,286,625	\$ 168,915	5.4%	\$ 3,449,624	\$ 162,999	5.0%
Total Direct Expenses	\$ 16,328,613	\$ 17,025,964	\$ 697,351	4.3%	\$ 17,738,536	\$ 712,572	4.2%
Indirect Expenses	-	-	-	0.0%	-	-	0.0%
Other Non-Operating Expenses	320,000	-	(320,000)	-100.0%	-	-	
Total Expenses	\$ 16,648,613	\$ 17,025,964	\$ 377,351	2.3%	\$ 17,738,536	712,572	4.2%
Change in Net Assets	\$ (1,401,499)	\$ (1,406,865)	\$ (5,366)	0.4%	\$ (1,474,674)	\$ (67,808)	4.8%
Fixed Assets, excluding Right of Use Assets	\$ 512,000	\$ 100,000	\$ (412,000)	-80.5%	\$ 100,000	\$ (67,808)	0.0%
TOTAL BUDGET	\$ 17,160,613	\$ 17,125,964	\$ (34,649)	-0.2%	\$ 17,838,536	\$ 712,572	4.2%
TOTAL CHANGE IN WORKING CAPITAL	\$ (1,913,499)	\$ (1,506,865)	\$ 406,634	0.0%	\$ (1,574,674)	(67,808)	4.5%
FTEs	66	66	-	0.0%	66	-	0.0%

2023 and 2024 Projection Analysis

Reflects no additional FTEs and an overall expense increase of approximately 4% per year for all categories, except rent. Rent is projected to increase 7.0% and 6.0%, respectively, in years 2023 and 2024.

Section C – Non-Statutory Activities

2022 Business Plan and Budget

Texas Re has no Non-Statutory Activities



Section D – Supplemental Information

2022 Business Plan and Budget



Section D – Supplemental Information

2022 Statement of Activities by Program.

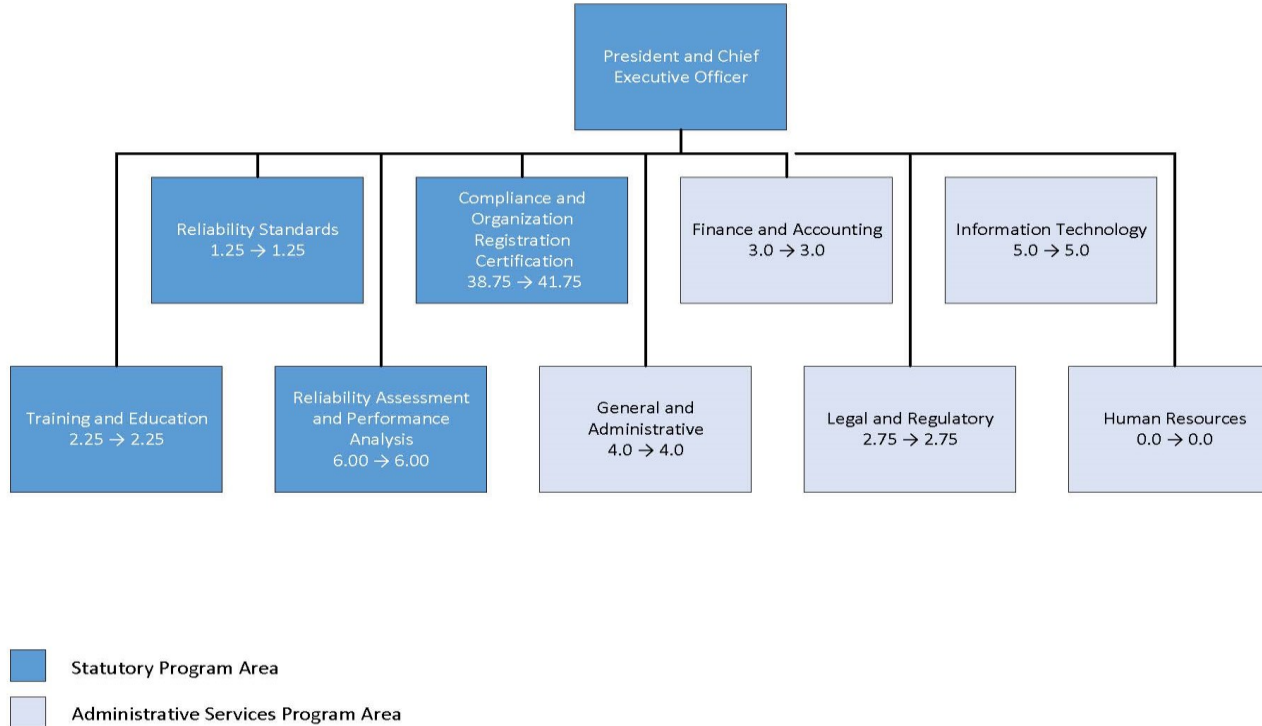
Funding	Statutory Total	Reliability Standards	CMEP	RAPA	Training and Education	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance
ERO Funding										
NERC Assessments	\$ 15,003,365	\$ 365,936	\$ 12,222,254	\$ 1,756,492	\$ 658,684	\$ -	\$ -		\$ -	
Penalties Released	558,750	13,628	455,177	65,415	24,530					
Total NERC Funding	\$ 15,562,115	\$ 379,564	\$ 12,677,431	\$ 1,821,906	\$ 683,215	\$ -	\$ -	\$ -	\$ -	\$ -
Interest	15,000	366	12,220	1,756	659	-				
Total Funding	\$ 15,577,115	\$ 379,930	\$ 12,689,650	\$ 1,823,662	\$ 683,873	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses										
Personnel Expenses										
Salaries	\$ 9,199,332	\$ 178,151	\$ 5,104,337	\$ 962,540	\$ 250,405	\$ 1,304,464	\$ 431,733	\$ 584,433	\$ -	\$ 383,268
Payroll Taxes	635,827	12,875	391,088	67,054	17,963	50,598	26,270	43,925	-	26,054
Benefits	1,641,720	41,405	992,629	170,407	34,339	126,969	68,327	142,319	-	65,326
Retirement Costs	1,290,440	23,373	721,425	138,774	35,727	173,678	62,016	80,742	-	54,705
Total Personnel Expenses	\$ 12,767,318	\$ 255,804	\$ 7,209,478	\$ 1,338,775	\$ 338,435	\$ 1,655,709	\$ 588,346	\$ 851,419	\$ -	\$ 529,353
Meeting Expenses										
Meetings & Conference Calls	\$ 71,900	\$ -	\$ -	\$ -	\$ 34,500	\$ 10,000	\$ -	\$ 11,400	\$ 16,000	\$ -
Travel	371,685	6,900	143,175	87,500	3,030	94,395	13,650	9,950	5,585	7,500
Conference Calls	-	-	-	-	-	-	-	-	-	-
Total Meeting Expenses	\$ 443,585	\$ 6,900	\$ 143,175	\$ 87,500	\$ 37,530	\$ 104,395	\$ 13,650	\$ 21,350	\$ 21,585	\$ 7,500
Operating Expenses, excluding Depreciation										
Consultants & Contracts	\$ 351,700	\$ -	\$ -	\$ -	\$ -	\$ 85,000	\$ 1,700	\$ 225,000	\$ 40,000	\$ -
Office Rent	1,473,545	-	-	-	-	1,473,545	-	-	-	-
Office Costs	684,840	-	20,600	10,140	6,340	90,690	4,530	536,550	11,260	4,730
Professional Services	607,625	-	-	-	3,000	448,875	30,000	65,000	750	60,000
Miscellaneous	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	\$ 3,117,710	\$ -	\$ 20,600	\$ 10,140	\$ 9,340	\$ 2,098,110	\$ 36,230	\$ 826,550	\$ 52,010	\$ 64,730
Total Direct Expenses	\$ 16,328,613	\$ 262,704	\$ 7,373,253	\$ 1,436,415	\$ 385,305	\$ 3,858,214	\$ 638,226	\$ 1,699,319	\$ 73,595	\$ 601,583
Indirect Expenses	\$ -	\$ 175,389	\$ 5,857,983	\$ 841,866	\$ 315,700	\$ (4,178,214)	\$ (638,226)	\$ (1,699,319)	\$ (73,595)	\$ (601,583)
Other Non-Operating	320,000	-	-	-	-	320,000	-	-	-	-
Total Expenses	\$ 16,648,613	\$ 438,092	\$ 13,231,235	\$ 2,278,281	\$ 701,004	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets	\$ (1,071,497)	\$ (58,163)	\$ (541,585)	\$ (454,619)	\$ (17,131)	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Assets, excluding Right of Use Assets	\$ 512,000	\$ 12,488	\$ 417,093	\$ 59,941	\$ 22,478	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET	\$ 17,160,613	\$ 450,580	\$ 13,648,328	\$ 2,338,222	\$ 723,482	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN WORKING CAPITAL	\$ (1,583,497)	\$ (70,650)	\$ (958,677)	\$ (514,560)	\$ (39,609)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	66.00	1.25	41.75	6.00	2.25	4.00	2.75	5.00	-	3.00

Statement of Financial Position

Statement of Financial Position				
	(Per Audit)		Projected	Budget
	31-Dec-20		31-Dec-21	31-Dec-22
ASSETS				
Cash	\$ 4,970,683	\$	4,288,000	\$ 4,000,000
Accounts receivable, net of allowance for uncollectible	-		-	-
Other Receivables	7,350		-	-
Prepaid expenses and other current assets	470,890		300,000	300,000
Security deposit	39,705		39,705	39,705
Cash value of insurance policies	-		-	-
Property and equipment	20,981		55,000	79,003
Total Assets	\$ 5,509,609	\$	4,682,705	\$ 4,418,708
LIABILITIES AND NET ASSETS				
Liabilities				
Accounts payable and accrued expenses	\$ 1,017,900	\$	850,000	\$ 850,000
Deferred income/rent	1,919		109,713	-
Deferred penalty income	-		-	-
Regional assessments	-		-	-
Deferred compensation	-		-	-
Accrued retirement liabilities				
Accrued incentive compensation				
Total Liabilities	\$ 1,019,819	\$	959,713	\$ 850,000
Unrestricted Net Assets				
Undesignated	\$ 4,283,692	\$	3,012,992	\$ 3,399,708
Regulator designated	206,098		710,000	169,000
Total Net Assets	\$ 4,489,790	\$	3,722,992	\$ 3,568,708
Total Liabilities and Net Assets	\$ 5,509,609	\$	4,682,705	\$ 4,418,708

2022 Texas RE Organization Chart

2022 Texas RE Organization Chart



Arrow indicates number of FTEs from 2021 to 2022.

DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 8

WESTERN ELECTRICITY COORDINATING COUNCIL

PROPOSED 2022 BUSINESS PLAN AND BUDGET



WECC

2022 Business Plan and Budget

Approved by: WECC Board of Directors

Date: June 16, 2021

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Introduction

TOTAL RESOURCES (in whole dollars)				
	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs*	152.5			
Non-statutory FTEs	7.0			
Total FTEs	159.5			
Statutory Expenses	\$ 29,634,985			
Non-Statutory Expenses	\$ 2,054,449			
Total Expenses	\$ 31,689,434			
Statutory Incr(Decr) in Fixed Assets	\$ 111,914			
Non-Statutory Incr(Decr) in Fixed Assets	\$ 682,086			
Total Inc(Dec) in Fixed Assets	\$ 794,000			
Statutory Working Capital Requirement**	\$ 855,302			
Non-Statutory Working Capital Requirement***	\$ (437,693)			
Total Working Capital Requirement	\$ 417,609			
Total Statutory Funding Requirement	\$ 30,602,201			
Total Non-Statutory Funding Requirement	\$ 2,298,842			
Total Funding Requirement	\$ 32,901,043			
Statutory Assessments	\$ 25,000,000	21,207,153	3,251,269	541,578
Non-Statutory Fees	\$ 2,298,842	2,252,865	45,977	-
NEL****	855,793,369	718,701,162	122,407,031	14,685,176
NEL%	100.0%	84.0%	14.3%	1.7%

Organizational Overview

WECC is a 501(c)(4) social welfare organization funded through Load-Serving Entity (LSE) assessments authorized by the Federal Energy Regulatory Commission (FERC) under Section 215 of the Federal Power Act. WECC's mission is to effectively and efficiently mitigate risks to the reliability and security of the Western Interconnection's bulk power system (BPS), while carrying out the responsibilities of the Regional Entity. WECC operates under a delegation agreement with the North American Electric Reliability Corporation (NERC) and according to its Bylaws. WECC executes its mission while working with a broad community consisting of industry stakeholders and two advisory bodies—the Member Advisory Committee (MAC) and the Western Interconnection Regional Advisory Body (WIRAB).

The Western Interconnection is a geographic area in which the use and generation of electricity is synchronized. This area includes all or part of 14 Western states in the United States, the Canadian provinces of British Columbia and Alberta, and a portion of Baja California Norte, Mexico.



WECC delivers on its mission through:

- Effective risk-based monitoring and enforcement of Reliability Standards through standards development, entity registration, compliance risk assessment, and audits and investigations;
- Informed actions, practices, and decisions of industry participants, regulators, and policymakers through reliability planning, performance analysis, situation awareness, and event analysis; and
- Targeted training and outreach to build a culture of reliability and security throughout the West.

WECC's business philosophy is guided by three principles:

Independence—We serve the public interest and represent what is best for reliability and security within the Western Interconnection with an impartial and unbiased voice.

Perspective—With the purview of the entire Western Interconnection, we are uniquely situated to develop comprehensive and influential work products to assess the reliability and security of the Western Interconnection.

Partnership—To reduce risks to the reliability and security of the Western Interconnection, we collaborate with a broad range of stakeholders from utilities; U.S., Canadian, and Mexican government regulators and energy policy officials; and consumer, public interest, and environmental groups.

WECC's culture enables us to deliver on our critical reliability mission and provide personal and professional fulfillment for our employees. We are transforming the organization to deliver increased value to stakeholders by:

- Increasing our relevance through leadership, proactive efforts, and technical competence and credibility;
- Building strong and constructive relationships with NERC and our regional partners, members, and stakeholders;
- Implementing risk-based concepts to provide consistency for industry, and increased flexibility within a rule-based, regulatory framework; and
- Encouraging forward-looking reliability and security by assessing and advising industry on the design and implementation of effective internal controls.

Membership and Governance

WECC has 299 members¹ divided into the following five Membership Classes:

¹ As of April 21, 2021.



1. Large Transmission Owners;
2. Small Transmission Owners;
3. Electric Line of Business Entities doing business in the Western Interconnection that do not own, control, or operate transmission or distribution lines in the Western Interconnection;
4. End users and entities that represent the interests of end users; and
5. Representatives of state and provincial governments.

WECC membership is open to any person or entity that has an interest in the reliable and secure operation of the Western Interconnection BPS. WECC membership is not required for participation in the WECC Standards Development process.²

WECC is governed by a Board of Directors (Board), composed of nine independent Directors elected by the WECC membership, and WECC's president and CEO as appointed by the Board. The nine Directors are compensated by WECC for their governance and oversight activities.

Four governance committees provide functional oversight of WECC operations:

- Finance and Audit Committee (FAC);
- Governance Committee (GC);
- Human Resources and Compensation Committee (HRCC); and
- Nominating Committee (NC).

Under the direction of the Board, other committees provide technical advice and policy recommendations to the Board³:

- Joint Guidance Committee (JGC);
- Market Interface Committee (MIC);
- Member Advisory Committee (MAC);
- Operating Committee (OC);
- Reliability Assessment Committee (RAC); and
- WECC Standards Committee (WSC).

2022 Key Assumptions and Strategic Goals

The Board recognizes the electric industry is undergoing profound changes nationally, and especially in the West, and other institutions are involved in furthering the understanding of these changes.

² Non-WECC members may participate in standards drafting teams and may vote on Regional Reliability Standards (RRS). See WECC's Reliability Standards Development Procedures.

³ The Stakeholder Engagement Task Force (SETF) recommendations are expected to be brought to the Board in June 2021 and may affect the technical committee structure in 2022. Due to timing, the 2022 budget does not include any budget assumptions related to potential changes. Any technical committee structure changes will be reflected in the 2023 Business Plan and Budget.



WECC proactively addresses issues for which the impacts to the Western Interconnection's reliability and security are less understood (e.g., the risk is unique to the Western Interconnection) or for which WECC and its committees can make a significant contribution to Western BPS reliability and security.

In September 2020, the Board approved WECC's updated Long-Term Strategy (formerly called the Strategic Direction Outline). WECC's Long-Term Strategy builds on the foundation established by the Electric Reliability Organization (ERO) Enterprise Long-Term Strategy. Described more fully below, the ERO Enterprise Long-Term Strategy is representative of continent-wide risks and was vetted through a stakeholder process. WECC's Long-Term Strategy then identifies unique western long-term focus areas to address the reliability and security needs of the Western Interconnection while supporting reliability and security across North America. These two strategy documents, coupled with the ERO Enterprise-driven program areas, will guide the work of WECC in 2022 and beyond.

Additionally, the Board approved the following WECC Reliability Risk Priorities at its June 2020 meeting. These risk priorities serve as input to both committee and program area 2021–2023 work plans. Much of the work related to the WECC Reliability Risk Priorities involves staff time; examples of activities supporting these priorities are noted in the appropriate statutory program area sections of the business plan. The WECC Reliability Risk Priorities will be updated in 2022 and these updated priorities will be used to inform future business plans.

Reliability Risk Priorities

The WECC Reliability Risk Priorities approved in 2020 are further described below.

Resource Adequacy and Performance

Study interconnection-wide future resource adequacy and performance considering:

- The importance of working with resource planners and decision-makers;
- Benefits of resource diversity (geographical and resource type);
- Technology performance during various conditions (e.g., solar during extreme heat); and
- Near-term and longer-term time frames.

Changing Resource Mix

Evaluate the impacts of the changing resource mix considering:

- Large amounts of coal and nuclear plant retirements;
- High use of inverter-based resources;
- Transmission congestion and other deliverability challenges;
- Changes to capacity factors of natural gas resources;



- Market trends and market impacts;
- System stability and voltage challenges; and
- The benefits and challenges associated with energy storage and hybrid resources.

Distribution System and Customer Load Impacts on the BPS

Investigate and develop recommendations to limit the reliability risk to the BPS caused by changes to the distribution system (e.g., growth of distributed energy resources and behind-the-meter storage) and customer loads. This should include operational and planning activities.

Extreme Natural Events

Prepare for and evaluate impacts on the BPS caused by extreme natural events (e.g., wildfires, drought, heavy rain, flooding, extreme cold, pandemics, earthquakes). Share best practices and lessons learned from individual state and utility experiences across the Interconnection.

ERO Enterprise Model and Transformation

The ERO Enterprise strives for consistency when appropriate and recognizes that each Regional Entity addresses reliability in unique ways based on its own challenges and stakeholder needs. The ERO Enterprise model allows Regional Entities to address these unique reliability risks and challenges locally using innovative and distinctive approaches. As the ERO Enterprise continues to mature, it is working on a transformation initiative to further capitalize on resources, enhance communication and collaboration, and ensure grid reliability and security. A set of declarations was established in 2019, committing the ERO Enterprise to:

- Work together as one team and honor each of its roles;
- Actively support ERO Enterprise activities while eliminating unnecessary duplication of work;
- Collaborate to develop clear and consistent guidance across the ERO Enterprise;
- Share information, knowledge, and resources across the ERO Enterprise;
- Develop and share harmonized messages across ERO Enterprise communications; and
- Support innovation, initiative, and the sharing of best practices across the ERO Enterprise.



NERC and the Regional Entities coordinate activities to identify, prioritize, and address risks to reliability. The Regional Entities have similar responsibilities within the ERO Enterprise model:

- Providing input to the overall development of each ERO program area;
- Providing training and development to meet ERO qualifications; and
- Ensuring delegated responsibilities are completed.

Regional Entities also have an obligation to meet professional standards of independence and objectivity and provide the best available expertise for addressing regional risks. This new way of working is encapsulated in this visual.



ERO Enterprise Long-Term Strategy

In 2019, ERO Enterprise leadership came together to revise the [ERO Enterprise Long-Term Strategy](#) as part of an effort to streamline its strategic and operational documents and ensure alignment with the NERC Reliability Issues Steering Committee’s (RISC) currently identified BPS risks. This strategy was acknowledged by the Board on December 4, 2019, as a valuable input to the WECC strategic planning process and recognizes the strategy as a fruitful collaboration by NERC and the Regional Entities. As previously noted, the ERO Long-Term Strategy served as the foundational input for the development of WECC’s Long-Term Strategy.

As part of the business planning and budgeting process, NERC and the Regional Entities identify and discuss program area goals and activities to ensure alignment with the long-term strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. WECC acknowledges and supports the long-term strategy as well as deliverables specific to WECC that are described in each statutory program area in Section A.

2022 Overview of Cost Impacts

WECC’s proposed 2022 statutory budget is \$29,747,000, a \$1,142,000 (4.0%) increase from the 2021 statutory budget. The net increase is mainly due to:

- Reductions in anticipated meeting and travel requirements due to increases in virtual meetings;
- Four new positions;
- Changes in position levels;
- A 3% merit pool;
- Labor float assumption changes based on actual turnover and vacancy rates; and
- Increased subscription-based computer licensing and enterprise security tools.

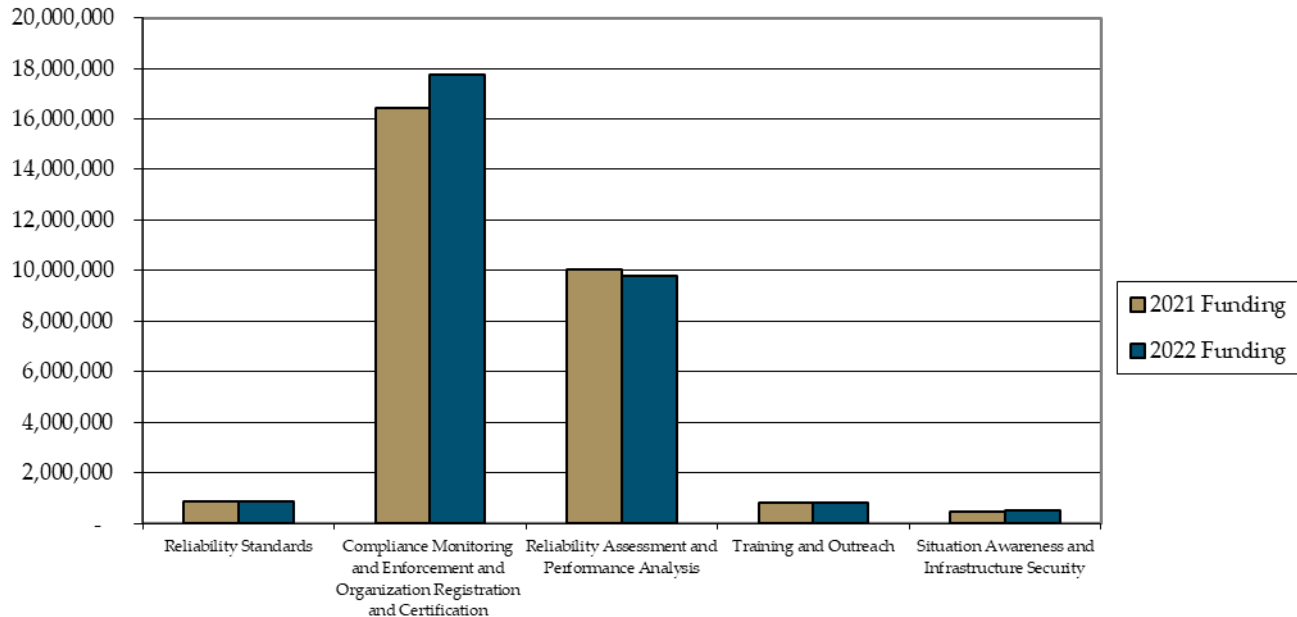
Full-time equivalents (FTE) represent the fractional allocation of a full-time position's cost to one or more functional areas. Headcount (HC) represents either vacant or filled positions. Major drivers of the change between the 2021 and 2022 statutory budgets are as follows:

- Personnel Expenses increase by \$1,417,000 primarily due to four new FTEs, changes in position levels, a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits enrollment rates.
- Meeting Expenses decrease by \$501,000 primarily due to a planned increase in virtual meetings resulting from lessons learned about effective technology use during the COVID-19 pandemic and the change of one in-person Reliability and Security Workshop to a virtual format.
- Office Costs increase by \$181,000 primarily due to an increase in subscription-based computer licensing and enterprise security tools.

The following table and chart present a summary of funding requirements for WECC's primary statutory program areas:

Program	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Reliability Standards	\$ 864,776	\$ 862,682	\$ 885,532	\$ 20,756	2.4%
Compliance Monitoring and Enforcement and Organization Registration and Certification	16,427,492	16,723,361	17,730,856	1,303,364	7.9%
Reliability Assessment and Performance Analysis	10,022,797	9,830,587	9,802,354	(220,443)	(2.2%)
Training and Outreach	811,152	615,896	812,908	1,756	0.2%
Situation Awareness and Infrastructure Security	478,812	490,384	515,247	36,435	7.6%
Total By Program	\$ 28,605,029	\$ 28,522,910	\$ 29,746,899	\$ 1,141,870	4.0%

Comparison of 2021 to 2022 Budgeted Funding Requirements



Peak Reliability Donation

Peak Reliability (Peak) ceased all Reliability Coordinator operations in December 2019 and dissolved as a corporate entity in December 2020. After review and approval by the Board, WECC entered into a donation holdback agreement with Peak prior to its dissolution. Per the agreement, Peak donated \$4,127,000 of its remaining funds to WECC. Of the total amount, \$3,827,000 will be used for projects that are focused on the reliability and security of the Western Interconnection. This portion was recorded as a statutory donation in WECC’s 2020 financial results, with the understanding that FERC approval of this treatment would ultimately be required. Additionally, Peak requested WECC hold \$300,000 for a period of five years to pay any Peak bills that may be presented following Peak’s formal closure on December 31, 2020. This amount was recorded as a non-statutory liability in WECC’s 2020 financial results. The statutory amount is currently included in WECC’s reserves, which are further detailed in Table B-1.

WECC has undertaken an open and transparent process to engage the Board and stakeholders to determine how the funds will be used. All proposals are evaluated to ensure they support WECC’s broad reliability and security mission. They are then discussed with the executive team and



stakeholders via targeted outreach, technical committees, and the Business Plan and Budget (BP&B) process.

To date, several projects have been developed enough to warrant inclusion in the 2022 BP&B. These are:

- The creation of a system planning data management system; and
- Improvements to the Multi-Area Variable Resource Integration Convolution (MAVRIC) resource adequacy assessment tool or procurement of an off-the-shelf probabilistic resource adequacy tool.

For 2022, WECC proposes to use \$400,000 from the Peak Reliability Donation reserve to fund these projects. This process will be followed for future projects, which will be identified in future BP&Bs. For projects not anticipated in the annual BP&B and expected to total more than \$500,000, WECC will seek approval from FERC via separate one-time filings.

WECC requests Commission approval to record the \$3,827,000 Peak donation amount (*i.e.*, net of the \$300,000 holdback for payment of potential post-termination bills) as a statutory donation, to segregate the funds in a separate Peak Reliability Donation reserve account in WECC's accounting system, and to release funds from this reserve account for specific uses as described in an annual BP&B or in a separate filing with the Commission, where appropriate.

Personnel Overview

In the 2022 budget, WECC is adding 4.0 FTEs and realigning some positions within program areas due to evolving organizational needs and priorities. One auditor position is added to the Compliance Monitoring and Enforcement Program (CMEP) to increase staff competency in Transmission Planning and Protection Systems due to reduced reliance on contractor expertise in these areas, and to increase auditor support of entity assistance engagements and other CMEP areas. One mitigation engineer position is added to CMEP, with a focus on Operations and Planning standards, to ensure timely processing of an increasing workload. One internal controls position is added to CMEP due to the increasing demands on WECC's sole internal controls subject matter expert as WECC increases focus on registered entity internal controls design, implementation, and assistance. One external affairs position is added to Legal and Regulatory as WECC continues to expand stakeholder outreach and education efforts across the West. This position will support Reliability Assessment and Performance Analysis (RAPA) staff in the timely drafting and dissemination of influential reliability and security analyses to key audiences.

One position is transferred, through the engineering development program, from RAPA to CMEP for an Entity Risk Assessment engineering position. Due to efficiencies gained and an open position in



General and Administrative (G&A), one position is redeployed to CMEP for a mitigation engineer, with a focus on Critical Infrastructure Protection (CIP) standards.

Several partial FTEs were transferred based on evolving organizational needs: 0.5 FTE is transferred from RAPA to Training and Outreach to support increased initiatives to socialize relevant work products with stakeholders; 0.5 FTE is transferred from G&A to Finance and Accounting to assist with increased financial and administrative tasks; 0.5 FTE is transferred from Legal and Regulatory to G&A due to realignment of job responsibilities.

Details of the additions, transfers, and allocations are discussed in the respective program area sections of the Business Plan and Budget.

Total FTEs by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs* 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
STATUTORY						
Operational Programs						
Reliability Standards	3.00	3.00	3.00	-	3.00	-
Compliance Monitoring and Enforcement and Organization Registration and Certification	62.75	65.75	67.75	-	67.75	5.00
Reliability Assessment and Performance Analysis	37.30	37.30	35.80	-	35.80	(1.50)
Training and Outreach	1.50	1.50	2.00	-	2.00	0.50
Situation Awareness and Infrastructure Security	2.00	2.00	2.00	-	2.00	-
Total FTEs Operational Programs	106.55	109.55	110.55	-	110.55	4.00
Corporate Services						
Technical Committees and Member Forums	-	-	-	-	-	-
General and Administrative	18.70	16.70	17.70	-	17.70	(1.00)
Legal and Regulatory	7.25	7.25	7.75	-	7.75	0.50
Information Technology	9.00	9.00	9.00	-	9.00	-
Human Resources	4.00	4.00	4.00	-	4.00	-
Finance and Accounting	3.00	3.50	3.50	-	3.50	0.50
Total FTEs Corporate Services	41.95	40.45	41.95	-	41.95	-
Total FTEs	148.50	150.00	152.50	-	152.50	4.00

*A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.



2021 Statutory Budget and Projection and 2022 Budget Comparisons

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
STATUTORY					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 25,000,000	\$ 25,000,000	\$ -	\$ 25,000,000	\$ -
Penalties Released ¹	3,499,000	3,499,000	-	5,298,000	1,799,000
Total Statutory Funding	\$ 28,499,000	\$ 28,499,000	\$ -	\$ 30,298,000	\$ 1,799,000
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	430,000	222,400	(207,600)	194,700	(235,300)
Interest	200,000	78,100	(121,900)	109,501	(90,499)
Total Revenue (A)	\$ 29,129,000	\$ 28,799,500	\$ (329,500)	\$ 30,602,201	\$ 1,473,201
Expenses					
Personnel Expenses					
Salaries	\$ 17,447,448	\$ 18,066,266	\$ 618,818	\$ 18,411,644	\$ 964,196
Payroll Taxes	1,144,116	1,238,875	94,759	1,217,683	73,567
Benefits	2,390,953	2,428,133	37,180	2,605,571	214,618
Retirement Costs	1,499,399	1,534,345	34,946	1,663,608	164,209
Total Personnel Expenses	\$ 22,481,916	\$ 23,267,619	\$ 785,703	\$ 23,898,506	\$ 1,416,590
Meeting Expenses					
Meetings & Conference Calls	\$ 585,190	\$ 319,579	\$ (265,611)	\$ 458,044	\$ (127,146)
Travel	1,146,887	201,906	(944,981)	772,654	(374,233)
Total Meeting Expenses	\$ 1,732,077	\$ 521,485	\$ (1,210,592)	\$ 1,230,698	\$ (501,379)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 988,500	\$ 909,018	\$ (79,482)	\$ 1,004,600	\$ 16,100
Office Rent	1,372,346	1,343,760	(28,586)	1,306,912	(65,434)
Office Costs	1,663,299	1,835,597	172,298	1,844,335	181,036
Professional Services	955,800	1,042,332	86,532	1,045,000	89,200
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 4,979,945	\$ 5,130,707	\$ 150,762	\$ 5,200,847	\$ 220,902
Total Direct Expenses	\$ 29,193,938	\$ 28,919,811	\$ (274,127)	\$ 30,330,051	\$ 1,136,113
Indirect Expenses	\$ (687,436)	\$ (652,114)	\$ 35,322	\$ (695,066)	\$ (7,630)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 28,506,502	\$ 28,267,697	\$ (238,805)	\$ 29,634,985	\$ 1,128,483
Change in Net Assets (=A-B)	\$ 622,498	\$ 531,803	\$ (90,695)	\$ 967,216	\$ 344,718
Fixed Asset Additions, excluding Right of Use Assets (C)	\$ 98,527	\$ 255,213	\$ (156,686)	\$ 111,914	\$ 13,387
TOTAL BUDGET (B+C)	\$ 28,605,029	\$ 28,522,910	\$ (395,491)	\$ 29,746,899	\$ 1,141,870
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 523,971	\$ 276,590	\$ 65,991	\$ 855,302	\$ 331,331
FTEs	148.5	150.0	1.5	152.5	4.0
HC	148.0	150.0	2.0	152.0	4.0

¹ Represents the amount released from working capital reserves to offset U.S. assessments as approved by the NERC Board of Trustees and FERC. Actual penalties invoiced in the current reporting year, listed on Table B-2, will be reported as income on the audited financial statements in accordance with Generally Accepted Accounting Principles (GAAP).





Section A

Statutory Programs

Section A—Statutory Programs

Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	3.0	3.0	-
Direct Expenses	\$ 567,386	\$ 584,610	\$ 17,224
Indirect Expenses	\$ 294,615	\$ 297,886	\$ 3,271
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 2,775	\$ 3,036	\$ 261
Total Funding Requirement	\$ 864,776	\$ 885,532	\$ 20,756

Program Scope and Functional Description

The Reliability Standards Program supports the NERC Reliability Standards Program and aids the development of Regional Reliability Standards (RRS), Regional Variances to NERC Reliability Standards, and Regional Criteria.

The Reliability Standards Program also conducts a five-year review of each current RRS, Regional Variance to NERC Reliability Standards, and Regional Criterion. These reviews can result in revisions to the document, retirement of the document, or a finding that no changes are necessary if the document is no longer needed for reliability.

WECC supports the development of Regional Variances to NERC Reliability Standards when it is necessary to address Western Interconnection reliability issues. The variances are necessitated by a physical difference in the BPS or instances in which Western stakeholders want more stringent performances. WECC will only develop an RRS, rather than a variance, when no NERC Reliability Standard exists to address a reliability issue.

Regional Criteria may be necessary to implement, augment, or comply with NERC Reliability Standards, but they are not Reliability Standards themselves and are not enforceable. Regional Criteria may include acceptable operating or planning parameters, guides, or other documents used to enhance BPS reliability.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.



2022 Key Budget Assumptions

- The number of RRS projects will remain low, with most focusing on potential retirement of existing RRSs, due to the subject matter being included in NERC Continent-wide Standards. It is possible, but not likely, that regulatory directives could result in RRS projects.
- Much of the work needed to develop RRSs, Regional Variances to NERC Reliability Standards, and Regional Criteria will continue to be performed by stakeholder volunteers.
- Stakeholder volunteers will continue to staff most NERC Standards drafting teams.
- WECC employees may, at times, participate as drafting team members or observers.
- Integration of renewable resources and related energy storage devices may require new or modified NERC Reliability Standards, RRSs, or Regional Variances to NERC Reliability Standards.
- WECC supports, and will participate in, the enhanced periodic reviews of NERC Reliability Standards and the NERC Standards Grading effort, when appropriate.
- Increases in virtual meetings will decrease travel expenses.

2022 Goals and Deliverables

- Represent the perspective of the Western Interconnection in NERC Continent-wide Reliability Standards or, if necessary, through the development of Regional Variances or RRSs if a NERC Continent-wide Standard addressing a Western Interconnection reliability issue does not exist.
- Ensure the RRSs and Regional Criteria developed using the WECC Reliability Standards Development Procedures meet the needs of the Western stakeholders.
- Ensure development of RRSs and Regional Criteria is performed according to the most recent WECC Reliability Standards Development Procedures.
- Actively participate in the communication of NERC Standards drafting teams' activities to the Western stakeholders.
- Continue to review existing RRSs to determine whether any are candidates for incorporation as a Regional Variance to a NERC Continent-wide Reliability Standard and, if so, coordinate with NERC to address the incorporation during NERC's next enhanced periodic review of the NERC Reliability Standard(s).
- Conduct periodic reviews of existing RRSs and Regional Criteria to improve their content and quality.
- Evaluate information from audit and enforcement experiences and information learned through event analysis to determine whether any new RRSs or revisions to existing RRSs are necessary.



Resource Requirements/Explanation of Significant Changes*Personnel Expenses*

- Personnel Expenses increase by a net of \$22,000 primarily due to a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- No significant changes.

Operating Expenses

- No significant changes.

Fixed Assets

- No significant changes.

See Section B—Supplemental Financial Information for explanations of other variances between the 2021 and 2022 budgets.



Reliability Standards Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
RELIABILITY STANDARDS					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 776,468	\$ 776,468	\$ -	\$ 764,248	\$ (12,220)
Penalties Released	98,517	98,517	-	143,772	45,255
Total Statutory Funding	\$ 874,985	\$ 874,985	\$ -	\$ 908,020	\$ 33,035
Membership Fees	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	5,631	2,139	(3,492)	2,972	(2,659)
Total Revenue (A)	\$ 880,616	\$ 877,124	\$ (3,492)	\$ 910,992	\$ 30,376
Expenses					
Personnel Expenses					
Salaries	\$ 438,520	\$ 446,083	\$ 7,563	\$ 454,624	\$ 16,104
Payroll Taxes	27,803	28,234	431	30,150	2,347
Benefits	41,062	54,605	13,543	42,770	1,708
Retirement Costs	38,151	39,988	1,837	40,461	2,310
Total Personnel Expenses	\$ 545,536	\$ 568,910	\$ 23,374	\$ 568,005	\$ 22,469
Meeting Expenses					
Meetings & Conference Calls	-	-	-	-	-
Travel	17,550	3,921	(13,629)	13,065	(4,485)
Total Meeting Expenses	\$ 17,550	\$ 3,921	\$ (13,629)	\$ 13,065	\$ (4,485)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	-	-	-	-	-
Office Rent	-	-	-	-	-
Office Costs	4,300	3,384	(916)	3,540	(760)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 4,300	\$ 3,384	\$ (916)	\$ 3,540	\$ (760)
Total Direct Expenses	\$ 567,386	\$ 576,215	\$ 8,829	\$ 584,610	\$ 17,224
Indirect Expenses	\$ 294,615	\$ 279,478	\$ (15,137)	\$ 297,886	\$ 3,271
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 862,001	\$ 855,693	\$ (6,308)	\$ 882,496	\$ 20,495
Change in Net Assets (=A-B)	\$ 18,615	\$ 21,431	\$ 2,816	\$ 28,496	\$ 9,881
Fixed Assets, excluding Right of Use Assets (C)	\$ 2,775	\$ 6,989	\$ 4,214	\$ 3,036	\$ 261
TOTAL BUDGET (B+C)	\$ 864,776	\$ 862,682	\$ (2,094)	\$ 885,532	\$ 20,756
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 15,840	\$ 14,442	\$ (1,398)	\$ 25,460	\$ 9,620
FTEs	3.0	3.0	-	3.0	-
HC	3.0	3.0	-	3.0	-



Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance Monitoring and Enforcement and Organization Registration and Certification Program (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	62.8	67.8	5.0
Direct Expenses	\$ 10,207,096	\$ 10,935,018	\$ 727,922
Indirect Expenses	\$ 6,162,371	\$ 6,727,252	\$ 564,881
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 58,025	\$ 68,586	\$ 10,561
Total Funding Requirement	\$ 16,427,492	\$ 17,730,856	\$ 1,303,364

Program Scope and Functional Description

The CMEP is implemented by Reliability and Security Oversight staff, who are independent of all users, owners, and operators of the BPS.

To accomplish its objectives, staff is divided into five main areas:

- Organization Registration⁴;
- Entity Risk Assessment;
- Entity Monitoring;
- Enforcement and Mitigation; and
- Program Analysis and Administration.

WECC will continue to conduct its monitoring and enforcement activities according to the Board-endorsed Regulatory Philosophy, the key tenets of which are:

- Be an informed regulator;
- Identify top risks to reliability and security;
- Exercise discretion responsibly; and
- Enforce fairly.

Staff monitors and enforces the FERC-approved NERC Reliability Standards across 398⁵ registered owners, operators, and users of the BPS through a variety of risk-based activities.

⁴ At WECC, certification activities are performed in the RAPA program area.

⁵ As of April 21, 2021.



Staff will support ERO Enterprise-level initiatives, which include the following activities:

- Regional Risk Assessments;
- Compliance Oversight Plan (COP) and Inherent Risk Assessments (IRA);
- Organization Registration;
- Mitigation plan reviews, acceptance, approvals, and verification;
- Review of potential noncompliance to assess root cause and risk to BPS;
- Processing and disposition of self-logged, minimal-risk issues;
- Enforcement activities according to established risk-based approaches;
- Review and validation of periodic data submittals;
- Internal compliance program assessments;
- Internal Controls Program reviews;
- Compliance monitoring activities, such as audits, spot-checks, self-certifications, investigations, and assessments of complaints; and
- Bulk Electric System (BES) Exception Requests.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.

Compliance in Alberta, British Columbia, and Mexico

Alberta and British Columbia, Canada, and a portion of Baja California Norte, Mexico, are all part of the Western Interconnection and have adopted or are adopting mandatory Reliability Standards based on FERC-approved Standards. WECC has entered into agreements with the Alberta Market Surveillance Administrator (MSA), the British Columbia Utilities Commission (BCUC), and Mexico's Comisión Reguladora de Energía (CRE), under which WECC performs various compliance monitoring and enforcement activities to help ensure reliability across international borders within the Western Interconnection.

2022 Key Budget Assumptions

- Address known and future reliability risks by monitoring the FERC-approved NERC Reliability Standards for applicable entities through audits, investigations, self-certifications, or spot-checks. Apply a risk-based approach that covers and ensures all audit, on-site and off-site, and post-audit activities are completed according to the NERC Rules of Procedure and the CMEP within the United States. With respect to non-U.S. jurisdictions, monitor compliance according to the approved agreements and applicable compliance monitoring programs with Canadian and Mexican authorities.



- Develop and implement compliance oversight plans for registered entities. The plans focus on relevant risks, including consideration of IRAs, entity performance history, other operational risks based on performance considerations, and the maturity of internal controls.
- Continue working in consultation with the international compliance enforcement authorities to determine which elements of the risk-based CMEP should be incorporated in the respective programs for international entities. Currently, WECC does not conduct IRAs or develop COPs for international entities.
- Resource allocation will continue for activities associated with registration. Participate in NERC-led, centralized review panel sessions as part of the application process for materiality tests of the risk-based registration process outlined in Appendix 5A of the NERC Rules of Procedure. Continue to review, assess, validate, and submit registration recommendations to NERC for new registrations, partial deactivations, transfer of access, and full deregistration changes affecting the NERC Compliance Registry (NCR).
- Fully support ERO Enterprise efforts and activities to evaluate business practices, tools, consistency, implementation, and guidance within the risk-based CMEP. Provide feedback to the ERO Enterprise on emerging and existing risks, with an emphasis on standards development, standards modification, audit and monitoring approaches, and potential gaps.
- Use the results of the Regional Risk Assessment (RRA) to provide input in building areas of focus in the ERO CMEP Implementation Plan.
- Any costs related to a hearing that may arise will be funded through working capital reserves.
- WECC does not foresee any new or revised Standards in 2022 that would require increased resources.
- The Align tool will be used for audits starting in May 2022.
- One new auditor position is added, to address skills gaps and emerging risks, due to decreased reliance on contract labor.
- One new mitigation engineer position is added, with a focus on Operations and Planning standards to ensure timely processing of an increasing workload.
- One new internal controls position is added due to the increasing demands on WECC's sole internal controls subject matter expert, as WECC increases focus on registered entity internal controls design, implementation, and assistance.
- One position is transferred from G&A for a mitigation engineer position with a focus on Critical Infrastructure Protection (CIP) standards.
- One position is transferred, via the engineering development program, from RAPA for an Entity Risk Assessment engineering position.
- Increases in virtual meetings and changes in audit logistics will decrease travel expenses.

2022 Goals and Deliverables

- Continue to support the transition to the Align tool by providing outreach and training to staff and registered entities.
- Process and complete organization registration request reviews, validations, and recommendations to NERC according to risk-based registration activities and initiatives.
- Process all BES Exception submittals according to Appendix 5C.
- Participate in ERO Enterprise collaboration groups to ensure consistency in processing registration requests according to the NERC Rules of Procedure outlined in Appendix 5B (Statement of Compliance Registry Criteria).
- Monitor and enforce compliance with mandatory standards according to the WECC-NERC Delegation Agreement, including the Rules of Procedure and the CMEP within the U.S. Monitor compliance according to the approved agreements with respect to non-U.S. jurisdictions, and applicable compliance monitoring programs with Canadian and Mexican authorities.
- Complete 19 audits with an on-site component, as required by the NERC Rules of Procedure and agreements with Canadian jurisdictions. Additional monitoring activities (e.g., audits, spot-checks, self-certifications with supporting evidence) will be scheduled based on risk to the BES.
- Complete initial IRAs and COPs for all new registrations in 2022 and refresh IRAs and COPs as needed for changes in the entity risk profile.
- Participate in ERO Enterprise collaboration groups to build consistency in long-term planning and risk-based monitoring.
- Gather and review risk reports and operations information to update WECC's RRA of the Western Interconnection.
- Work with registered entities in the Western Interconnection to promote a strong culture of reliability and security by focusing on known and future risks.
- Promote the benefits of internal controls programs and their impact on BPS reliability with registered entities.
- Represent the Western Interconnection in the development of NERC and regional initiatives.
- Conduct industry outreach in various forums—webinars, conferences, and entity-specific engagements—to support ERO Enterprise activities and priorities.
- Monitor and manage enforcement measures and metrics in support of the ERO Enterprise Long-Term Strategy, including caseload index, violation aging, and mitigation plan aging; and collaborate with the ERO Enterprise to develop better measures of program effectiveness.
- Continue working with NERC and the other Regional Entities to shape and refine the ERO Enterprise enforcement philosophy that supports uniform, repeatable, transparent, and reliability-focused approaches.



- Conduct initial evaluation of any new noncompliance, and the resulting resolution of enforcement actions, in a timely manner using a reliability risk-based focus. Ensure enforcement discretion is consistent with NERC directives and FERC Orders, rules, and regulations.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$1,125,000 primarily due to three new positions, two positions transferred in from other program areas, a budgeted 3% merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- Travel decreases by \$297,000 primarily due to planned reductions in travel requirements for audit teams and support staff and a planned increase in virtual meetings.

Operating Expenses

- Office Costs decrease by a net of \$97,000 primarily due to the implementation of the Align tool and the resulting decrease in webCDMS licensing fees.

Fixed Assets

- Fixed Assets increase by a net of \$11,000 primarily due to fixed asset additions in Corporate Services. Corporate Services expenses are allocated to statutory and non-statutory program areas based on FTEs.

See Section B—Supplemental Financial Information for explanations of other variances between the 2021 and 2022 budgets.



Compliance Monitoring and Enforcement and Organization Registration and Certification Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
COMPLIANCE MONITORING AND ENFORCEMENT AND ORGANIZATION REGISTRATION AND CERTIFICATION					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 14,549,967	\$ 14,549,967	\$ -	\$ 14,926,708	\$ 376,741
Penalties Released	2,060,650	2,060,650	-	3,246,852	1,186,202
Total Statutory Funding	\$ 16,610,617	\$ 16,610,617	\$ -	\$ 18,173,560	\$ 1,562,943
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	-	-	-	-	-
Interest	117,785	46,874	(70,911)	67,107	(50,678)
Total Revenue (A)	\$ 16,728,402	\$ 16,657,491	\$ (70,911)	\$ 18,240,667	\$ 1,512,265
Expenses					
Personnel Expenses					
Salaries	\$ 7,314,902	\$ 8,005,509	\$ 690,607	\$ 8,152,114	\$ 837,212
Payroll Taxes	504,576	583,722	79,146	550,760	46,184
Benefits	807,824	776,872	(30,952)	953,931	146,107
Retirement Costs	629,057	694,631	65,574	724,861	95,804
Total Personnel Expenses	\$ 9,256,359	\$ 10,060,734	\$ 804,375	\$ 10,381,666	\$ 1,125,307
Meeting Expenses					
Meetings & Conference Calls	\$ 3,380	\$ 1,100	\$ (2,280)	\$ -	\$ (3,380)
Travel	654,743	32,640	(622,103)	357,990	(296,753)
Total Meeting Expenses	\$ 658,123	\$ 33,740	\$ (624,383)	\$ 357,990	\$ (300,133)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ 42,000	\$ 42,000	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	292,614	298,582	5,968	195,362	(97,252)
Professional Services	-	9,913	9,913	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 292,614	\$ 350,495	\$ 57,881	\$ 195,362	\$ (97,252)
Total Direct Expenses	\$ 10,207,096	\$ 10,444,969	\$ 237,873	\$ 10,935,018	\$ 727,922
Indirect Expenses	\$ 6,162,371	\$ 6,125,217	\$ (37,154)	\$ 6,727,252	\$ 564,881
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 16,369,467	\$ 16,570,186	\$ 200,719	\$ 17,662,270	\$ 1,292,803
Change in Net Assets (=A-B)	\$ 358,935	\$ 87,305	\$ (271,630)	\$ 578,397	\$ 219,462
Fixed Assets, excluding Right of Use Assets (C)	\$ 58,025	\$ 153,175	\$ 95,150	\$ 68,586	\$ 10,561
TOTAL BUDGET (B+C)	\$ 16,427,492	\$ 16,723,361	\$ 295,869	\$ 17,730,856	\$ 1,303,364
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 300,910	\$ 300,910	\$ (366,780)	\$ 509,811	\$ 208,901
FTEs	62.8	65.8	3.0	67.8	5.0
HC	62.0	65.0	3.0	67.0	5.0



Reliability Assessment and Performance Analysis

Reliability Assessment and Performance Analysis (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	37.3	35.8	(1.5)
Direct Expenses	\$ 6,325,255	\$ 6,211,343	\$ (113,912)
Indirect Expenses	\$ 3,663,051	\$ 3,554,769	\$ (108,282)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 34,491	\$ 36,242	\$ 1,751
Total Funding Requirement	\$ 10,022,797	\$ 9,802,354	\$ (220,443)

Program Scope and Functional Description

RAPA staff conducts a variety of assessments, analyses, and studies essential to the reliable planning and operation of the BPS in the Western Interconnection. Staff also compiles and distributes data and information used by stakeholders to help with regional and local planning studies. These integrated assessment and planning efforts enhance WECC's overall ability to assess potential reliability risks in the Western Interconnection.

The RAPA Program is organized into three departments:

1. The **Performance Analysis and Resource Adequacy Department** analyzes the historical operation and performance of the Western Interconnection. The analyses are the building blocks to assess interconnection-wide risks and vulnerabilities. The information produced helps to identify best practices and mitigate potential risk. The department also conducts forward-looking resource adequacy assessments using deterministic and probabilistic methods.
2. The **Events Analysis Department** analyzes system conditions and events that affect or may affect the reliable operation of the BPS. The department's activities ensure that stakeholders, NERC, and FERC are well-informed of system events, emerging trends, lessons learned, and expected actions affecting BPS reliability.

3. The **Reliability Planning Department** develops and maintains WECC’s integrated capability to study Western Interconnection reliability issues for the near- and long-term planning horizon. The group is the NERC-designated, interconnection-wide model builder under the MOD-032 Reliability Standard. The department develops the planning tools and datasets that support transmission planning and performs special studies on priority reliability issues as they are identified. The studies, performed in close collaboration with the technical committees, consider both system adequacy and system stability.

The RAPA Program also supports the development of NERC’s RAPA activities through targeted data gathering and participation in the Summer, Winter, Long-Term Reliability, and Special assessments.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.

2022 Key Budget Assumptions

- Staff and technical committees continue to focus on assessment activities that address the WECC Reliability Risk Priorities approved by the Board in June 2020 and any updates to be approved in 2022.
- Staff will be responsive to unanticipated emerging reliability risks and will work with stakeholders to develop timely and accurate reliability analyses.
- WECC will implement the recommendations from the Stakeholder Engagement Task Force (SETF), which will increase the engagement of stakeholder subject matter experts in technical committees and in assessments led by staff.
- The SETF recommendations are expected to be brought to the Board in June 2021 and may affect the technical committee structure in 2022. Due to the timing, the 2022 budget does not include any budget assumptions related to potential changes. Any technical committee structure changes will be reflected in the 2023 Business Plan and Budget.
- Building on the NERC RISC Report, staff and stakeholders will continue to play a leadership role in identifying reliability challenges specific to the Western Interconnection.
- New grid technologies and power system changes will create a need for modeling enhancements and data collection.
- One position is transferred, via the engineering development program, to CMEP for an Entity Risk Assessment engineering position.
- 0.5 FTE is transferred to Training and Outreach to support increased initiatives to socialize relevant work products with stakeholders.
- An increase in virtual meetings will decrease travel and meeting expenses.



2022 Goals and Deliverables

- Continue the three-year planning cycle with the JGC to align staff and technical committee work plans in support of the WECC Reliability Risk Priorities.
- Coordinate with stakeholders and NERC to ensure unanticipated emerging reliability challenges are identified and addressed.
- Prepare interconnection-wide power flow and stability base cases.
- Identify and apply lessons learned from the 2030 Anchor Data Set (ADS) development and develop the 2032 ADS.
- Facilitate dynamic model and power flow tool development, focusing on new technology resources and concepts like energy storage and dynamic line ratings, respectively.
- Continue to develop and maintain databases for production cost, resource adequacy, and other models.
- Collect and make short-circuit models available for industry coordination.
- Create and model alternate plausible futures for the Western Interconnection, considering technical, economic, policy, and other drivers.
- Explore and implement technology solutions for enhanced data collection, validation, and storage.
- Provide technical leadership, insight, and guidance to analyze the effects of the changing resource mix and load characteristics. Recommend suggestions to minimize reliability risks or improve tools and modeling capabilities.
- Conduct reliability assessments that evaluate the adequacy and stability of the BPS in the planning horizon, including WECC's Western Assessment of Resource Adequacy and support the NERC Long-Term Reliability Assessment and incorporated probabilistic assessment, Summer Reliability Assessment, and Winter Reliability Assessment.
- Conduct Special Reliability Assessments as needed for high-impact, low-frequency events like geomagnetic disturbances or prolonged droughts.
- Assess the effectiveness of the Western Interconnection Under-Frequency Load Shedding Plan.
- Use data from actual system disturbances to validate power flow and stability base case models.
- Publish transmission maps of the Western Interconnection.
- Facilitate the Project Coordination, Path Rating, and Progress Report processes.
- Verify and submit NERC Transmission Availability Data System (TADS), Generator Availability Data System (GADS), Demand-Response Availability Data System (DADS), and Misoperation Information Data Analysis System (MIDAS) filings.
- Assess entity performance through site visits or short surveys regarding key operational or planning practices to identify and share best practices and potential risks to reliability.
- Evaluate historical system performance trends to identify reliability risk metrics, key indicators, and potential improvement strategies. Publish results in reports like the State of the

Interconnection and work with technical committees to engage in proactive reliability improvement activities.

- Identify key vulnerability issues and work with stakeholders to address them; for example: physical and cybersecurity, situation awareness and coordination across neighboring systems, human performance, and equipment misoperations or failures.
- Complete event analysis reports and develop and educate stakeholders on lessons learned to minimize the possibility and reoccurrence of significant events.
- Develop reliability guidelines, technical white papers and reports, and reference documents to address emerging issues, operational risks, and industry concerns related to system operations.
- Ensure the Western Interconnection is represented in reliability matters by participating in regional and national stakeholder forums.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$100,000 primarily due to the net of one FTE transferred to CMEP, 0.5 FTE transferred to Training and Outreach, a budgeted 3% merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- Meetings & Conference Calls decrease by a net of \$16,000 primarily due to planned increases in virtual meetings.
- Travel decreases by a net of \$62,000 primarily due to planned increases in virtual meetings.

Operating Expenses

- Consultants & Contracts decrease by a net of \$142,000 primarily due to the completion of one-time 2021 study work and the addition of MAVRIC probabilistic tool updates.

Fixed Assets

- No significant changes.

See Section B—Supplemental Financial Information for explanations of other variances between the 2021 and 2022 budgets.



Reliability Assessment and Performance Analysis Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
RELIABILITY ASSESSMENT AND PERFORMANCE ANALYSIS					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 8,911,479	\$ 8,911,479	\$ -	\$ 8,333,059	\$ (578,420)
Penalties Released	1,224,896	1,224,896	-	1,715,680	490,784
Total Statutory Funding	\$ 10,136,375	\$ 10,136,375	\$ -	\$ 10,048,739	\$ (87,636)
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	-	-	-	-	-
Interest	70,014	26,592	(43,422)	35,460	(34,554)
Total Revenue (A)	\$ 10,206,389	\$ 10,162,967	\$ (43,422)	\$ 10,084,199	\$ (122,190)
Expenses					
Personnel Expenses					
Salaries	\$ 4,314,753	\$ 4,382,744	\$ 67,991	\$ 4,381,226	\$ 66,473
Payroll Taxes	295,396	317,896	22,500	292,557	(2,839)
Benefits	491,141	552,418	61,277	512,784	21,643
Retirement Costs	374,735	399,431	24,696	389,613	14,878
Total Personnel Expenses	\$ 5,476,025	\$ 5,652,489	\$ 176,464	\$ 5,576,180	\$ 100,155
Meeting Expenses					
Meetings & Conference Calls	\$ 45,180	\$ 13,955	\$ (31,225)	\$ 29,476	\$ (15,704)
Travel	210,070	56,810	(153,260)	148,062	(62,008)
Total Meeting Expenses	\$ 255,250	\$ 70,765	\$ (184,485)	\$ 177,538	\$ (77,712)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 350,000	\$ 285,663	\$ (64,337)	\$ 208,100	\$ (141,900)
Office Rent	-	-	-	-	-
Office Costs	243,980	259,936	15,956	249,525	5,545
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 593,980	\$ 545,599	\$ (48,381)	\$ 457,625	\$ (136,355)
Total Direct Expenses	\$ 6,325,255	\$ 6,268,853	\$ (56,402)	\$ 6,211,343	\$ (113,912)
Indirect Expenses	\$ 3,663,051	\$ 3,474,838	(188,213)	\$ 3,554,769	\$ (108,282)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 9,988,306	\$ 9,743,691	\$ (244,615)	\$ 9,766,112	\$ (222,194)
Change in Net Assets (=A-B)	\$ 218,083	\$ 419,276	\$ 201,193	\$ 318,087	\$ 100,004
Fixed Assets, excluding Right of Use Assets (C)	\$ 34,491	\$ 86,896	\$ 52,405	\$ 36,242	\$ 1,751
TOTAL BUDGET (B+C)	\$ 10,022,797	\$ 9,830,587	\$ (192,210)	\$ 9,802,354	\$ (220,443)
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 183,592	\$ 332,380	\$ 148,788	\$ 281,845	\$ 98,253
FTEs	37.3	37.3	-	35.8	(1.5)
HC	38.0	38.0	-	36.0	(2.0)



Training and Outreach

Training and Outreach (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	1.5	2.0	0.5
Direct Expenses	\$ 662,457	\$ 612,293	\$ (50,164)
Indirect Expenses	\$ 147,308	\$ 198,590	\$ 51,282
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 1,387	\$ 2,025	\$ 638
Total Funding Requirement	\$ 811,152	\$ 812,908	\$ 1,756

Program Scope and Functional Description

The Training and Outreach Program provides outreach, education, and training on Reliability Standards, compliance topics, improvement of compliance programs, reliability planning and performance analysis, grid operations and security, and human performance.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.

2022 Key Budget Assumptions

- WECC will host a similar number of training and outreach events as in prior years.
- Virtual Training and Outreach formats will be used where appropriate.
- WECC will continue to use partnerships and collaboration with the ERO Enterprise where appropriate to decrease costs.
- 0.5 FTE is transferred from RAPA to support increased training initiatives to socialize relevant work products with stakeholders.

2022 Goals and Deliverables

- Deliver monthly Compliance Open Webinars to educate stakeholders on various oversight activities.
- Conduct webinars and workshops to expand awareness of reliability planning tools, modeling capabilities, and study results.



- Deliver quarterly Grid Fundamentals Workshops to teach people who are new to the industry how the electric power system works, how it is managed, and how to better understand reliability issues.
- Deliver two Reliability and Security Workshops to provide targeted and in-depth, risk-based outreach to address and mitigate key risks to reliability and security in the Western Interconnection. One of the Reliability and Security Workshops will be held virtually to retain the increased engagement seen during the pandemic. Specific topics include:
 - Lessons learned and process improvement for implementation of risk-based concepts in the CMEP;
 - Enforcement trends and statistics; and
 - Information on audit approach for upcoming standards changes and transitions.
- Deliver one Human Performance conference, co-hosted with NERC.
- Deliver educational webinars and workshops to further enhance the reliability of the Western Interconnection. Topics include:
 - Internal Controls Practices Group trainings;
 - Reliability planning tools and modeling capabilities, including base case and production cost model studies;
 - Contingency studies and analyses;
 - Scenario planning and regulatory issues and trends; and
 - Event analysis.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$104,000 primarily due to the net of 0.5 FTE transferred from RAPA, a budgeted 3% merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- Meetings & Conference Calls decrease by \$134,000 primarily due to holding one Reliability and Security Workshop virtually, to increase engagement and to accommodate circumstances related to the pandemic.

Operating Expenses

- Office Costs decrease by \$15,000 primarily due to the conversion of one Reliability and Security Workshop to a virtual format and the resulting reduction of merchant credit card and third-party processing fees.



Fixed Assets

- No significant changes.

See Section B—Supplemental Financial Information for explanations of other variances between the 2021 and 2022 budgets.



Training and Outreach Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
TRAINING AND OUTREACH					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 343,935	\$ 343,935	\$ -	\$ 543,752	\$ 199,817
Penalties Released	49,259	49,259	-	95,848	46,589
Total Statutory Funding	\$ 393,194	\$ 393,194	\$ -	\$ 639,600	\$ 246,406
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	430,000	222,400	(207,600)	194,700	(235,300)
Interest	2,816	1,069	(1,747)	1,981	(835)
Total Revenue (A)	\$ 826,010	\$ 616,663	\$ (209,347)	\$ 836,281	\$ 10,271
Expenses					
Personnel Expenses					
Salaries	\$ 154,906	\$ 182,063	\$ 27,157	\$ 235,668	\$ 80,762
Payroll Taxes	11,233	12,510	1,277	15,911	4,678
Benefits	19,387	17,011	(2,376)	30,201	10,814
Retirement Costs	13,463	14,575	1,112	20,974	7,511
Total Personnel Expenses	\$ 198,989	\$ 226,159	\$ 27,170	\$ 302,754	\$ 103,765
Meeting Expenses					
Meetings & Conference Calls	\$ 410,980	\$ 206,740	\$ (204,240)	\$ 277,146	\$ (133,834)
Travel	11,720	8,900	(2,820)	6,995	(4,725)
Total Meeting Expenses	\$ 422,700	\$ 215,640	\$ (207,060)	\$ 284,141	\$ (138,559)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	40,768	30,864	(9,904)	25,398	(15,370)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 40,768	\$ 30,864	\$ (9,904)	\$ 25,398	\$ (15,370)
Total Direct Expenses	\$ 662,457	\$ 472,663	\$ (189,794)	\$ 612,293	\$ (50,164)
Indirect Expenses	\$ 147,308	\$ 139,739	\$ (7,569)	\$ 198,590	\$ 51,282
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 809,765	\$ 612,402	\$ (197,363)	\$ 810,883	\$ 1,118
Change in Net Assets (=A-B)	\$ 16,245	\$ 4,261	\$ (11,984)	\$ 25,398	\$ 9,153
Fixed Assets, excluding Right of Use Assets (C)	\$ 1,387	\$ 3,494	\$ 2,107	\$ 2,025	\$ 638
TOTAL BUDGET (B+C)	\$ 811,152	\$ 615,896	\$ (195,256)	\$ 812,908	\$ 1,756
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 14,858	\$ 767	\$ (14,091)	\$ 23,373	\$ 8,515
FTEs	1.5	1.5	-	2.0	0.5
HC	1.0	1.0	-	1.0	-



Situation Awareness and Infrastructure Security

Situation Awareness and Infrastructure Security (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	2.0	2.0	-
Direct Expenses	\$ 280,553	\$ 314,631	\$ 34,078
Indirect Expenses	\$ 196,410	\$ 198,591	\$ 2,181
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 1,849	\$ 2,025	\$ 176
Total Funding Requirement	\$ 478,812	\$ 515,247	\$ 36,435

Program Scope and Functional Description

The Situation Awareness and Infrastructure Security (SAIS) Program maintains near-real-time awareness about the conditions and significant occurrences on the BPS in the Western Interconnection, with the objective of recognizing conditions and situations that could impact the reliability and security of the BPS. WECC has access to limited near-real-time data through the Situation Awareness for FERC, NERC, and the Regions (SAFNR) tool, and the University of Tennessee Frequency Monitoring Network (FNET).

The SAIS Program is part of WECC's delegation-related activities and does not duplicate the real-time situation awareness and operating coordination provided by other entities within the Western Interconnection. WECC's role is to understand system issues when they emerge and coordinate with relevant parties (typically NERC and FERC) about the conditions of the BPS. Through this coordination, WECC identifies patterns and trends that will help build a stronger and more resilient system. Staff respond to events by providing coordination, assistance, and communication with the Reliability Coordinators, stakeholders, and NERC SAIS personnel. SAIS work also feeds into event analysis capabilities.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.

2022 Key Budget Assumptions

- Cybersecurity and physical security threats will continue to increase as the grid evolves. WECC will work with stakeholders and support the ERO Enterprise Security Initiative and E-ISAC to focus on security outreach and education.



- The SAFNR tool and other SAIS tools will be used to provide situation awareness capabilities.
- WECC will support NERC and FERC’s efforts for situation awareness of current system conditions.
- WECC will maximize sharing of reliability and security data, within agreed parameters, and insights from Events Analysis, including near-misses, to enhance understanding of reliability and security issues, promote operational excellence, promptly share best practices and lessons learned, and engage third-party experts to expand capabilities and resources applied to critical reliability and security issues.
- Technical stakeholder groups will support the development of lessons learned and recommendations from events and identified reliability and security risks.

2022 Goals and Deliverables

- Monitor system events, collect information, and coordinate prompt distribution of updates on system events to industry stakeholders and NERC SAIS personnel.
- Work with NERC to monitor system data, weather, and technological developments to understand trends that affect reliability for the near- and long-term horizons.
- Participate in daily NERC SAIS calls to coordinate the communication of critical information.
- Support efforts and work to develop and enhance ways to improve the use of SAFNR and other tools to further support SAIS.
- Represent the Western Interconnection in reliability and security matters by participating in various NERC committees and industry forums.
- Participate, as appropriate, in periodic wide-area security exercises (e.g., GridEx, Monitoring and Situation Awareness Workshop, NERC Alerts).
- Promote rapid and appropriate sharing of situation awareness information to support critical infrastructure security.
- Enhance engagement with Western stakeholders to improve the coordination and sharing of security information.
- Work with stakeholders, government agencies, NERC, and the E-ISAC to ensure appropriate reliability and security event information is promptly disseminated to industry entities.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$24,000 primarily due to a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.



Meeting Expenses

- No significant changes.

Operating Expenses

- No significant changes.

Fixed Assets

- No significant changes.

See Section B—Supplemental Financial Information for explanations of other variances between the 2021 and 2022 budgets.



Situation Awareness and Infrastructure Security Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
SITUATION AWARENESS AND INFRASTRUCTURE SECURITY					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ 418,151	\$ 418,151	\$ -	\$ 432,233	\$ 14,082
Penalties Released	65,678	65,678	-	95,848	30,170
Total Statutory Funding	\$ 483,829	\$ 483,829	\$ -	\$ 528,081	\$ 44,252
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	-	-	-	-	-
Interest	3,754	1,426	(2,328)	1,981	(1,773)
Total Revenue (A)	\$ 487,583	\$ 485,255	\$ (2,328)	\$ 530,062	\$ 42,479
Expenses					
Personnel Expenses					
Salaries	\$ 218,004	\$ 229,164	\$ 11,160	\$ 238,519	\$ 20,515
Payroll Taxes	16,347	17,089	742	16,482	135
Benefits	27,236	32,058	4,822	28,447	1,211
Retirement Costs	18,966	20,445	1,479	21,228	2,262
Total Personnel Expenses	\$ 280,553	\$ 298,756	\$ 18,203	\$ 304,676	\$ 24,123
Meeting Expenses					
Meetings & Conference Calls	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	-	-	-	7,120	7,120
Total Meeting Expenses	\$ -	\$ -	\$ -	\$ 7,120	\$ 7,120
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	651	651	2,835	2,835
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ -	\$ 651	\$ 651	\$ 2,835	\$ 2,835
Total Direct Expenses	\$ 280,553	\$ 299,407	\$ 18,854	\$ 314,631	\$ 34,078
Indirect Expenses	\$ 196,410	\$ 186,318	\$ (10,092)	\$ 198,591	\$ 2,181
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 476,963	\$ 485,725	\$ 8,762	\$ 513,222	\$ 36,259
Change in Net Assets (=A-B)	\$ 10,620	\$ (470)	\$ (11,090)	\$ 16,840	\$ 6,220
Fixed Assets, excluding Right of Use Assets (C)	\$ 1,849	\$ 4,659	\$ 2,810	\$ 2,025	\$ 176
TOTAL BUDGET (B+C)	\$ 478,812	\$ 490,384	\$ 11,572	\$ 515,247	\$ 36,435
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 8,771	\$ (5,129)	\$ (13,900)	\$ 14,815	\$ 6,044
FTEs	2.0	2.0	-	2.0	-
HC	1.0	1.0	-	2.0	1.0



Corporate Services

Corporate Services (in whole dollars) Direct Expenses and Fixed Assets						
	2021 Budget	2022 Budget	Increase (Decrease)	FTEs 2021 Budget	FTEs 2022 Budget	Increase (Decrease)
Committee and Member Forums	\$ 7,300	\$ 47,380	\$ 40,080	-	-	-
General and Administrative	\$ 5,857,427	\$ 5,429,771	\$ (427,656)	18.70	17.70	(1.00)
Legal and Regulatory	\$ 1,405,140	\$ 1,665,035	\$ 259,895	7.25	7.75	0.50
Information Technology	\$ 2,209,527	\$ 2,827,948	\$ 618,421	9.00	9.00	-
Human Resources	\$ 1,235,141	\$ 1,232,199	\$ (2,942)	4.00	4.00	-
Accounting and Finance	\$ 541,656	\$ 588,821	\$ 47,165	3.00	3.50	0.50
Total Corporate Services*	\$ 11,256,191	\$ 11,791,155	\$ 534,964	41.95	41.95	-

*WECC's 2022 Corporate Services budget (expenses plus fixed assets) is \$11,791,155, of which \$702,152 is allocated to non-statutory activities. As a result of the allocation to the non-statutory function, the Corporate Services expenses included in the 2022 statutory budget are \$11,089,002, which is a \$526,720 increase from the 2021 budget.

Program Scope and Functional Description

Corporate Services encompasses the following program areas and includes all business and administrative functions of the organization:

- Technical Committees and Member Forums;
- General and Administrative;
- Legal and Regulatory;
- Information Technology;
- Human Resources; and
- Finance and Accounting.

These functions are necessary for the existence and operation of the organization and support the performance of statutory activities. This area provides executive leadership; communications and external affairs; and administrative support for staff, committees, and members.

As part of the business planning and budgeting process, NERC and the Regional Entities ensure alignment with the ERO Enterprise Long-Term Strategy and harmonization of business processes and operations across the ERO Enterprise where appropriate. Deliverables in this program area support both the WECC and ERO Enterprise long-term strategies.

Method for Allocation of Corporate Services Expenses to Programs

Corporate Services expenses are allocated to statutory and non-statutory program areas based on FTEs.



Technical Committees and Member Forums

Program Scope and Functional Description

The Standing Committees (OC, MIC, and RAC) and the JGC provide forums for members and other interested stakeholders to identify, assess, and mitigate reliability risks and operating concerns.

2022 Key Budget Assumptions

- The Standing Committees meet three times each year. The Standing Committees meet off site once every other year, in even years. In 2022, two meetings will be hosted in Salt Lake City and one will be hosted off site.
- The SETF recommendations are expected to be brought to the Board in June 2021 and may affect the technical committee structure in 2022. Due to timing, the 2022 budget does not include any budget assumptions related to potential changes. Any technical committee structure changes will be reflected in the 2023 Business Plan and Budget.

2022 Goals and Deliverables

- Support and coordinate the meeting logistics for the Standing Committees.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- No significant changes.

Meeting Expenses

- Meetings & Conference Calls increase by \$38,000 due to one Standing Committee meeting being held off-site.

Operating Expenses

- No significant changes.

Fixed Assets

- No significant changes.



General and Administrative

Program Scope and Functional Description

The G&A Program provides executive leadership; enterprise security; enterprise risk management; communications; and administrative support for staff, committees, and members; as well as logistics support for the office and meeting facilities. In addition, indirect costs like Office Rent that benefit multiple functional areas are accounted for in this program.

2022 Key Budget Assumptions

- WECC staff will provide the same level of meetings and meeting support as last year for the Board of Directors and Board Committees.
- The Board approved Lake Las Vegas, NV, as the location for the 2022 Annual Meeting.
- Board Directors will be compensated according to the 2022 Board compensation structure.
- The Vancouver office closed in 2021 and the lease was terminated due to an offer from an adjacent tenant.
- One position, vacant due to efficiencies gained, is redeployed to CMEP for a mitigation engineer with a focus on CIP standards.
- 0.5 FTE is transferred to Finance to assist with increased financial and administrative tasks.
- 0.5 FTE is transferred from Legal and Regulatory due to realignment of job responsibilities.

2022 Goals and Deliverables

- Provide strong executive leadership and strategic guidance for WECC's activities, and ensure WECC supports the ERO Enterprise Long-Term Strategy and meets the expectations of the Regional Delegation Agreement.
- Provide excellent support and logistics coordination for the Board and Board committees.
- Continue to enhance the meetings team and stakeholder services groups by identifying efficiencies and opportunities to increase effectiveness.
- Continue to enhance internal and external communications.
- Continue to improve WECC's security posture and programs.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses decrease by a net of \$269,000 primarily due to a net of one position transferred to CMEP, 0.5 FTE transferred to Finance, 0.5 FTE transferred from Legal and Regulatory, a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.



Meeting Expenses

- Meetings & Conference Calls decrease by a net of \$14,000 primarily to align the Board meeting expense budget with historical spending.
- Travel decreases by a net of \$37,000 primarily due to a planned increase in virtual meetings and to align the budget with historical spending for in-person meetings.

Operating Expenses

- Consultants & Contracts decrease by a net of \$134,000 primarily due to the elimination of a Board Director search.
- Office Rent decreases by a net of \$65,000 primarily due to the closure of the Vancouver office in 2021 and termination of that lease.
- Office Costs increase by a net of \$10,000 primarily due to the replacement of aging office furniture.
- Professional Services increase by a net of \$83,000 primarily due to an increase in Board Director retainers.

Fixed Assets

- No significant changes.



Legal and Regulatory

Program Scope and Functional Description

The Legal and Regulatory Program provides coordinated legal services and subject matter expertise to the Board, committees, and staff, in addition to consistent legal interpretations of relevant statutes, regulations, court opinions, and regulatory decisions. On occasion, major efforts may be outsourced to select law firms, but the responsibility for all legal matters remains with the Legal and Regulatory Program. WECC's broad scope of activities requires significant legal support and review. Arranging for legal support is complicated by the technical nature of this developing area of law, and there are many potential areas of conflict prohibiting the use of law firms with energy practices.

The Legal and Regulatory program area also includes the External Affairs department, created in 2020. The External Affairs department, along with the Communications and Training and Outreach departments, form the Strategic Engagement group. The Strategic Engagement group is overseen by the Vice President of Strategic Engagement and Deputy General Counsel and focuses on increasing WECC's visibility, relevance, and effectiveness of engagement with stakeholders at all levels—such as, WECC members, industry, advisory bodies, NGOs, consumer advocates, regulators, policymakers, and legislators across the Western Interconnection. Strategic Engagement is also focused on the timely production and dissemination of high-quality analyses addressing reliability and security topics of interest and the importance to decision-makers throughout the Western Interconnection.

2022 Key Budget Assumptions

- The scope of current operations will be maintained.
- One external affairs position is added to Legal and Regulatory as WECC continues to expand stakeholder outreach and education efforts across the West.
- 0.5 FTE is transferred to G&A due to realignment of job responsibilities.
- An increase in virtual meetings will decrease travel expenses.

2022 Goals and Deliverables

- Provide efficient, cost-effective legal support to the Board, committees, and staff through a combination of in-house and outside resources.
- Advise staff on legal matters.
- Coordinate with the ERO Enterprise legal group to identify and share best practices.



- Bolster and expand External Affairs activities to:
 - Appropriately inform executive leadership about key national and Western policy and legislative initiatives;
 - Increase engagement with stakeholders across the West; and
 - Ensure analytical work products are shared in a targeted manner with appropriate audiences.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$224,000 primarily due to a new external affairs position, 0.5 FTE transferred to G&A, a budgeted 3% merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- Travel increases by a net of \$28,000 primarily due to state and provincial outreach visits by the new Vice President of Strategic Engagement and Deputy General Counsel.

Operating Expenses

- Office Costs increase by a net of \$10,000 primarily due to the PolicyStat software subscription, which was implemented in 2021 to increase the effectiveness of policy review, updates, and employee acknowledgements.

Fixed Assets

- No significant changes.



Information Technology

Program Scope and Functional Description

The Information Technology (IT) Program provides systems and security support and expertise. This includes physical security and cybersecurity risk mitigation, as well as support for hardware, software, data, system administration, data center operations, email, and telephony. IT implements new technology solutions using staff and external service providers to improve the security, effectiveness, and efficiency of business processes and operations. IT provides resources and tools to enable the organization to meet evolving requirements in support of its mission and delegated responsibilities.

2022 Key Budget Assumptions

- WECC will increase security capabilities with more authentication controls and enhanced threat monitoring, detection, and reporting tools due to the ever-changing cybersecurity landscape.
- Consultants will be used for project-based work to augment staff skill sets instead of increasing headcount.
- IT will continue to drive long-term levelized costs by obtaining subscription services for software and infrastructure when practical.
- To retain vendor support and to reduce unplanned outages, desktop computer equipment will be replaced every four years, servers every five years, and network equipment every seven to 10 years.
- In support of the ERO Enterprise IT Strategy, IT will continue to work collaboratively to use knowledge across the ERO Enterprise, minimize duplication of effort and investments, and improve operational efficiency.
- Some of the Peak Reliability donation will be used for content management tools to improve data portals, collection, and management.

2022 Goals and Deliverables

- Upgrade and refresh wecc.org.
- Provide enterprise data management and reporting tools, enhanced telephony, and communication capabilities.
- Migrate customer relationship management software to the cloud.
- Create centralized databases, automated processes, and tools to organize a growing volume of electronic data.
- Enhance the capabilities and security controls for mobile devices and remote workers.
- Continuously improve WECC's security program and posture due to the critical nature of some of WECC's data and evolving cybersecurity risks.



Resource Requirements/Explanation of Significant Changes*Personnel Expenses*

- Personnel Expenses increase by a net of \$48,000 primarily due to a budgeted 3% merit pool, changes in position levels, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- No significant changes.

Operating Expenses

- Consultants & Contracts increase by a net of \$276,000 primarily due to data submission and portal projects, to be funded with the Peak Reliability donation.
- Office Costs increase by a net of \$277,000 primarily due to increased subscription-based computer licensing and new enterprise security tools.

Fixed Assets

- Computer & Software CapEx increases by a net of \$50,000 primarily due to refreshes of storage drives and blade servers.



Human Resources

Program Scope and Functional Description

The Human Resources (HR) Program is responsible for the delivery of all HR functions, including recruitment, staffing, compensation, benefits, safety, health and wellness, employee relations, career and performance development, succession planning, knowledge transfer, and leadership and employee training. HR maintains and supports employee-related systems and ensures compliance with all federal and state requirements.

2022 Key Budget Assumptions

- Total WECC headcount increases by four FTEs in 2022.
- WECC's current benefit levels are maintained with minimal premium increases.
- Employee skills gaps are minimized through targeted training, development, and hiring practices.
- Targeted recruiting services will be provided to hiring managers to attract and retain high-quality talent.
- Employee engagement and leadership development will continue to be prioritized.

2022 Goals and Deliverables

- Increase the effectiveness of performance management processes through manager training and development.
- Conduct harassment prevention and diversity and inclusion training for all employees and managers.
- Enhance the scope of succession planning and knowledge transfer, which are vital to maintaining a highly skilled, qualified, and diverse workforce.
- Deliver an attractive benefits package to retain current employees and attract potential employees.
- Manage benefits package costs and minimize premium increases.
- Expand recruiting efforts through college campus outreach, social media platforms, and employee referral programs.
- Offer one technical writing course.
- Develop learning plans for employee training using computer-based training modules and classroom training in the NERC Learning Management System.



Resource Requirements/Explanation of Significant Changes*Personnel Expenses*

- Personnel Expenses decrease by a net of \$11,000 primarily due to adjusted health reimbursement account assumptions, a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits enrollment rates.

Meeting Expenses

- No significant changes.

Operating Expenses

- Consultants & Contracts increase by a net of \$16,000 primarily due to an employee engagement survey.
- Office Costs decrease by \$13,000 primarily to align recruiting costs with current recruiting efforts.

Fixed Assets

- No significant changes.



Finance and Accounting

Program Scope and Functional Description

The Finance and Accounting Program provides accounting and financial analysis support. The program is responsible for payroll, accounts payable, accounts receivable, budgeting, fixed assets management, banking, cash management, tax filings, and financial reporting.

2022 Key Budget Assumptions

- Interest rates remain flat.
- 0.5 FTE is transferred from G&A to assist with financial and administrative tasks.

2022 Goals and Deliverables

- Help departments efficiently and effectively manage resources and operate within approved budgets.
- Identify and implement efficiencies in financial processes.
- Ensure WECC has effective financial controls.
- Provide quality reporting and financial analysis to managers, the FAC, and the Board.
- Maintain secure and reliable cloud-based software.

Resource Requirements/Explanation of Significant Changes

Personnel Expenses

- Personnel Expenses increase by a net of \$48,000 primarily due to a 0.5 FTE transferred from G&A, a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- No significant changes.

Operating Expenses

- No significant changes.

Fixed Assets

- No significant changes.



Corporate Services Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
CORPORATE SERVICES					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Statutory Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Workshops & Miscellaneous	-	-	-	-	-
Interest	-	-	-	-	-
Total Revenue (A)	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Personnel Expenses					
Salaries	\$ 5,006,363	\$ 4,820,703	\$ (185,660)	\$ 4,949,493	\$ (56,870)
Payroll Taxes	288,761	279,424	(9,337)	311,823	23,062
Benefits	1,004,303	995,169	(9,134)	1,037,438	33,135
Retirement Costs	425,027	365,275	(59,752)	466,470	41,443
Total Personnel Expenses	\$ 6,724,454	\$ 6,460,571	\$ (263,883)	\$ 6,765,224	\$ 40,770
Meeting Expenses					
Meetings & Conference Calls	\$ 125,650	\$ 97,784	\$ (27,866)	\$ 151,422	\$ 25,772
Travel	252,804	99,635	(153,169)	239,422	(13,382)
Total Meeting Expenses	\$ 378,454	\$ 197,419	\$ (181,035)	\$ 390,844	\$ 12,390
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ 638,500	\$ 581,355	\$ (57,145)	\$ 796,500	\$ 158,000
Office Rent	1,372,346	1,343,760	(28,586)	1,306,912	(65,434)
Office Costs	1,081,637	1,242,180	160,543	1,367,675	286,038
Professional Services	955,800	1,032,419	76,619	1,045,000	89,200
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 4,048,283	\$ 4,199,714	\$ 151,431	\$ 4,516,087	\$ 467,804
Total Direct Expenses	\$ 11,151,191	\$ 10,857,704	\$ (293,487)	\$ 11,672,155	\$ 520,964
Indirect Expenses	\$ (11,151,191)	\$ (10,857,704)	\$ 293,487	\$ (11,672,155)	\$ (520,964)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets (=A-B)	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Assets, excluding Right of Use Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (B+C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ -	\$ -	\$ -	\$ -	\$ -
FTEs	42.0	40.5	(1.5)	42.0	-
HC	43.0	42.0	(1.0)	43.0	-





Section B

Supplemental Financial Information

Section B—Supplemental Financial Information

Reserve Analysis

Table B-1

Working Capital Reserve Analysis 2021-2022				
STATUTORY				
	Total	Working Capital Reserve	Unreleased Penalties	Peak Reliability Donation
Beginning Reserve, January 1, 2021	\$ 18,303,226	\$ 8,133,832	\$ 6,342,000	\$ 3,827,394
Plus: 2021 Funding (from Load-Serving Entities (LSE) or designees)	25,000,000	25,000,000	-	-
Plus: Penalties released	-	3,499,000	(3,499,000)	-
Plus: Penalties received	2,455,000	-	2,455,000	-
Plus: 2021 Other funding sources	300,500	300,500	-	-
Less: 2021 Projected expenses & capital expenditures	(28,522,910)	(28,522,910)	-	-
Projected Reserve (Deficit), December 31, 2021	\$ 17,535,816	\$ 8,410,422	\$ 5,298,000	\$ 3,827,394
Plus: 2022 Funding (from Load-Serving Entities (LSE) or designees)	25,000,000	25,000,000	-	-
Plus: Penalties released	-	5,298,000	(5,298,000)	-
Plus: 2022 Other funding sources	304,201	304,201	-	-
Less: 2022 Projected expenses & capital expenditures	(29,746,899)	(29,346,899)	-	(400,000)
2022 Increase(Decrease) in Reserve	\$ (4,442,698)	\$ 1,255,302	\$ (5,298,000)	\$ (400,000)
Projected Reserve, December 31, 2022	\$ 13,093,118	\$ 9,665,724	\$ -	\$ 3,427,394
2022 Expenses and Capital Expenditures	\$ 29,746,899			
Less: Penalties Released	(5,298,000)			
Less: Other Funding Sources	(304,201)			
Change to Working Capital & Peak Reliability Donation Reserves	855,302			
2022 WECC Assessment	\$ 25,000,000			

WECC's Board has approved a Working Capital Reserve balance equal to one to three months of Personnel, Meeting, and Operating Expenses per its Reserve Policy, approved by the FAC on June 16, 2020.



Breakdown of Statement of Activities

The following detailed schedules are in support of the Statutory Statement of Activities and Capital Expenditures on page 12.

Monetary Penalties

As documented in the NERC Policy *Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standards*, penalty monies received on or before June 30, 2021, will be used to offset assessments in the 2022 WECC budget.

All penalty monies received on or before June 30, 2021, are listed in [Table B-2](#), including the amount and the date received.

Allocation Method: Penalty monies received have been allocated to the following Statutory Programs to reduce assessments:

- Reliability Standards;
- Compliance Monitoring and Enforcement and Organization Registration and Certification;
- Reliability Assessment and Performance Analysis;
- Training and Outreach; and
- Situation Awareness and Infrastructure Security.

Penalty monies are allocated based on the number of FTEs in the functional areas divided by the aggregate total FTEs in the programs receiving the allocation.



Penalty Sanctions

Table B-2

Penalty Information				Recognized in Financial Statements (Year)		
Date Invoiced	Amount Invoiced	Date Received	Amount Received	2019	2020	2021
10/1/2019	2,180,000	8/27/2020	2,180,000	2,180,000		
7/2/2020	112,000	8/6/2020	112,000		112,000	
1/21/2021	450,000	2/19/2021	450,000		450,000	
1/21/2021	53,000	2/23/2021	53,000		53,000	
1/21/2021	22,000	2/24/2021	22,000		22,000	
1/21/2021	26,000	3/18/2021	26,000		26,000	
4/19/2021	205,000	5/19/2021	205,000			205,000
6/7/2021	50,000	6/24/2021	50,000			50,000
6/30/2021	2,200,000	6/30/2021	2,200,000			2,200,000
	<u>5,298,000</u>		<u>5,298,000</u>	<u>2,180,000</u>	<u>663,000</u>	<u>2,455,000</u>
Total Penalties Received between July 1, 2020 and June 30, 2021 to offset 2022 Assessments			<u>5,298,000</u>			



Supplemental Funding

Table B-3

Supplemental Revenue Breakdown By Program (Excludes Assessments & Penalty Sanctions)		Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget
Reliability Standards					
Interest		\$ 5,631	\$ 2,139	\$ 2,972	\$ (2,659)
	Total	\$ 5,631	\$ 2,139	\$ 2,972	\$ (2,659)
Compliance Monitoring, Enforcement & Org. Registration					
Interest		\$ 117,785	\$ 46,874	\$ 67,107	\$ (50,678)
	Total	\$ 117,785	\$ 46,874	\$ 67,107	\$ (50,678)
Reliability Assessment and Performance Analysis					
Interest		\$ 70,014	\$ 26,592	\$ 35,460	\$ (34,554)
	Total	\$ 70,014	\$ 26,592	\$ 35,460	\$ (34,554)
Training and Outreach					
Workshops & Miscellaneous		\$ 430,000	\$ 222,400	\$ 194,700	\$ (235,300)
Interest		2,816	1,069	1,981	(835)
	Total	\$ 432,816	\$ 223,469	\$ 196,681	\$ (236,135)
Situation Awareness and Infrastructure Security					
Interest		\$ 3,754	\$ 1,426	\$ 1,981	\$ (1,773)
	Total	\$ 3,754	\$ 1,426	\$ 1,981	\$ (1,773)
Corporate Services					
Interest		\$ -	\$ -	\$ -	\$ -
	Total	\$ -	\$ -	\$ -	\$ -
	Total Supplemental Funding	\$ 630,000	\$ 300,500	\$ 304,201	\$ (325,799)

Explanation of Significant Variances—2022 Budget versus 2021 Budget

WECC anticipates its investments will earn interest of approximately \$110,000 in 2022. This revenue is allocated to the Statutory Programs based on FTEs.

Reliability Standards

- No significant changes.

Compliance Monitoring and Enforcement and Organization Registration and Certification

- No significant changes.

Reliability Assessment and Performance Analysis

- No significant changes.



Training and Outreach

- Workshops & Miscellaneous decreases by a net of \$235,000 primarily due to the conversion of one Reliability and Security Workshop to a virtual format.

Situation Awareness and Infrastructure Security

- No significant changes.

Corporate Services

- No significant changes.



Personnel Expenses

Table B-4

Personnel Expenses	Budget 2021		Projection 2021		Budget 2022		Variance 2021 Budget v 2022 Budget		Variance %
Salaries									
Salaries	\$	17,424,448	\$	18,054,768	\$	18,388,644	\$	964,196	5.5%
Employment Agency Fees		23,000		11,500		23,000		-	100.0%
Temporary Office Services		-		-		-		-	
Total Salaries	\$	17,447,448	\$	18,066,268	\$	18,411,644	\$	964,196	5.5%
Total Payroll Taxes	\$	1,144,116	\$	1,238,873	\$	1,217,683	\$	73,567	6.4%
Benefits									
Workers Compensation	\$	17,904	\$	13,896	\$	16,000	\$	(1,904)	(10.6%)
Medical Insurance		2,072,704		2,129,705		2,298,657		225,953	10.9%
Life-LTD-STD Insurance		105,761		83,675		98,165		(7,596)	(7.2%)
Education		172,439		179,452		173,249		810	0.5%
Relocation		-		-		-		-	
Other		22,145		21,405		19,500		(2,645)	(11.9%)
Total Benefits	\$	2,390,953	\$	2,428,133	\$	2,605,571	\$	214,618	9.0%
Retirement									
Discretionary 401(k) Contribution	\$	1,499,399	\$	1,533,345	\$	1,633,608	\$	134,209	9.0%
Retirement Administration Fees		-		1,000		30,000		30,000	100.0%
Total Retirement	\$	1,499,399	\$	1,534,345	\$	1,663,608	\$	164,209	11.0%
Total Personnel Costs	\$	22,481,916	\$	23,267,619	\$	23,898,506	\$	1,416,590	6.3%
FTEs		148.5		148.5		152.5		4.0	2.7%
Cost per FTE									
Salaries	\$	117,491	\$	121,658	\$	120,732	\$	3,241	2.8%
Payroll Taxes		7,704		8,343		7,985		280	3.6%
Benefits		16,101		16,351		17,086		985	6.1%
Retirement		10,097		10,332		10,909		812	8.0%
Total Cost per FTE	\$	151,393	\$	156,684	\$	156,712	\$	5,318	3.5%

Explanation of Significant Variances—2022 Budget versus 2021 Budget

Salaries

- Salaries increase by a net of \$964,000 primarily due to 4.0 additional FTEs, a budgeted 3% merit pool, continued refinement of labor float percentages, and changes in position levels.

Payroll Taxes

- Payroll Taxes increase by a net of \$74,000 primarily due to increases in salaries.



Benefits

- Medical Insurance increases by a net of \$226,000 primarily due to additional FTEs and changes in participation levels.

Retirement

- Discretionary 401(k) Contribution increases by a net of \$134,000 primarily due to increases in salaries.
- Retirement Administration Fees increase by \$30,000 due to the exhaustion of the 401(k) plan's forfeiture account, which was historically used to cover administration fees.



Meeting Expenses

Table B-5

Meeting & Conference Call Expense	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	3,380	1,100	-	(3,380)	(100.0%)
Reliability Assessment and Performance Analysis	45,180	13,955	29,476	(15,704)	(34.8%)
Training and Outreach	410,980	206,740	277,146	(133,834)	(32.6%)
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	125,650	97,784	151,422	25,772	20.5%
Total Meeting Expenses	\$ 585,190	\$ 319,579	\$ 458,044	\$ (127,146)	(21.7%)

Travel Expense	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Reliability Standards	\$ 17,550	\$ 3,921	\$ 13,065	\$ (4,485)	(25.6%)
Compliance Monitoring and Enforcement and Organization Registration and Certification	654,743	32,640	357,990	(296,753)	(45.3%)
Reliability Assessment and Performance Analysis	210,070	56,810	148,062	(62,008)	(29.5%)
Training and Outreach	11,720	8,900	6,995	(4,725)	(40.3%)
Situation Awareness and Infrastructure Security	-	-	7,120	7,120	100.0%
Corporate Services	252,804	99,635	239,422	(13,382)	(5.3%)
Total Travel Expenses	\$ 1,146,887	\$ 201,906	\$ 772,654	\$ (374,233)	(32.6%)

Explanation of Significant Variances—2022 Budget versus 2021 Budget

Meeting & Conference Call Expense

- Reliability Assessment and Performance Analysis decreases by \$16,000 primarily due to planned increases in virtual meetings.
- Training and Outreach decreases by \$134,000 primarily due to the conversion of one Reliability and Security Workshop to a virtual format.
- Corporate Services increases by a net of \$26,000 primarily due to one set of Standing Committee meetings being held off site.

Travel Expense

- CMEP decreases by a net of \$297,000 primarily due to planned reductions in travel requirements for audit teams and support staff and a planned increase in virtual meetings.
- RAPA decreases by a net of \$62,000 primarily due to a planned increase in virtual meetings.



Section B—Supplemental Financial Information

- Corporate Services decreases by a net of \$13,000 primarily due to one set of Standing Committee meetings being off-site, a planned increase in virtual meetings, and to align the budget with historical spending.



Consultants and Contracts

Table B-6

Consultants	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	-	42,000	-	-	
Reliability Assessment and Performance Analysis	350,000	285,663	208,100	(141,900)	(40.5%)
Training and Outreach	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	638,500	578,267	796,500	158,000	24.7%
Consultants Total	\$ 988,500	\$ 905,930	\$ 1,004,600	\$ 16,100	1.6%

Contracts	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Contracts					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	-	-	-	-	
Reliability Assessment and Performance Analysis	-	-	-	-	
Training and Outreach	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	-	3,088	-	-	
Contracts Total	\$ -	\$ 3,088	\$ -	\$ -	
Total Consulting and Contracts	\$ 988,500	\$ 909,018	\$ 1,004,600	\$ 16,100	1.6%

Explanation of Significant Variances—2022 Budget versus 2021 Budget

Consultants

- RAPA decreases by a net of \$142,000 primarily due to the completion of one-time 2021 study work and the addition of MAVRIC probabilistic tool updates.
- Corporate Services increases by a net of \$158,000 primarily due to the addition of content management tools to enhance data portals, collection, and management to be funded with the Peak Reliability donation.

Contracts

- No significant changes.

Office Rent

Table B-7

Office Rent	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Office Rent	\$ 1,352,640	\$ 1,329,070	\$ 1,293,336	\$ (59,304)	(4.4%)
Utilities	-	-	-	-	
Maintenance	19,706	14,690	13,576	(6,130)	(31.1%)
Security	-	-	-	-	
Total Office Rent	\$ 1,372,346	\$ 1,343,760	\$ 1,306,912	\$ (65,434)	(4.8%)

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Office Rent decreases by \$59,000 due to the closure of the Vancouver office in 2021 and the resulting lease termination.

Office Costs

Table B-8

Office Costs	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Telephone	\$ 80,200	\$ 75,674	\$ 91,100	\$ 10,900	13.6%
Internet	69,198	77,651	82,992	13,794	19.9%
Office Supplies	91,036	72,046	75,613	(15,423)	(16.9%)
Computer Supplies and Maintenance	951,395	1,171,948	1,092,854	141,459	14.9%
Publications & Subscriptions	55,589	77,201	61,314	5,725	10.3%
Dues and Fees	282,905	230,234	312,699	29,794	10.5%
Postage	1,500	1,047	1,500	-	0.0%
Express Shipping	6,725	6,728	5,722	(1,003)	(14.9%)
Copying	19,826	13,587	18,316	(1,510)	(7.6%)
Bank Charges	55,725	53,200	51,225	(4,500)	(8.1%)
Taxes	49,200	56,281	51,000	1,800	3.7%
Total Office Costs	\$ 1,663,299	\$ 1,835,597	\$ 1,844,335	\$ 181,036	10.9%

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Telephone increases by a net of \$11,000 primarily due to the realignment of budgeted amounts with current line usage and activity.
- Internet increases by \$14,000 primarily due to increased bandwidth requirements for cloud-based applications and remote access to WECC's systems.
- Office Supplies decrease by \$15,000 primarily due to the realignment of budgeted office expenses with historical spending and the elimination of the Vancouver copier lease due to the office closure.
- Computer Supplies and Maintenance increases by a net of \$141,000 primarily due to the increase in subscription-based security tools and software and a reduction in webCDMS licensing fees due to the implementation of the Align tool.
- Dues and Fees increase by \$30,000 primarily due to increased enterprise security costs and internal and external network penetration tests.

Professional Services

Table B-9

Professional Services	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Board Director Fees	\$ 828,000	\$ 884,000	\$ 911,000	\$ 83,000	10.0%
Outside Legal	-	25,405	-	-	
Accounting & Auditing Fees	32,800	31,500	41,000	8,200	25.0%
Insurance Commercial	95,000	101,427	93,000	(2,000)	(2.1%)
Total Services	\$ 955,800	\$ 1,042,332	\$ 1,045,000	\$ 89,200	9.3%

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Board Director Fees increase by a net of \$83,000 primarily due to increases in Board Director retainers.

Miscellaneous Expenses

Table B-10

Miscellaneous Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Miscellaneous	\$ -	\$ -	\$ -	\$ -	-
Total Miscellaneous Expenses	\$ -	\$ -	\$ -	\$ -	-

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Not applicable.



Other Non-Operating

Table B-11

Other Non-Operating Expenses	Budget 2021	Projection 2021	Budget 2022	Variance 2021 Budget v 2022 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment	-	-	-	-	-
Office Relocation	-	-	-	-	-
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	-

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Not applicable.

Fixed Assets**Table B-12**

Fixed Assets	Budget 2021	Projection 2021	Budget 2022	Variance	
				2021 Budget v 2022 Budget	Variance %
Computer & Software CapEx	\$ 55,000	\$ -	\$ -	\$ (55,000)	(100.0%)
Furniture & Fixtures CapEx	-	-	-	-	
Equipment CapEx	50,000	115,588	119,000	69,000	138.0%
Leasehold Improvements	-	139,625	-	-	
	\$ 105,000	\$ 255,213	\$ 119,000	\$ 14,000	13.3%

Explanation of Significant Variances—2022 Budget versus 2021 Budget

- Computer & Software CapEx decreases by a net of \$55,000 primarily due to completed planned 2021 equipment refreshes.
- Equipment CapEx increases by a net of \$69,000 primarily due to refreshes of storage arrays, drives, and blade servers.



Section C

Non-Statutory Program

Section C—Non-Statutory Program

Western Renewable Energy Generation Information System (in whole dollars)			
	2021 Budget	2022 Budget	Increase (Decrease)
Total FTEs	7.0	7.0	-
Direct Expenses	\$ 1,334,685	\$ 1,359,383	\$ 24,698
Indirect Expenses	\$ 687,436	\$ 695,066	\$ 7,630
Inc(Dec) in Fixed Assets	\$ 6,473	\$ 682,086	\$ 675,613
Total Funding Requirement	\$ 599,238	\$ (437,693)	\$ (1,036,931)

WREGIS

The Western Renewable Energy Generation Information System (WREGIS) is an independent, renewable energy database for the Western Interconnection. WREGIS creates renewable energy certificates (REC) for verifiable renewable generation from units that are registered in the database.

WREGIS was developed by the Western Governors' Association, the Western Regional Air Partnership, and the California Energy Commission (CEC). This development was further guided by stakeholder input from more than 400 participants for more than three years.

The program was integrated into WECC on March 31, 2012, following the expiration of the contract between WECC and the CEC that provided for backstop funding. WREGIS is advised by two committees: 1) the Stakeholder Advisory Committee, which is open to all interested participants, and 2) the WREGIS Committee, which is open to members and various stakeholder groups.

WREGIS costs fall outside Section 215 of the Federal Power Act. Participants fund WREGIS through registration and transaction fees. To avoid any crossover of Section 215 dollars, a portion of WECC's overhead costs are allocated to the program based on a formula implemented following a FERC audit.

WREGIS consists of two parts: 1) the information system software, and 2) administrative operations. Staff coordinates with the software contractor and performs all the administrative tasks, including:

- Registering account holders and generation units;
- Training users;
- Providing customer service and help desk services;
- Supporting participating programs by facilitating cooperation and research into ongoing issues and sharing documentation with participants;
- Auditing generation and other data; and
- Managing the budgeting, billing, and financial reporting.



2022 Key Budget Assumptions

WREGIS is funded entirely by user fees and is not subsidized by Section 215 funding. There are several types of user fees. Annual fees are paid by all users and are based on size (generation capacity) and user type. Usage fees are paid by all but micro, small, and medium generation owners. WREGIS also charges ad hoc reporting fees.

- User fees are based on size (generation capacity) and user type.
 - Approximately 4% of revenues are based on annual fees.
 - Approximately 92% of revenues are based on usage fees, which can depend on factors like weather (wind and solar generation levels) and state regulatory policies (retirement, transfers, etc.).
 - Approximately 4% of revenues are attributable to fees for specific, requested functions like tracking e-Tags.
- Revenues can vary greatly from year to year; therefore, large WREGIS reserves are held to allow for normal operations during years in which fee levels are low and to fund large, non-recurring expenditures like major software upgrades.
- The software will undergo a major upgrade to improve functionality and performance of the WREGIS software.
- Account holder training sessions will be changed to a virtual format.

2022 Goals and Key Deliverables

- Maintain compliance with the participating state and provincial programs, and voluntary programs.
- Register program participants.
- Perform a major upgrade to the WREGIS software.
- Refine and improve data collection to ensure high-quality data.
- Perform six tabletop account holder audits split between Qualified Reporting Entities and Small Scale Aggregate customers.
- Deliver two virtual account holder training series and one virtual Qualified Reporting Entity training session.

Resource Requirements/Explanation of Significant Changes

Funding Sources

- Membership Fees decrease by a net of \$278,000 primarily due to an anticipated increase in program participation and the alignment of the budget with historical activity-based revenues.
- Interest decreases by \$51,000 primarily due to low rates of return on investments.



Personnel Expenses

- Personnel Expenses increase by a net of \$18,000 primarily due to a budgeted 3% merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.

Meeting Expenses

- No significant changes.

Operating Expenses

- Office Costs increase by \$17,000 primarily due to increased maintenance expenses for the WREGIS software.

Indirect Expenses

- Indirect Expenses increase by a net of \$9,000 primarily due to an increase in Corporate Services expenses. Corporate Services expenses are allocated to statutory and non-statutory program areas based on FTEs.

Fixed Assets

- Fixed Assets increase by a net of \$676,000 primarily due to a major software upgrade to the WREGIS software and fixed asset additions in Corporate Services. Corporate Services expenses are allocated to statutory and non-statutory program areas based on FTEs.

Other Non-Operating Expenses

- No significant changes.



WREGIS Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2021 Budget & Projection, and 2022 Budget					
NON-STATUTORY					
	2021 Budget	2021 Projection	Variance 2021 Budget v 2021 Projection Over(Under)	2022 Budget	Variance 2022 Budget v 2021 Budget Inc(Dec)
Revenue					
Statutory Funding					
WECC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties Released	-	-	-	-	-
Total Statutory Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Membership Fees	\$ 2,505,324	\$ 2,537,231	\$ 31,907	2,226,842	\$ (278,482)
Workshops & Miscellaneous	-	-	-	-	-
Interest	122,508	13,049	(109,459)	72,000	(50,508)
Total Revenue (A)	\$ 2,627,832	\$ 2,550,280	\$ (77,552)	\$ 2,298,842	\$ (328,990)
Expenses					
Personnel Expenses					
Salaries	\$ 565,316	\$ 577,501	\$ 12,185	\$ 575,261	\$ 9,945
Payroll Taxes	39,506	39,671	165	38,580	(926)
Benefits	87,467	82,319	(5,148)	94,874	7,407
Retirement Costs	49,109	49,889	780	51,123	2,014
Total Personnel Expenses	\$ 741,398	\$ 749,380	\$ 7,982	\$ 759,838	\$ 18,440
Meeting Expenses					
Meetings & Conference Calls	\$ 4,620	\$ 2,310	\$ (2,310)	\$ 1,485	\$ (3,135)
Travel	17,160	880	(16,280)	9,975	(7,185)
Total Meeting Expenses	\$ 21,780	\$ 3,190	\$ (18,590)	\$ 11,460	\$ (10,320)
Operating Expenses, excluding Depreciation					
Consultants & Contracts	\$ -	\$ 1,350	\$ 1,350	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	571,507	558,923	(12,584)	588,085	16,578
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Operating Expenses	\$ 571,507	\$ 560,273	\$ (11,234)	\$ 588,085	\$ 16,578
Total Direct Expenses	\$ 1,334,685	\$ 1,312,843	\$ (21,842)	\$ 1,359,383	\$ 24,698
Indirect Expenses	\$ 687,436	\$ 652,113	\$ (35,323)	\$ 695,066	\$ 7,630
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 2,022,121	\$ 1,964,956	\$ (57,165)	\$ 2,054,449	\$ 32,328
Change in Net Assets (=A-B)	\$ 605,711	\$ 585,324	\$ (20,387)	\$ 244,393	\$ (361,318)
Fixed Assets, excluding Right of Use Assets (C)	\$ 6,473	\$ 16,308	\$ 9,835	\$ 682,086	\$ 675,613
TOTAL BUDGET (=B+C)	\$ 2,028,594	\$ 1,981,264	\$ (47,330)	\$ 2,736,535	\$ 707,941
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ 599,238	\$ 569,016	\$ (30,222)	\$ (437,693)	\$ (1,036,931)
FTEs	7.0	7.0	-	7.0	-
HC	7.0	7.0	-	7.0	-



Personnel Analysis

FTEs are defined as full-time equivalent employees only. Fractional FTEs reflect part-time employees or employees who worked in fewer than all four quarters of the year.

Total FTEs by Program Area	Budget 2021	Projection 2021	Direct FTEs 2022 Budget	Shared FTEs* 2022 Budget	Total FTEs 2022 Budget	Change from 2021 Budget
NON-STATUTORY						
Operational Programs						
Total FTEs Operational Programs	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Programs						
WREGIS	7.0	7.0	7.0	0.0	7.0	0.0
Total FTEs Administrative Programs	7.0	7.0	7.0	0.0	7.0	0.0
Total FTEs	7.0	7.0	7.0	0.0	7.0	0.0

*A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

Reserve Analysis

Working Capital Reserve Analysis	
NON-STATUTORY	

Beginning Reserve (Deficit), January 1, 2021	Total \$ 8,221,755
Plus: 2021 Funding	2,550,280
Less: 2021 Projected expenses & capital expenditures	(1,981,264)
Projected Working Capital Reserve (Deficit), December 31, 2021	<u><u>\$ 8,790,771</u></u>
Plus: 2022 Funding	2,298,842
Less: 2022 Projected expenses & capital expenditures	(2,736,535)
Projected Working Capital Reserve, December 31, 2022	<u><u>\$ 8,353,078</u></u>





Section D

Additional Financial Information

Section D—Additional Financial Information

2022 Consolidated Statement of Activities by Program, Statutory, and Non-Statutory

Statement of Activities and Capital Expenditures by Program	Total	Statutory Total	Non-Statutory Total	Statutory Functions							Non-Statutory Functions	
				Statutory Total	Reliability Standards	Compliance and Organization Registration and Certification	Reliability Assessment and Performance Analysis	Training and Outreach	Situation Awareness and Infrastructure Security	Corporate Services	Non-Statutory Total	WREGIS
Revenue												
Statutory Funding												
WECC Assessments	\$ 25,000,000	\$ 25,000,000	\$ -	\$ 25,000,000	\$ 764,248	\$ 14,926,708	\$ 8,333,059	\$ 543,752	\$ 432,233	\$ -	\$ -	\$ -
Penalties Released	5,298,000	5,298,000	-	5,298,000	143,772	3,246,852	1,715,680	95,848	95,848	-	-	-
Total Statutory Funding	\$ 30,298,000	\$ 30,298,000	\$ -	\$ 30,298,000	\$ 908,020	\$ 18,173,560	\$ 10,048,739	\$ 639,600	\$ 528,081	\$ -	\$ -	\$ -
Non-statutory Funding												
Workshops & Miscellaneous	\$ 2,226,842	\$ -	\$ 2,226,842	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,226,842	\$ 2,226,842
Interest	194,700	194,700	-	194,700	-	-	-	194,700	-	-	-	-
	181,501	109,501	72,000	109,501	2,972	67,107	35,460	1,981	1,981	-	72,000	72,000
Total Revenue (A)	\$ 32,901,043	\$ 30,602,201	\$ 2,298,842	\$ 30,602,201	\$ 910,992	\$ 18,240,667	\$ 10,084,199	\$ 836,281	\$ 530,062	\$ -	\$ 2,298,842	\$ 2,298,842
Expenses												
Personnel Expenses												
Salaries	\$ 18,986,905	\$ 18,411,644	\$ 575,261	\$ 18,411,644	\$ 454,624	\$ 8,152,114	\$ 4,381,226	\$ 235,668	\$ 238,519	\$ 4,949,493	\$ 575,261	\$ 575,261
Payroll Taxes	1,256,263	1,217,683	38,580	1,217,683	30,150	550,760	292,557	15,911	16,482	311,823	38,580	38,580
Benefits	2,700,445	2,605,571	94,874	2,605,571	42,770	953,931	512,784	30,201	28,447	1,037,438	94,874	94,874
Retirement Costs	1,714,731	1,663,608	51,123	1,663,608	40,461	724,861	389,613	20,974	21,228	466,470	51,123	51,123
Total Personnel Expenses	\$ 24,658,344	\$ 23,898,506	\$ 759,838	\$ 23,898,506	\$ 568,005	\$ 10,381,666	\$ 5,576,180	\$ 302,754	\$ 304,676	\$ 6,765,224	\$ 759,838	\$ 759,838
Meeting Expenses												
Meetings & Conference Calls	\$ 459,529	\$ 458,044	\$ 1,485	\$ 458,044	\$ -	\$ -	\$ 29,476	\$ 277,146	\$ -	\$ 151,422	\$ 1,485	\$ 1,485
Travel	782,629	772,654	9,975	772,654	13,065	357,990	148,062	6,995	7,120	239,422	9,975	9,975
Total Meeting Expenses	\$ 1,242,158	\$ 1,230,698	\$ 11,460	\$ 1,230,698	\$ 13,065	\$ 357,990	\$ 177,538	\$ 284,141	\$ 7,120	\$ 390,844	\$ 11,460	\$ 11,460
Operating Expenses, excluding Depreciation												
Consultants & Contracts	\$ 1,004,600	\$ 1,004,600	\$ -	\$ 1,004,600	\$ -	\$ -	\$ 208,100	\$ -	\$ -	\$ 796,500	\$ -	\$ -
Office Rent	1,306,912	1,306,912	-	1,306,912	-	-	-	-	-	1,306,912	-	-
Office Costs	2,432,420	1,844,335	588,085	1,844,335	3,540	195,362	249,525	25,398	2,835	1,367,675	588,085	588,085
Professional Services	1,045,000	1,045,000	-	1,045,000	-	-	-	-	-	1,045,000	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	\$ 5,788,932	\$ 5,200,847	\$ 588,085	\$ 5,200,847	\$ 3,540	\$ 195,362	\$ 457,625	\$ 25,398	\$ 2,835	\$ 4,516,087	\$ 588,085	\$ 588,085
Total Direct Expenses	\$ 31,689,434	\$ 30,330,051	\$ 1,359,383	\$ 30,330,051	\$ 584,610	\$ 10,935,018	\$ 6,211,343	\$ 612,293	\$ 314,631	\$ 11,672,155	\$ 1,359,383	\$ 1,359,383
Indirect Expenses												
	\$ -	\$ (695,066)	\$ 695,066	\$ (695,066)	\$ 297,886	\$ 6,727,252	\$ 3,554,769	\$ 198,590	\$ 198,591	\$ (11,672,155)	\$ 695,066	\$ 695,066
Other Non-Operating Expenses												
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 31,689,434	\$ 29,634,985	\$ 2,054,449	\$ 29,634,985	\$ 882,496	\$ 17,662,270	\$ 9,766,112	\$ 810,883	\$ 513,222	\$ -	\$ 2,054,449	\$ 2,054,449
Change in Net Assets (=A-B)	\$ 1,211,609	\$ 967,216	\$ 244,393	\$ 967,217	\$ 28,496	\$ 578,397	\$ 318,087	\$ 25,398	\$ 16,840	\$ -	\$ 244,393	\$ 244,393
Fixed Assets, excluding Right of Use Assets (C)	\$ 794,000	\$ 111,914	\$ 682,086	\$ 111,914	\$ 3,036	\$ 68,586	\$ 36,242	\$ 2,025	\$ 2,025	\$ -	\$ 682,086	\$ 682,086
TOTAL BUDGET (B+C)	\$ 32,483,434	\$ 29,746,899	\$ 2,736,535	\$ 29,746,899	\$ 885,532	\$ 17,730,856	\$ 9,802,354	\$ 812,908	\$ 515,247	\$ -	\$ 2,736,535	\$ 2,736,535
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 417,609	\$ 855,303	\$ (437,693)	\$ 855,303	\$ 25,460	\$ 509,811	\$ 281,845	\$ 23,373	\$ 14,815	\$ -	\$ (437,693)	\$ (437,693)
FTEs	159.5	152.5	7.0	152.5	3.0	67.8	35.8	2.0	2.0	42.0	7.0	7.0
HC	159.0	152.0	7.0	152.0	3.0	67.0	36.0	1.0	2.0	43.0	7.0	7.0

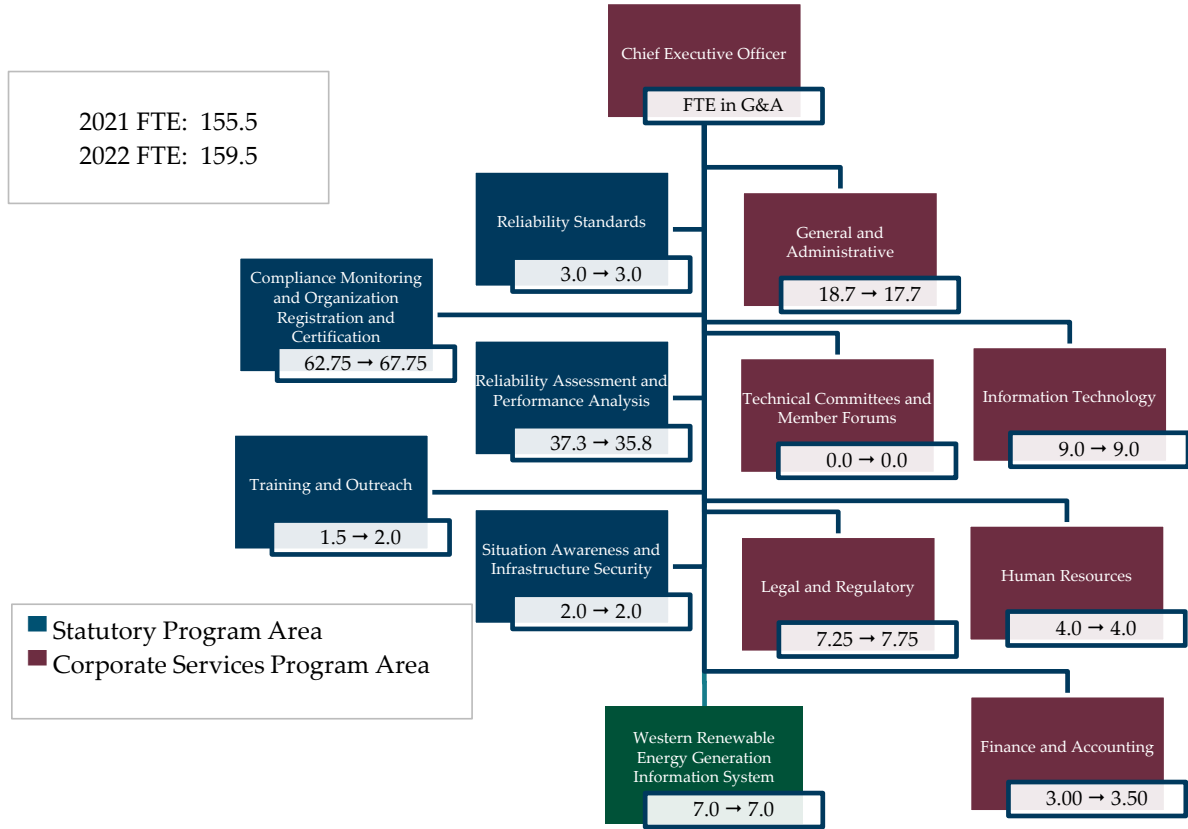


Statement of Financial Position

Statement of Financial Position			
2020 Audited, 2021 Projection, and 2022 Budget			
STATUTORY and NON-STATUTORY			
	(Per Audit)	Projected	Budget
	31-Dec-20	31-Dec-21	31-Dec-22
ASSETS			
Cash and cash equivalents	\$ 30,392,777	\$ 35,767,672	\$ 34,773,672
Investments	9,553,088	8,400,000	8,817,609
Accounts receivable, net	6,181,743	1,250,000	1,250,000
Prepaid expenses and other assets	815,130	500,000	500,000
Property and equipment, net	726,752	846,046	1,640,046
Total Assets	\$ 47,669,490	\$ 46,763,718	\$ 46,981,327
LIABILITIES AND NET ASSETS			
Liabilities			
Accounts payable	\$ 5,030,966	\$ 1,250,000	\$ 1,250,000
Accrued expenses	3,414,901	1,750,000	1,750,000
Deferred revenue	11,945,326	15,400,000	15,400,000
Other liabilities	660,185	900,000	700,000
Total Liabilities	\$ 21,051,378	\$ 19,300,000	\$ 19,100,000
Unrestricted net assets	26,618,112	27,463,718	27,881,327
Total Liabilities and Net Assets	\$ 47,669,490	\$ 46,763,718	\$ 46,981,327

Appendix A—Organizational Chart

Changes in Budgeted FTE by Program Area



Appendix B—2022 Budget & Projected 2023 and 2024 Budgets

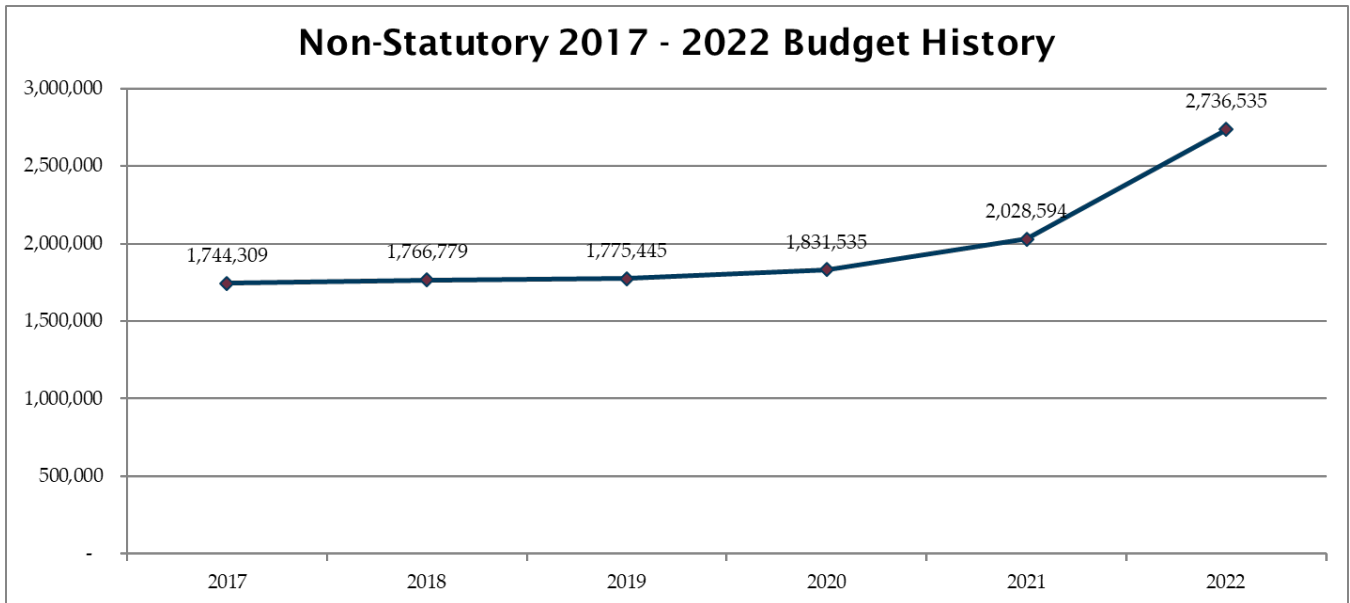
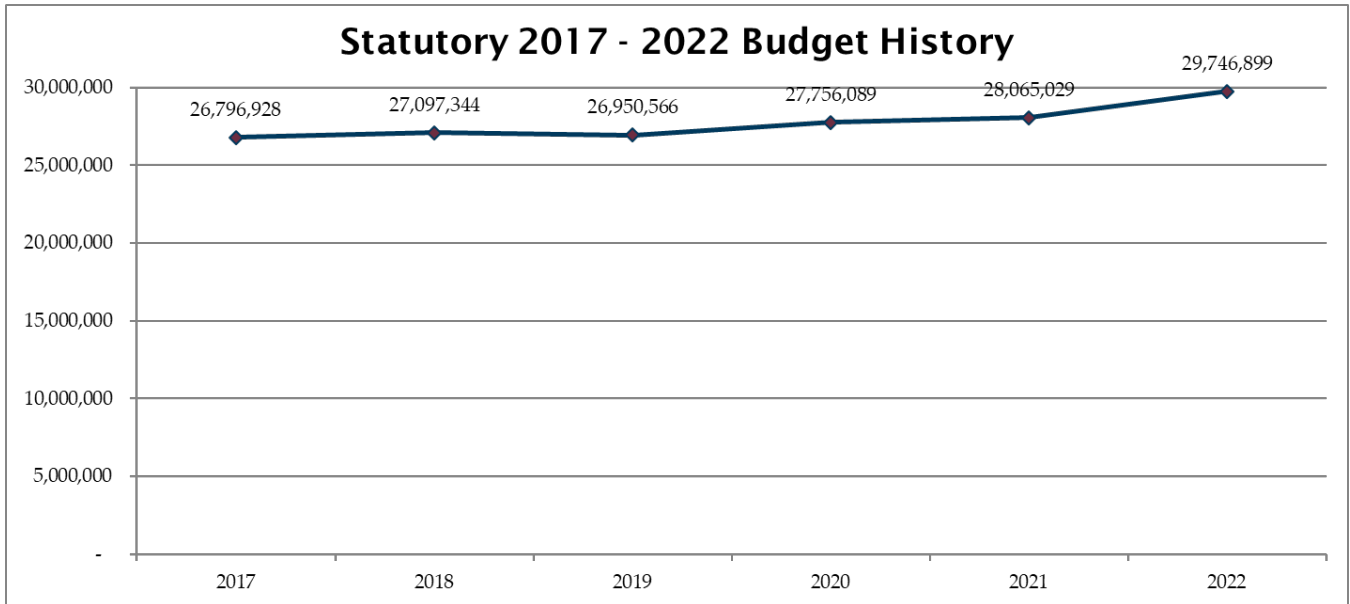
Statement of Activities and Capital Expenditures 2022 Budget & Projected 2023 and 2024 Budgets								
	Statutory							
	2022 Budget	2023 Projection	\$ Change 21 v 22	% Change 21 v 22	2024 Projection	\$ Change 22 v 23	% Change 22 v 23	
Revenue								
Statutory Funding								
WECC Assessments	\$ 25,000,000	\$ 25,500,000	\$ 500,000	2.0%	\$ 26,010,000	\$ 510,000	2.0%	
Penalties Released	5,298,000	-	(5,298,000)	(100.0%)	-	-		
Total Statutory Funding	\$ 30,298,000	\$ 25,500,000	\$ (4,798,000)	(15.8%)	\$ 26,010,000	\$ 510,000	2.0%	
Membership Fees	\$ -	\$ -	\$ -		\$ -	\$ -		
Workshops & Miscellaneous	194,700	194,700	-	0.0%	194,700	-	0.0%	
Interest	109,501	109,501	-	0.0%	109,501	-	0.0%	
Total Revenue (A)	\$ 30,602,201	\$ 25,804,201	\$ (4,798,000)	(15.7%)	\$ 26,314,201	\$ 510,000	2.0%	
Expenses								
Personnel Expenses								
Salaries	\$ 18,411,644	\$ 18,963,993	\$ 552,349	3.0%	\$ 19,532,913	\$ 568,920	3.0%	
Payroll Taxes	1,217,683	1,254,213	36,530	3.0%	1,291,840	37,626	3.0%	
Benefits	2,605,571	2,683,738	78,167	3.0%	2,764,250	80,512	3.0%	
Retirement Costs	1,663,608	1,713,516	49,908	3.0%	1,764,922	51,405	3.0%	
Total Personnel Expenses	\$ 23,898,506	\$ 24,615,461	\$ 716,955	3.0%	\$ 25,353,925	\$ 738,464	3.0%	
Meeting Expenses								
Meetings & Conference Calls	\$ 458,044	\$ 420,044	\$ (38,000)	(8.3%)	\$ 458,044	\$ 38,000	9.0%	
Travel	772,654	772,654	-	0.0%	772,654	-	0.0%	
Total Meeting Expenses	\$ 1,230,698	\$ 1,192,698	\$ (38,000)	(3.1%)	\$ 1,230,698	\$ 38,000	3.2%	
Operating Expenses, excluding Depreciation								
Consultants & Contracts	\$ 1,004,600	\$ 674,600	\$ (330,000)	(32.8%)	\$ 679,600	\$ 5,000	0.7%	
Office Rent	1,306,912	1,306,912	-	0.0%	1,306,912	-	0.0%	
Office Costs	1,844,335	1,892,778	48,443	2.6%	1,951,706	58,928	3.1%	
Professional Services	1,045,000	1,076,350	31,350	3.0%	1,108,641	32,291	3.0%	
Miscellaneous	-	-	-		-	-		
Total Operating Expenses	\$ 5,200,847	\$ 4,950,640	\$ (250,207)	(4.8%)	\$ 5,046,859	\$ 96,218	1.9%	
Total Direct Expenses	\$ 30,330,051	\$ 30,758,800	\$ 428,749	1.4%	\$ 31,631,482	\$ 872,682	2.8%	
Indirect Expenses	\$ (695,066)	\$ (707,603)	\$ (12,537)	1.8%	\$ (724,585)	\$ (16,982.00)	2.4%	
Other Non-Operating Expenses	\$ -	\$ -	\$ -		\$ -	\$ -		
Total Expenses (B)	\$ 29,634,985	\$ 30,051,197	\$ 416,212	1.4%	\$ 30,906,897	\$ 855,700	2.8%	
Change in Assets	\$ 967,216	\$ (4,246,996)	\$ (5,214,212)	(539.1%)	\$ (4,592,696)	\$ (345,700)	8.1%	
Incr(Dec) in Fixed Assets (C)	\$ 111,914	\$ 111,914	\$ -	0.0%	\$ 111,914	\$ -	0.0%	
TOTAL BUDGET (B+C)	\$ 29,746,899	\$ 30,163,111	\$ 416,212	1.4%	\$ 31,018,811	\$ 855,700	2.8%	
TOTAL CHANGE IN WORKING CAPITAL (A-B-C)	\$ 855,302	\$ (4,358,910)	\$ (5,214,212)	(609.6%)	\$ (4,704,610)	\$ (345,700)	7.9%	
FTEs	152.5	152.5	-	0.0%	152.5	-	0.0%	
HC	152.0	152.0	-	0.0%	152.0	-	0.0%	



Appendix C—Adjustment to the Alberta Electric System Operator (AESO) Assessment

Adjustment to the AESO Assessments		
Credit for WECC Compliance Costs		
	2021	2022
	Compliance Budget AESO NEL Allocation	Compliance Budget AESO NEL Allocation
WECC Compliance Costs		
Direct Costs less Direct Revenue	\$ 10,089,311	\$ 10,867,911
Indirect Costs	6,162,371	6,727,252
Fixed Asset Expenditures	58,025	68,586
Total Net Costs, including Fixed Assets	\$ 16,309,707	\$ 17,663,749
Net total to be allocated	\$ 16,309,707	\$ 17,663,749
AESO NEL Share (2019 and 2020)	7.128%	7.021%
AESO Proportional Share of Compliance Costs, including Fixed Assets	\$ 1,162,632	\$ 1,240,172
% Credit (59.00 of 62.75 FTE for 2021; 64.15 of 67.75 FTE for 2022)	94.02%	94.69%
AESO Credit for Compliance Costs	\$ 1,093,152	\$ 1,174,344

Appendix D—Statutory and Non-Statutory Budget History Charts



DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 9

**WESTERN INTERCONNECTION
REGIONAL ADVISORY BODY**

PROPOSED 2022 BUSINESS PLAN AND BUDGET



**Western Interconnection
Regional Advisory Body**

2022 Business Plan and Budget

June 25, 2021

**Approved by
Appointed Members of the
Western Interconnection Regional
Advisory Body**

**1600 Broadway, Suite 1720
Denver, Colorado 80202
720-897-4600**

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Introduction

The Western Interconnection Regional Advisory Body (WIRAB) proposed budget for 2022 is \$918,900. This amount is \$286,600 (23.8%) lower than the amount in WIRAB's approved 2021 budget. Total proposed full-time equivalents (FTEs) for 2022 have decreased from 4.75 to 3.0. WIRAB's total funding requirement is \$699,700. As shown in Table 1 below, this amount represents the total statutory expenses of \$918,900 less \$219,200 in statutory working capital requirement. WIRAB's proposed funding assessment is \$698,700, a decrease of \$287,600 from the 2021 funding assessment. WIRAB proposes to allocate the funding assessment as follows: \$586,773 (84%) to the U.S. portion; \$99,937 (14.3%) to the Canadian portion; and \$11,990 (1.7%) to the Mexican portion of the Western Interconnection. The following table summarizes the WIRAB proposed budget for 2022.

Table 1. WIRAB Budget for 2022

WIRAB - Total Resources (in whole dollars)	2022 Budget	U.S.	Canada	Mexico
Statutory FTEs	3.00			
Non-statutory FTEs				
Total FTEs	3.00			
Statutory Expenses	\$ 918,900			
Non-Statutory Expenses				
Total Expenses	\$ 918,900			
Statutory Inc(Dec) in Fixed Assets				
Non-Statutory Inc(Dec) in Fixed Assets				
Total Inc(Dec) in Fixed Assets	\$ -			
Statutory Working Capital Requirement	\$ (219,200)			
Non-Statutory Working Capital Requirement	0			
Total Working Capital Requirement	\$ (219,200)			
Total Statutory Funding Requirement	\$ 699,700			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 699,700			
Statutory Funding Assessments	\$ 698,700	\$ 586,773	\$ 99,937	\$ 11,990
Non-Statutory Fees				
NEL	855,793,369	718,701,162	122,407,031	14,685,176
NEL%	100.00%	84.0%	14.3%	1.7%

Organizational Overview

The Federal Energy Regulatory Commission (FERC or Commission) created WIRAB in April 2006, upon petition of ten Western Governors and in accordance with Section 215(j) of the Federal Power Act (FPA). The Governors invited all U.S. states, Canadian provinces, and Mexican jurisdictions with territory in the Western Interconnection to join WIRAB and to participate in WIRAB's activities as a regional advisory body charged with advising the FERC, the North American Electric Reliability Corporation (NERC) and the Regional Entity (i.e., the Western Electricity Coordinating Council or WECC) on matters of electric grid reliability.

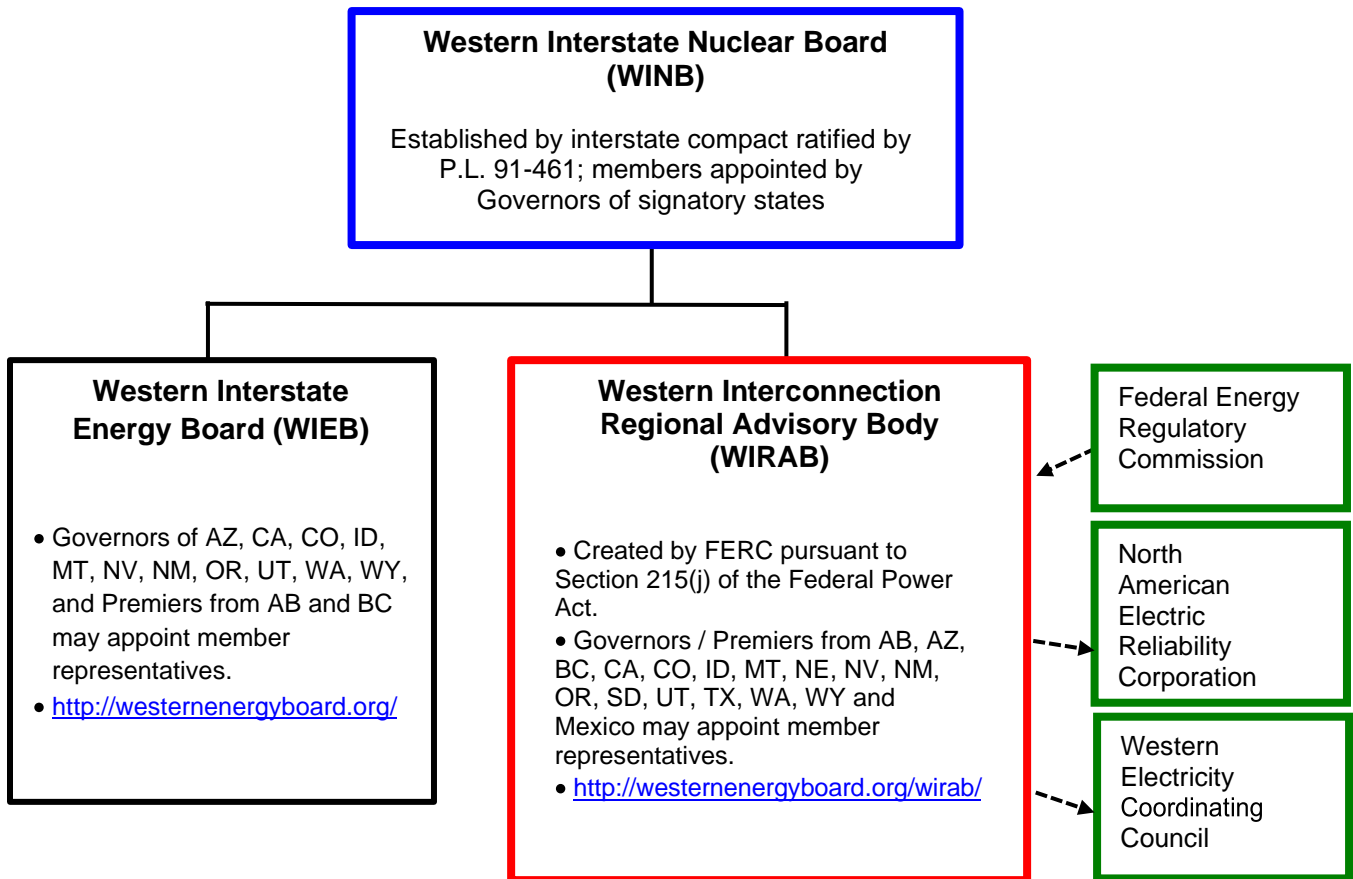
In July 2006, the FERC issued an order granting the Governors' petition to establish WIRAB.¹ In its order, the FERC determined that WIRAB should receive funding for its Section 215(j) activities and directed WIRAB to annually develop a budget and related information for submittal through the Electric Reliability Organization (ERO) budget approval process. The Commission instructed WIRAB to develop a budget in a form similar to that specified for regional entities as set forth in Order 672.² The FERC also required WIRAB to identify the portion of its funding to be received from Canada and Mexico.

The Governors created WIRAB as a standing advisory committee to the Western Interstate Nuclear Board (WINB), which was formed pursuant to the Western Interstate Nuclear Compact, P.L. 91-461. WIRAB has the same status under the compact as the Western Interstate Energy Board (WIEB). Below is a chart that illustrates these organizational relationships.

¹ Order on Petition to Establish a Regional Advisory Body for the Western Interconnection, 116 FERC ¶ 61,061, Docket No. RR06-2-000, July 20, 2006.

² Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Reliability Standards, Order 672, Docket RM05-30-000, Feb. 3, 2006, P. 228. "Each Regional Entity must submit its complete business plan, entire budget and organizational chart to the ERO for it to submit to the Commission. The complete business plan and the entire budget will provide the Commission with necessary information about any non-statutory activities, the source of their funding, and whether the pursuit of such activities presents a conflict of interest for the Regional Entity. For a Cross-Border Regional Entity, this information will also inform the Commission as to what portion of the budget is expended upon activities within the United States."

Figure 1. Organizational Relationships



Membership and Governance

All U.S. states with territory in the Western Interconnection (AZ, CA, CO, ID, MT, NE, NV, NM, OR, SD, TX, UT, WA, WY), the Canadian provinces of Alberta and British Columbia, and the Mexican state of Baja California are eligible to appoint members to WIRAB. Member representatives of WIRAB are appointees of the respective Governors and Premiers, or representative-designated alternates. Below is the list of current WIRAB member representatives:

Figure 2. WIRAB Membership List

WIRAB Member Representatives		
Alberta	Andrew Buffin	Executive Director, Generation, Transmission and Markets Policy, Alberta Energy
Arizona	Lea Márquez Peterson	Chairwoman, Arizona Corporation Commission
British Columbia	Amy Sopinka	Director, Transmission and Interjurisdictional Branch Ministry of Energy, Mines and Low Carbon Innovation
California	Andrew McAllister	Commissioner, California Energy Commission
Colorado	Vacant	-
Idaho	Kristine Raper	Commissioner, Idaho Public Utilities Commission
Montana	Michael Freeman	Natural Resources Policy Advisor, Montana Office of the Governor
Nebraska	Tim Texel	Executive Director, Nebraska Power Review Board
Nevada	David Bobzien	Director, Nevada Governor's Office of Energy
New Mexico	Cynthia Hall	Commissioner, New Mexico Public Regulation Commission
Oregon	Megan Decker	Chair, Oregon Public Utility Commission
South Dakota	Greg Rislov	Commission Advisor, South Dakota Public Utility Commission
Utah	Thom Carter	Executive Director, Utah Governor's Office of Energy Development
Washington	Elizabeth Osborne	Senior Energy Policy Analyst, Washington State Energy Office
Wyoming	Mary Throne	Commissioner, Wyoming Public Utilities Commission

WIRAB holds two in-person meetings each year, usually in April and October. These meetings are open to the public. WIRAB also holds monthly conference calls to discuss current and emerging issues and hosts periodic webinars with presentations from subject matter experts on key electric grid reliability topics.

Statutory Functional Scope

The FERC established WIRAB as a Regional Advisory Body under section 215(j) of the FPA. The language in Section 215(j) specifically provides for WIRAB's authority to advise the FERC, NERC, and WECC on whether reliability standards, budgets and fees, governance, compliance, assessments, strategic direction and other activities conducted pursuant to Section 215 are just, reasonable, not unduly discriminatory or preferential, and in the public interest.

WIRAB's advice to the FERC, NERC, and WECC can be grouped into four categories that

are appropriately funded under Section 215 of the FPA, including:

1. Governance and Strategic Planning;
2. Emerging Trends and System Risks;
3. Periodic Reliability Assessments; and
4. Reliability Standards and Proactive Enforcement.

WIRAB's activities in each of these categories are described in Section A – Statutory Activities.

2022 Strategic Priorities and Initiatives

The resource mix of the Western power system is rapidly changing. Environmental policy, regulatory efforts to transition to a lower carbon economy, and shifting market forces have resulted in announced retirements of coal-fired, natural gas-fired, and nuclear generating units. Utility-scale wind and solar generation is being built in many parts of the West. California and the Desert Southwest are experiencing rapid growth in the installation of distributed solar photovoltaic generation. State energy storage procurement mandates are also incentivizing a broader implementation of energy storage technologies that may support higher penetrations of asynchronous, variable energy resources (VER). New and promising carbon-free technologies like advanced nuclear reactors and green hydrogen are emerging to fill the gap created by VERs as the electric system in the West continues to decarbonize. These changes to the generation resource mix will present reliability challenges and opportunities for the Western Interconnection. Short and long-term flexibility on both the supply-side and demand-side will be needed to ensure reliability under a changing resource mix.

Reliability challenges associated with climate change are becoming more evident. Widespread heat and cold waves have made load forecasting for utility planning and operations more difficult. Wildfires and droughts have become more severe and impactful on communities and utility infrastructure. Energy policymakers and regulators are increasingly incorporating environmental and climate change factors into decisions about electricity generation and grid infrastructure. With these changes, a renewed focus on grid reliability must be front and center as the grid transforms to meet current and future needs of grid users throughout the Western

Interconnection.

Grid modernization efforts also present reliability challenges and opportunities for the Western Interconnection. Efforts to increase electrification of energy end uses, such as transportation and space and water heating, and increased reliance on distributed energy resources (DER) are creating a need for better coordination among Bulk Power System (BPS) operators and distribution system operators. Improvements to coordination will require additional research, development, and the implementation of new technologies and operational tools that can be used to improve system reliability throughout the Western Interconnection. Grid modernization also necessitates an increased focus on cyber security and physical hardening of electric grid infrastructure against human-caused and natural threats like wildfires. Physical and cyber threats to the grid will continue to impact the availability of data and the transparency of periodic reliability assessments, creating a need for better data sharing protocols to improve information sharing, coordination, and overall situational awareness.

The structure of Western power markets also continues to undergo significant change, creating additional reliability challenges and opportunities for the Western Interconnection. The California Independent System Operator (ISO) Western Energy Imbalance Market (EIM) continues to gain new participants and the ISO is working to offer day ahead market services to EIM participants (Extended Day Ahead Market, or EDAM). The Southwest Power Pool (SPP) is also offering market services, including energy imbalance market services (WEIS), to Balancing Authorities (BAs) and Transmission Operators (TOPs) within the Western Interconnection. These market reforms could result in significant changes to system operations (e.g., transmission scheduling, congestion management, and reliability coordination).

In response to these on-going changes in the Western Interconnection, WIRAB has identified four strategic initiatives that it will pursue in 2021:

Initiative 1: Advise WECC to improve regional coordination and information sharing to mitigate risks associated with wildfires and the impacts on and from the bulk electric system in the Western Interconnection.

The West experiences extreme natural events, including wildfires, drought, earthquakes, wide-spread heat, and cold temperature events that can impact utility operations. Wildfires are

unique to the West. In recent years, the wildfire season has had a devastating impact on utilities and their communities. With climate change, these events are only becoming more severe and frequent. Three states, California, Oregon, and Colorado, experienced their worst wildfire seasons on record in 2020.

Wildfire risk threatens the reliability and security of the electric grid. Society relies on the grid to perform essential functions such as heating and cooling homes, operating water delivery systems, powering telecommunications networks, and other critical services. Utility infrastructure is impacted by these events and, in some cases, is a root cause of the wildfires. Utilities in the West have initiated strategies like Public Safety Power Shutoffs (PSPS) to minimize wildfire ignition risks from utility infrastructure, diminishing end-use customer reliability in exchange for the potential benefit of increased safety from wildfires. In 2019, over 2 million customer accounts in California and about 5,000 in Oregon experienced PSPS events, which in some cases lasted multiple days and resulted in significant human and economic impacts.

WECC should explore opportunities to mitigate risks associated with wildfires and the bulk electric system in the Western Interconnection. WECC should work with its stakeholder community to encourage broader information sharing among utilities. This initiative would expand regional cooperation and increase the sharing of lessons learned in sectionalization, vegetation management, grid hardening, and PSPS practices. This initiative aligns with WECC's adopted Reliability Risk Priority to prepare for and evaluate impacts on the Bulk Power System caused by extreme natural events (e.g., wildfires) and share best practices and lessons learned from individual state and utility experiences across the Interconnection.

The goals of this initiative are to:

- Improve regional cooperation on wildfire mitigation measures for wildfires that are caused by and impact utility infrastructure.
- Create and disseminate lessons learned among Western utilities, policymakers, and stakeholders to promote best practices.
- Disseminate findings to electric utility regulators, policymakers, industry, and other stakeholders regarding the opportunities to decrease the risks associated with wildfires and the bulk electric system in the Western Interconnection.

The actions that WIRAB staff will take to achieve these goals will be to:

- Encourage WECC to open a dialog with stakeholders about adopting a WECC-wide Wildfire Mitigation Data System.
- Work with WECC and its members to identify and address implementation barriers to a wildfire mitigation data system.
- Educate state and provincial regulators and policymakers on the importance of this kind of information sharing.

Initiative 2: Advise WECC to conduct a reliability assessment, identifying the services and capabilities that long-duration energy storage could provide to support ongoing system reliability in the Western Interconnection.

Across the West, the resource mix continues to change as states, provinces, municipalities, corporations, and utilities continue to adopt clean and renewable energy policy goals aimed at decarbonizing the electric sector; many endeavoring to ultimately attain a “100 percent clean” or zero carbon electricity portfolio. These policies are driving an increase in the integration of variable energy resources (VER), such as wind and solar, and the continued retirement of traditional baseload (i.e., fossil fueled generation or nuclear) assets. These changes to the resource mix impact grid operations and create new challenges and opportunities for electric system reliability. Coal generation has traditionally been a baseload resource and natural gas generators provide baseload and flexibility services. More recently both coal and gas generators have been operated to provide more flexibility in order to integrate increasing levels of VER that are not consistently available to meet load.

As electric utilities continue to move closer to achieving long-term decarbonization objectives, new, clean technologies capable of storing energy for long periods (e.g., green hydrogen storage, pumped hydro storage, and flow batteries) may be essential to providing grid balancing services and maintaining grid reliability. Today, almost all battery storage assets in use, under development, or contracted for have a duration of four hours or less. Although these short-term energy storage resources will continue to provide important grid services, a better understanding of the characteristics of various long duration energy storage (LDES) resources and the services they are uniquely capable of providing will become increasingly important. LDES could potentially serve to reduce VER curtailments, storing and enabling the use of previously

generated clean energy at a later time (especially during multi-day weather events when renewable generation is limited), thereby providing clean, flexible, and dispatchable capacity, supporting electric system reliability, and reducing the West's reliance on traditional baseload resources to provide these services.

In 2022, WIRAB will encourage WECC to conduct a qualitative assessment of LDES and the reliability services and capabilities that LDES could provide to support ongoing electric system reliability in the Western Interconnection as the resource mix continues to change.

The goals of this initiative are to:

- Identify the reliability services and capabilities needed to support aggressive decarbonization efforts in the Western Interconnection.
- Identify the reliability services and capabilities that LDES is best or uniquely capable of providing.
- Disseminate findings to electric utility regulators, policymakers, industry, and other stakeholders in the West.

The actions that WIRAB staff will take to achieve these goals will be to:

- Encourage WECC to conduct a qualitative assessment of the reliability services and capabilities needed to support aggressive decarbonization efforts in the Western Interconnection and to identify which services and capabilities LDES may be uniquely capable of providing.
- Work with WECC and industry stakeholders to frame and scope an assessment that explores the reliability services needed in the Western Interconnection that LDES may be able to provide and identify any rules and regulations that may serve as a barrier to potential advances in the technology.
- Work with WECC to disseminate findings to electric utility regulators, policymakers, industry and other stakeholders.

Initiative 3: Advise WECC to produce a preliminary summary of grid-forming inverter technology and its potential to support the stable operation of the Western Interconnection.

The resource mix of the electric grid continues to change from primarily traditional

synchronous generation to asynchronous inverter-based resources such as wind generation, solar PV, and battery electric storage. These changes raise important questions about the reliability of the grid. Grid-forming inverters may become an important technology to ensure reliability of the electric grid of the future.

In a grid driven primarily by synchronous generation, inverter-based resources can rely on the synchronous generation to create the grid's Alternating Current (AC) frequency and use that signal to match their output with the grid. With inverter-based resources accounting for increasing shares of the overall electricity supply, the frequency signal that is essential for the coordinated operation of the electric grid may become weak in certain locations. Weak grid issues can be especially prevalent in electric systems with long distance transmission lines between generating units. Grid forming inverters are capable of providing the appropriate frequency signal on their own and can potentially support the stable operation of the electric grid.

Grid-forming inverters are an emerging research topic for the industry, academics, and government. The National Renewable Energy Laboratory (NREL) recently produced a report titled, "Research Roadmap for Grid Forming Inverters." The Energy Systems Integration Group has held a series of technical workshop sessions exploring grid-forming inverter technology and its potential application to the grid.

WECC should produce a preliminary summary document on grid forming inverter technology and the potential uses and reliability benefits of grid-forming inverters. The document should be accessible to stakeholders in the Western Interconnection, including industry, policymakers, regulators, about the potential uses and reliability benefits of grid-forming inverters. WECC should identify if grid-forming inverters may provide unique opportunities in the Western Interconnection to enhance future grid reliability and identify areas of future study.

The goals of this initiative are to:

- Produce a neutral unbiased summary of grid forming inverter technology and its potential to support the stable operation of the Western Interconnection.
- Educate and inform stakeholders in the Western Interconnection about an emerging technology that may contribute to electric grid reliability.
- Disseminate the preliminary summary of this emerging technology to a broad group of

stakeholders in the Western Interconnection.

The actions that WIRAB staff will take to achieve these goals will be to:

- Encourage WECC to engage with other entities and researchers exploring and developing grid-forming inverter technology.
- Work with WECC and industry stakeholders to frame and scope a technical brief that describes how grid-forming inverters can enhance reliability in the Western Interconnection and identify barriers to their deployment.
- Work with WECC to educate state and provincial regulators and policymakers about the potential role of grid-forming invertors to support the stability and reliability of the Western Interconnection with a changing resource mix.

Initiative 4: Advise WECC to continue to improve its “Western Assessment of Resource Adequacy” and to complement this planning work with additional education and outreach on how resource adequacy problems impact real-time system operations.

With its December 2020 publication of the “The Western Assessment of Resource Adequacy Report,” WECC significantly improved its assessment of resource adequacy in the Western Interconnection. The WECC Board of Directors and WECC Executive Team considered advice from WIRAB and other stakeholders and effectively prioritized meaningful work on this issue in 2020. The outcome of this collaboration between WECC and WIRAB demonstrates the successful achievement of goals and objectives identified in WIRAB strategic initiatives on resource adequacy and included in its 2020 and 2021 Business Plan and Budget.

WECC has improved its collection and reporting of generation capacity data, now including future generation retirements and additions in its analysis and providing a robust and independent assessment of long-term resource adequacy in the Western Interconnection. Additionally, WECC has effectively conducted a series of webinars to disseminate the findings of this report to regulators, policymakers, industry, and other stakeholders in the Western Interconnection. WIRAB continues to emphasize that WECC is uniquely positioned to use its expertise to perform quality, independent, and robust assessments of resource adequacy in the six subregions of the Western Interconnection.

Even with these recent successes, resource adequacy continues to be a significant reliability risk in the Western Interconnection. The potential impacts of this reliability risk warrant keeping resource adequacy as a strategic initiative in WIRAB's 2022 Business Plan and Budget. WIRAB believes further improvement is possible in two areas. First, in the area of planning, WIRAB believes WECC can continue to improve its "Western Assessment of Resource Adequacy" by refining its analysis of dynamic planning reserve margins, its analysis of demand at risk, and its analysis of transmission congestion and regional imports and exports under extreme conditions. Second, in the area of operations, WIRAB believes WECC can provide education and clarity by producing a technical brief describing how "planning reserves" become "operating reserves" in the operational timeframe and by further describing how Balancing Authorities manage operating reserves during system contingencies. WIRAB will continue to work closely with WECC to further frame and scope these important efforts.

The goals of this initiative are to:

- Improve the "Western Assessment of Resource Adequacy" by continuing to refine the analysis of dynamic planning reserve margins, the analysis of demand at risk, and the analysis of transmission congestion and regional imports and exports under extreme conditions.
- Provide education and clarity by producing a technical brief that describes how "planning reserves" become "operating reserves" in the operational timeframe and describing how Balancing Authorities manage operating reserves during system contingencies.
- Disseminate the improved analysis and information regarding operational reserves to regulators, policymakers, industry, and other stakeholders in the Western Interconnection.

The actions that WIRAB staff will take to achieve these goals will be to:

- Work with WECC and its stakeholders to continue to refine the Western Assessment of Resource Adequacy.
- Work with WECC and industry stakeholders to frame and scope a technical brief that describes how "planning reserves" become "operating reserves" in the operational timeframe and describing how Balancing Authorities manage operating reserves during system contingencies.

- Work collaboratively with WECC to disseminate key findings to regulators, policymakers, industry, and other stakeholders in the West.

2022 Budget and Assessment Impacts

The WIRAB proposed budget for 2022 is \$918,900. This amount is \$286,600 (23.8%) lower than the amount in WIRAB's approved budget for 2021. Total proposed FTEs for 2022 are 3.0, which reflects a decrease of 1.75 FTEs from 2021. WIRAB's total funding requirement is \$699,700. WIRAB's proposed funding assessment is \$698,700. This funding assessment is \$287,600 lower than the 2021 funding assessment.

Personnel and Indirect Expenses

Salary expenses (exclusive of Indirect expenses) decreased from \$453,300 in the 2021 Budget to \$314,400 (30.6%) in the 2022 Budget due to the decrease in FTE measurement to more accurately account for actual work hours associated with WIRAB business. WIRAB uses a single rate method for indirect expenses. The indirect expenses include office expenses, medical and retirement expenses as well as holiday, vacation, and sick leave for WIRAB staff. The indirect rate is a percent of direct staff time spent on WIRAB. The indirect rate slightly decreases from 113% of direct labor costs in the 2021 Budget to 112.9% in the 2022 Budget. Table 2 shows personnel and indirect expenses per FTE for the approved 2021 Budget and the proposed 2022 Budget.

Table 2. Personnel and Indirect Expense Analysis, 2021-2022

WIRAB - Personnel and Indirect Expense Analysis 2021-2022						
STATUTORY						
	Budget 2021	Projection 2021	Budget 2022	Variance 2022 Budget v 2021 Budget	Variance %	
Salary Expense	\$ 453,300	\$ 453,300	\$ 314,400	\$ (138,900)	-30.6%	
FTEs	4.75	4.75	3.00	(1.75)	-36.8%	
Cost per FTE	\$ 95,432	\$ 95,432	\$ 104,800	\$ 9,368	9.8%	
Indirect Rate	113.0%	113.0%	112.9%			
Indirect Expense	\$ 512,200	\$ 512,200	\$ 354,900	\$ (157,300)	-30.7%	
FTEs	4.75	4.75	3.00	(1.75)	-36.8%	
Cost per FTE	\$ 107,832	\$ 107,832	\$ 118,300	\$ 10,468	9.7%	

Meeting Expense

Meeting costs remained flat at \$56,100 for the proposed 2022 Budget. WIRAB will hold two major in-person meetings per year that include participation by state/provincial agencies with electric power responsibilities in the Western Interconnection. Wherever feasible, WIRAB meetings will be coordinated with other meetings of the Western states and provinces. Webinars on topics of concern will continue to be utilized between in-person meetings. WIRAB also conducts monthly conference calls to update members on current activities and to develop positions on reliability issues in the Western Interconnection.

Travel Expense

Travel costs increased by \$9,600 to \$93,500 to resume anticipated and historical travel costs. A decrease in the 2021 Budget was made due to COVID-19 impacts. WIRAB members travel to biannual meetings and reliability conferences accounts for \$30,200. WIRAB staff travel to attend meetings of WIRAB, WECC and NERC accounts for \$63,300. Hotel and travel costs are based on experience from previous years and in consideration of pandemic conditions.

Consultants and Contracts

The budget includes \$100,000 in contract funding for technical expertise on issues related to improved grid operating practices, reliability standards and compliance; the same amount as budgeted for 2022. This expertise will assist WIRAB in preparing and providing technically-sound advice to be submitted to the FERC, NERC, and WECC as authorized under Section 215(j).

Table 3. Budget Comparison 2021 to 2022

WIRAB - Statement of Activities and Change in Working Capital 2021 Budget & Projection, and 2022 Budget							
STATUTORY							
	2021 Budget	2021 Projection	Variance 2021 Projection v 2021 Budget		2022 Budget	Variance 2022 Budget v 2021 Budget	
			Over(Under)	% Change		Over(Under)	% Change
Funding							
WIRAB Funding							
Assessments	\$ 986,300	\$ 986,300	\$ -	0.0%	\$ 698,700	\$ (287,600)	-29.2%
Penalty Sanctions	-	-	-	-	-	-	-
Total WIRAB Funding	\$ 986,300	\$ 986,300	\$ -	0.0%	\$ 698,700	\$ (287,600)	-29.2%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	3,000	3,000	\$ -	0.0%	1,000	\$ (2,000)	-66.7%
Miscellaneous	-	-	-	-	-	-	-
Total Funding (A)	\$ 989,300	\$ 989,300	\$ -	0.0%	\$ 699,700	\$ (289,600)	-29.3%
Expenses							
Personnel Expenses							
Salaries	453,300	453,300	-	0.0%	314,400	\$ (138,900)	-30.6%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
Total Personnel Expenses	\$ 453,300	\$ 453,300	\$ -	0.0%	\$ 314,400	\$ (138,900)	-30.6%
Meeting Expenses							
WIRAB Meetings	\$ 56,100	\$ 10,000	\$ (46,100)	-82.2%	\$ 56,100	\$ -	0.0%
State Travel	30,200	-	\$ (30,200)	-100.0%	30,200	\$ -	0.0%
Staff Travel	53,700	-	\$ (53,700)	-100.0%	63,300	\$ 9,600	17.9%
			\$ -	-	\$ -	\$ -	-
Total Meeting Expenses	\$ 140,000	\$ 10,000	\$ (130,000)	-92.9%	\$ 149,600	\$ 9,600	6.9%
Operating Expenses							
Consultants & Contracts	\$ 100,000	\$ 75,000	\$ (25,000)	-25.0%	\$ 100,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
Total Operating Expenses	\$ 100,000	\$ 75,000	\$ (25,000)	-25.0%	\$ 100,000	\$ -	0.0%
Total Direct Expenses	\$ 693,300	\$ 538,300	\$ (155,000)	-22.4%	\$ 564,000	\$ (129,300)	-18.6%
Indirect Expenses	\$ 512,200	\$ 512,200	\$ -	0.0%	\$ 354,900	\$ (157,300)	-30.7%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
TOTAL BUDGET (B)	\$ 1,205,500	\$ 1,050,500	\$ (155,000)	-12.9%	\$ 918,900	\$ (286,600)	-23.8%
CHANGE IN WORKING CAPITAL (=A-B)¹	\$ (216,200)	\$ (61,200)	\$ 155,000	-	\$ (219,200)	\$ (3,000)	-
FTEs	4.75	4.75	-	0.0%	3.00	(1.75)	-36.8%

¹ Fixed Asset included in Indirect Expenses.

Statutory Assessments

WIRAB's proposed funding assessment of \$698,700 is allocated at \$586,773 (84%) to the U.S. portion; \$99,937 (14.3%) to the Canadian portion; and \$11,990 (1.7%) to the Mexican portion of the Western Interconnection.

Key Assumptions

The WIRAB 2022 Business Plan and Budget is based on the following assumptions:

- There will be no significant expansion of the FERC, NERC, or WECC responsibilities as a result of legislation or administrative actions.
- WIRAB will monitor reliability coordination activities at the RC West, SPP, the AESO, and BC Hydro.
- WIRAB will hold two in-person meetings in 2022.
- WIRAB will organize and sponsor webinars and workshops on key reliability issues for WIRAB members, state and provincial representatives, industry representatives, and other interested stakeholders.
- WIRAB will attend all WECC Board of Directors and Member Advisory Committee (MAC) meetings.
- WIRAB will attend selected NERC meetings and workshops on relevant topics.
- WIRAB will annually visit with the FERC in its offices.
- WIRAB will monitor all FERC business meetings.
- WIRAB will attend the FERC technical conferences on reliability issues.

Section A – Statutory Activities

2022 Business Plan and Budget

WIRAB's advice to the FERC, NERC, and WECC can be grouped into four categories that are appropriately funded under Section 215 of the FPA:

1. **Governance and Strategic Planning:** Section 215(j) of the FPA authorizes WIRAB to provide advice to the FERC on the governance, strategic direction, budget, and fees of WECC.
2. **Emerging Trends and System Risks:** WIRAB must maintain awareness of system conditions, emerging trends, and system risks in order to provide effective and technically sound advice regarding the strategic direction of the FERC, NERC, and WECC. WIRAB also uses knowledge of emerging trends and risks to provide advice to WECC on reliability readiness activities and proactive compliance efforts. These activities are appropriately funded under Section 215(j) of the FPA.
3. **Periodic Reliability Assessments:** Section 215(g) of the FPA requires NERC to conduct periodic assessments of the reliability and adequacy of the BPS. WECC assists NERC in performing this statutory activity. WIRAB works closely with WECC to improve reliability and resource adequacy assessments in the Western Interconnection.
4. **Reliability Standards and Proactive Enforcement:** Section 215(j) of the FPA authorizes WIRAB to provide advice to the FERC on whether reliability standards are just, reasonable, not unduly discriminatory, or preferential, and in the public interest. WIRAB works closely with WECC to identify emerging problems or conditions that should be considered in the course of requesting, drafting, and voting on amendments to existing standards and in developing new standards.

WIRAB's activities in each of these categories are described in the following subsections.

Governance and Strategic Planning

Section 215(j) of the FPA authorizes WIRAB to advise the FERC and the regional entity (i.e., WECC) on the governance, strategic direction, budget, and fees of WECC. The WIRAB staff engages with the WECC Board of Directors, management, WECC standing committees, and WECC's Member Advisory Committee (MAC). Through this engagement, WIRAB monitors developments related to WECC's organizational governance, strategic direction, and business plan and budget. This engagement informs WIRAB's efforts to evaluate the effectiveness and efficiency of operations at WECC and to ensure that all "activities conducted pursuant to Section 215 are just, reasonable, not unduly discriminatory or preferential, and in the public interest."

The WIRAB staff also conducts monthly meetings with WIRAB Members. During these webinar meetings, WIRAB staff provides WIRAB Members, WECC's Class 5 Representatives (i.e., representatives of state and provincial governments), and other interested stakeholders with regular updates on current and upcoming activities at WECC. These meetings provide WIRAB Members an opportunity to develop and review WIRAB's written advice and guidance to the WECC Board of Directors. During these webinars, the WIRAB staff also provides opportunities for WECC representatives to engage with and discuss governance-related activities with WIRAB Members. WIRAB provides WECC with independent expert advice on operational practices and performance, annual business plans and budgets, strategic planning, committee charters, proposed bylaw amendments, fees, and other matters. Additionally, WIRAB is deeply involved in WECC's quinquennial organizational review required by Section 4.9 of the WECC Bylaws. Once the organizational review is completed, WIRAB monitors and participates in the implementation of the recommendations that the WECC Board develops during the organizational review. WIRAB and the WIRAB staff will continue to engage with WECC and to provide advice and guidance to the organization as appropriate.

Emerging Trends and System Risks

WIRAB staff engages in the following ongoing activities in order to provide independent expert advice on emerging reliability trends and system risks:

Event Analysis and Situational Awareness:

Understanding important operational issues confronting the BPS today, as well as in the past, is key to maintaining and improving reliability in the Western Interconnection. Event analysis and situational awareness matters need to be discussed in open and transparent forums, when appropriate. These types of discussions bring together utility operators, who deal with these types of issues on a day-to-day basis, with thought leaders to provide different perspectives that can add value to tackle reliability challenges. It is important to share lessons learned and to promote best practices to ensure that system operators have access to the tools and knowledge necessary to maintain a reliable grid in real-time.

WIRAB members and the WIRAB staff engage in relevant discussions and activities by attending and participating in WECC's standing committee meetings, monitoring the western Reliability Coordinators, and monitoring reliability activities in other forums. The WIRAB staff also provides leadership by conducting periodic outreach webinars and develops panel sessions for WIRAB's in-person meetings. These outreach opportunities are designed to promote discussions among Western regulators, policymakers, and other stakeholders regarding emerging trends and risks associated with system events.

Expanding Market Operations:

Organized markets continue to expand in the Western Interconnection. The Western EIM, operated by the California ISO, began operation in 2014 and has grown to include participants from 11 Western states and the Canadian Province of British Columbia, and continues to expand participation. The California ISO, in partnership with the EIM Entities and other stakeholders, is developing an approach to extend participation in their day-ahead market to the EIM Entities. The SPP launched its Western Energy Imbalance Service (WEIS) for several entities in the eastern part of the Western Interconnection, which have announced their intention to take those services. SPP also announced that it has received letters from several western utilities committing to evaluate full RTO membership. These market reforms could result in significant changes to system operations (e.g., transmission scheduling, congestion management) and create new reliability challenges and opportunities for the Western Interconnection.

The WIRAB staff monitors market reform efforts in the Western Interconnection and provides a forum for discussions about reliability-related issues associated with developing multiple markets in the Western Interconnection. The WIRAB staff monitors and participates in forums that are exploring these reliability issues associated with markets taking place at public utility commissions, regional TOP meetings, and ISO/RTO workshops. Additionally, the WIRAB staff engages in relevant WECC committee meetings and activities, such as those of WECC's MIC. WIRAB will continue to provide advice to WECC and to make recommendations as appropriate on reliability challenges and opportunities associated with expanding market operations in the Western Interconnection.

Essential Reliability Services:

As the resource mix continues to change, some reliability services that have traditionally been provided by synchronous generating resources may not be available to the same extent in the future as the BPS is becoming increasingly reliant on variable inverter-based resources. The electric utility industry must examine alternative opportunities to provide these essential reliability services and develop practices today that support ongoing BPS reliability under a new paradigm. Inverter-based resources, specifically solar PV generation, have historically been regarded as unable to provide the grid supporting services, such as frequency support and voltage control, traditionally provided by synchronous resources. However, new power electronic technologies available through advanced inverters and other grid-enhancing technologies now enable inverter-based generation to provide grid support similar to synchronous generators if programmed correctly. New policies and practices accounting for these emerging technologies need to continue to be developed to support grid reliability in the future.

WIRAB Members and the WIRAB staff develop expertise by attending, participating in, and monitoring WECC's standing committees, NERC's Reliability Issues Steering Committee (RISC), Reliability and Security Technical Committee (RSTC), the FERC's Reliability Technical Conferences; and other forums within the industry. WIRAB provides leadership and written advice to WECC and the FERC on policies regarding the risks associated with the provision of essential reliability services in the Western Interconnection. WIRAB staff also provides periodic outreach webinars and develops panel sessions for WIRAB's in-person meetings to discuss emerging trends. These forums provide an opportunity to inform Western policymakers and other interested

stakeholders of the emerging risks associated with the changing resource mix and the importance of maintaining essential reliability services in the Western Interconnection.

Periodic Reliability Assessments

High priority reliability topics for the Western Interconnection is the changing resource mix, including the increasing penetration of variable renewable resources, increasing retirements of baseload coal generation that would reduce inertia on the grid, and the growth of distributed energy resources that interface with the BPS. WIRAB strives for high quality resource assessments that address the reliability implications of the changing resource mix in the Western Interconnection over a 10- to 20-year timeframe. Production cost modeling can identify economic dispatch of a potential new resource mix for every hour over a future year and identify critical hours of system stress. Power flow analysis then examines these critical stress hours for traditional reliability parameters. The integrated use of production cost modeling and power flow analysis will be an essential tool for future reliability assessments of the Western Interconnection.

WIRAB monitors, advises, and participates in WECC's RAC to promote improved reliability assessments of the Western Interconnection. WIRAB will encourage and support the RAC in its efforts to integrate WECC's data and modeling capability to perform roundtrip reliability assessments that combine power flow analysis and production cost modeling. WIRAB will also monitor, engage, and communicate findings on leading research about the integration of variable energy resources into the Western Interconnection, such as the work of NERC's Inverter-Based Resource Performance Work Group. Further, WIRAB staff monitors and engages with National Laboratories, industry trade organization such as the Energy Systems Integration Group (ESIG), Registered Entities, and other researchers and organizations investigating the flexibility and reliability of the power system. WIRAB also provides outreach to Western states and provinces on the policy implications associated with new research.

Reliability Standards and Proactive Enforcement

WIRAB staff engages in the following ongoing activities in order to provide independent expert advice on the development and proactive enforcement of reliability standards:

Operations and Planning Reliability Standards:

The reliability standards were created to provide the minimum requirements for planning and operating the electric grid. The compliance and enforcement of these reliability standards ensure there is oversight and accountability of BPS owners and operators to maintain system-wide reliability. Reliability standards must be strict enough to guarantee that system reliability is maintained, but flexible enough to respond to the changing industry. It is essential to develop and review reliability standards to ensure they effectively preserve reliability while not being overly burdensome on the entities required to comply.

WIRAB staff develops WIRAB advice on the development and proactive enforcement of reliability standards by contracting with subject matter experts with direct knowledge of the efficacy of reliability standards and the burden of compliance on regulated entities. WIRAB staff attends, participates, and monitors WECC's Standing Committee meetings, WECC's Standards Committee meetings, WECC's Reliability and Security Workshop, NERC's standard development process, and other industry forums. When necessary, WIRAB provides written advice to WECC, NERC and the FERC on the implementation of specific standards within the Western Interconnection. WIRAB staff also conduct periodic outreach webinars and in-person panel discussions for WIRAB's meetings to consider emerging trends that may require changes to reliability standards in the Western Interconnection.

Physical and Cyber Security:

Physical and cyber security of the electric grid continues to represent issues of growing concern in the Western Interconnection and across the ERO. The Western Interconnection has experienced physical and cyber incidents that have had the potential to impact system reliability. Experiences from around the world demonstrate there is a greater threat to the electric grid reliability related to physical and cyber security. The Critical Infrastructure Protection (CIP) standards provide a baseline level set of requirements for registered entities to maintain the protection of critical assets of the BPS. The CIP standards must be risk-based to ensure that critical assets are protected while maintaining the flexibility to respond to the changing nature of potential threats. It is essential to develop and review the CIP standards to ensure they effectively preserve reliability while not being overly burdensome on the entities required to comply.

WIRAB stays abreast of significant incidents that have compromised both the physical and cyber security of the grid through secure briefings and updates from security experts. WIRAB works with WECC and subject matter experts to educate regulators on the steps registered entities take to maintain the physical and cyber security of the grid. WIRAB continues to monitor the development of NERC's CIP standards and will provide advice when appropriate. WIRAB continues to observe NERC's GridEx exercises, which give utilities the opportunities to demonstrate how they would respond to coordinated cyber and physical security events. WIRAB encourages entities to share lessons learned and best practices broadly across the Western Interconnection.

Section B – WIRAB Supplemental Financial

Information

2022 Business Plan and Budget

Working Capital Reserve

WIRAB projects it will have a working capital reserve of \$908,400 on December 31, 2021, as compared to a desired working capital reserve on December 31, 2022, of \$689,200. The surplus working capital reserve results in a \$219,200 reduction in WIRAB's funding requirement for 2022.

In its 2018 Business Plan and Budget, WIRAB changed its reserve policy to stabilize statutory assessments while reducing its surplus financial reserve over several budget cycles. The FERC allows WIRAB to carry a financial reserve under the proviso that any excess reserves be used to offset future assessments. WIRAB's funding assessments are calculated roughly nine months in advance of each budget year. This assessment is fixed, meaning that, once approved, it cannot be decreased or increased mid-year to match actual expenses more closely. The financial reserve allows for some budgetary flexibility.

Table B-1. Working Capital Reserve Analysis 2021 – 2022

WIRAB - Working Capital Reserve Analysis 2021-2022	
STATUTORY	
Beginning Working Capital Reserve (Deficit), December 31, 2020	969,581
Plus: 2021 Funding (from LSEs or designees)	986,300
Plus: 2021 Other funding sources	3,000
Minus: 2021 Projected expenses & capital expenditures	(1,050,500)
Projected Working Capital Reserve (Deficit), December 31, 2021	908,400
Desired Working Capital Reserve, December 31, 2022	689,200
Minus: Projected Working Capital Reserve, December 31, 2021	(908,400)
Increase(decrease) in funding requirement to achieve Working Capital Reserve	(219,200)
2022 Expenses and Capital Expenditures	918,900
Less: Penalty Sanctions	0
Less: Other Funding Sources	(1,000)
Adjustment: To achieve desired Working Capital Reserve	(219,200)
2022 NERC Assessment	698,700

Table B-2. 2022 Budget with 2023 & 2024 Projections

WIRAB - Statement of Activities and Change in Working Capital 2022, 2023, and 2024 Budget Projections							
STATUTORY							
	2022 Budget	2023 Projection	Variance 2023 Projection v 2022 Budget		2024 Projection	Variance 2024 v 2023 Projections	
			Over(Under)	% Change		Over(Under)	% Change
Funding							
WIRAB Funding							
Assessments	\$ 698,700	\$ 764,800	\$ 66,100	9.5%	\$ 841,800	\$ 77,000	10.1%
Penalty Sanctions	-	-	-	-	-	-	-
Total WIRAB Funding	\$ 698,700	\$ 764,800	\$ 66,100	9.5%	\$ 841,800	\$ 77,000	10.1%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	1,000	1,000	\$ -	0.0%	1,000	\$ -	0.0%
Miscellaneous	-	-	-	-	-	-	-
Total Funding (A)	\$ 699,700	\$ 765,800	\$ 66,100	9.4%	\$ 842,800	\$ 77,000	10.1%
Expenses							
Personnel Expenses							
Salaries	314,400	327,000	12,600	4.0%	340,100	\$ 13,100	4.0%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
Total Personnel Expenses	\$ 314,400	\$ 327,000	\$ 12,600	4.0%	\$ 340,100	\$ 13,100	4.0%
Meeting Expenses							
WIRAB Meetings	\$ 56,100	\$ 57,800	\$ 1,700	3.0%	\$ 59,500	\$ 1,700	2.9%
State Travel	\$ 30,200	\$ 31,100	\$ 900	3.0%	\$ 32,000	\$ 900	2.9%
Staff Travel	\$ 63,300	\$ 53,700	\$ (9,600)	-15.2%	\$ 55,300	\$ 1,600	3.0%
Total Meeting Expenses	\$ 149,600	\$ 142,600	\$ (7,000)	-4.7%	\$ 146,800	\$ 4,200	2.9%
Operating Expenses							
Consultants & Contracts	\$ 100,000	\$ 100,000	\$ -	0.0%	\$ 100,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
Total Operating Expenses	\$ 100,000	\$ 100,000	\$ -	0.0%	\$ 100,000	\$ -	0.0%
Total Direct Expenses	\$ 564,000	\$ 569,600	\$ 5,600	1.0%	\$ 586,900	\$ 17,300	3.0%
Indirect Expenses	\$ 354,900	\$ 369,100	\$ 14,200	4.0%	\$ 383,900	\$ 14,800	4.0%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
TOTAL BUDGET (B)	\$ 918,900	\$ 938,700	\$ 19,800	2.2%	\$ 970,800	\$ 32,100	3.4%
CHANGE IN WORKING CAPITAL (=A-B)¹	\$ (219,200)	\$ (172,900)	\$ 46,300	-	\$ (128,000)	\$ 44,900	-
FTEs	3.00	3.00	-	0.0%	3.00	-	0.0%

¹ Fixed Asset included in Indirect Expenses.

WIRAB projects a 2.2% increase to its annual budget in 2023 and a 3.4% increase in 2024. These increases reflect expected cost-of-living adjustments to personnel expenses for employees working in Denver, Colorado, and increased costs for meetings and travel.

Section C – Non-Statutory Activities

2022 Business Plan and Budget

WIRAB does not engage in non-statutory activities.

Section D – Additional Consolidated Financial Statements

2022 Business Plan and Budget

Statement of Financial Position

Table D-1 provides WIRAB’s Statement of Financial Position as of the following dates:

- As of June 30, 2020, per audit
- As of December 31, 2021, projected
- As of December 31, 2022, as budgeted

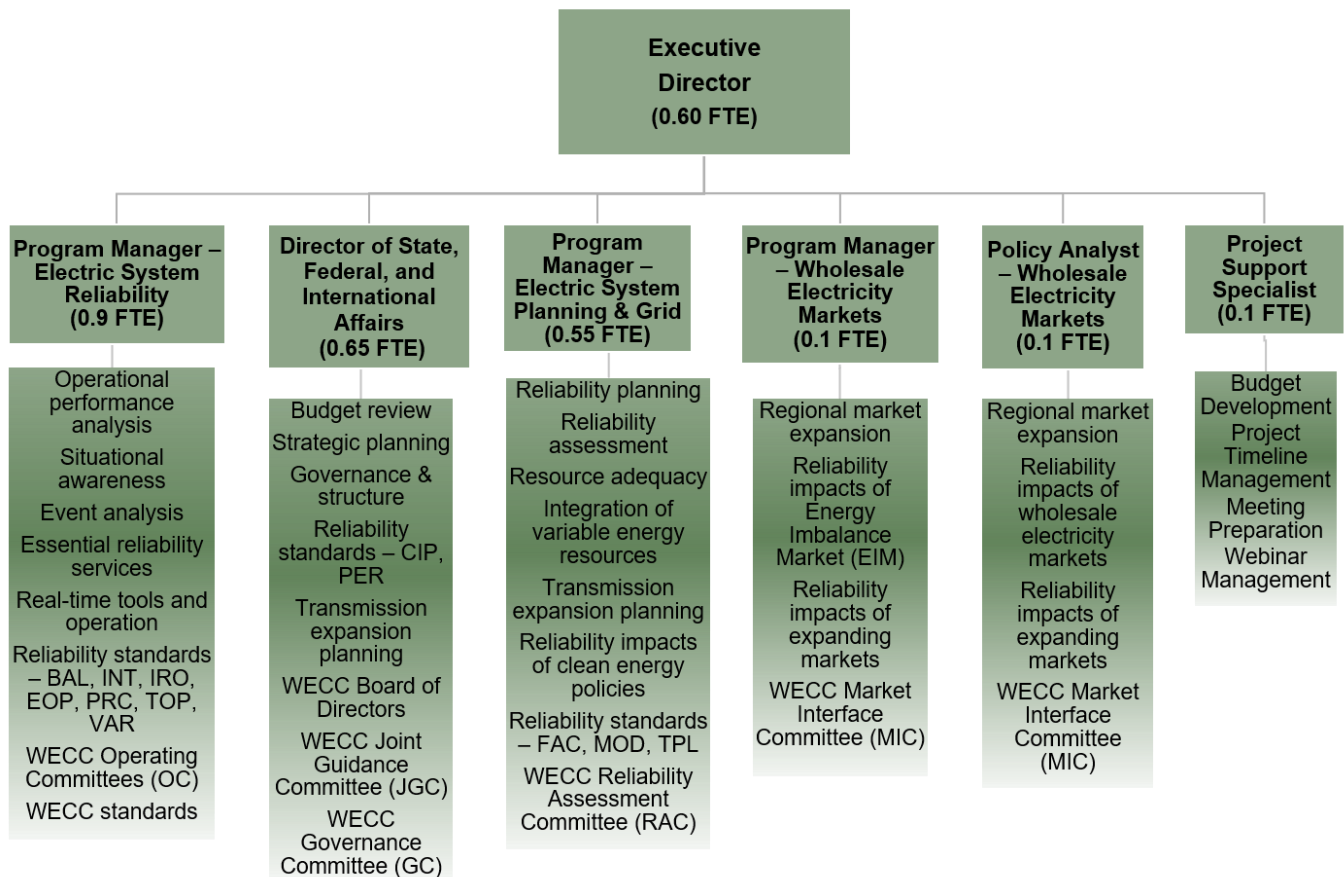
Table D-1. Statement of Financial Position, Three-Year Comparison

WIRAB - Statement of Financial Position				
STATUTORY				
	As of June 30, 2020 (Audit)	As of December 31, 2021 (Projected)	As of December 31, 2022 (Budgeted)	
Assets				
Cash and Investments	\$ 1,123,869	\$ 908,400	\$ 689,200	
Total Assets	\$ 1,123,869	\$ 908,400	\$ 689,200	

Appendix A – Organization Chart

2022 Business Plan and Budget

The WIRAB Staff Organization Chart is shown below.



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**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 10

**NERC MANAGEMENT'S RESPONSES
TO STAKEHOLDER COMMENTS SUBMITTED
ON DRAFT #1 OF NERC'S
2022 BUSINESS PLAN AND BUDGET**

Re: Management Response to 2022 Business Plan and Budget (BP&B) Draft 1 Comments

Date: July 15, 2021

The deadline for comments on the first draft of NERC's 2022 BP&B ended on June 18, 2021. Six comment submissions were received, which are posted on NERC's website. Generally speaking, comments acknowledged NERC's budgetary emphasis on addressing priority bulk power system (BPS) reliability and security risks while also expressing concerns with the 2022 budget and assessment increases in light of the current fiscal environment and realities facing the industry.

NERC remains sensitive to the economic uncertainties facing the sector as we navigate and eventually emerge from the COVID-19 pandemic but also underscores the extraordinary costs to nearly 400 million North American citizens if adequate and preventive measures are not taken in response to recent risks threatening BPS reliability and security. From supply chain compromise to several cyber breaches and cold and record heat weather-related events, there are immediate needs to continue to reliably and securely support the BPS. NERC and the Regional Entities, in our role as the Electric Reliability Organization (ERO), are accountable for assuring this mission, and continue to thoughtfully balance fiscal concerns with the very real evolution of BPS risk into different arenas. Below is a summary of the individual comments and NERC management's responses.

American Public Power Association (APPA), Edison Electric Institute (EEI), and Large Public Power Council (LPPC) Joint comments submitted by APPA, EEI, and LPPC emphasized that NERC should (1) identify and measure savings projected from tools or process improvements, including Align and the ERO Secure Evidence Locker (SEL), and create metrics around investments to show their value in enhancing reliability; (2) ensure BP&B activities align with priorities established by the Reliability Issues Steering Committee (RISC), and defer or eliminate those that do not; and (3) leverage and share resources across the ERO Enterprise and consider shared purchasing. APPA, EEI, and LPPC also questioned the need for NERC to conduct real-time situation awareness, including situation awareness efforts related to natural gas, requested more detailed support for the proposed increase of full-time equivalents (FTEs) in the Reliability Standards and Electricity Information Sharing and Analysis Center (E-ISAC) areas, and expressed that meeting and travel costs should remain flat or be reduced.

NERC Management Response

NERC appreciates and has given due consideration to the comments submitted by APPA, EEI, and LPPC. NERC offers the following responses to the remarks and recommendations summarized above.

- NERC has an internal Information Technology (IT) investment review and scoring process, which measures and validates if a technology project achieved the value identified in the business case. This process will apply to the Align and ERO SEL projects. NERC would however note that, while the implementation of Align will replace the individual Compliance Monitoring and Enforcement Program (CMEP) applications across the ERO Enterprise and reduce the historical costs for these legacy systems, these modest cost savings were not the primary justification for the project. The benefit of both Align and the ERO SEL is the improvement

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in the consistency and quality of CMEP processes and data protection, which promotes both effectiveness and efficiency. In addition, the security features of the ERO SEL are requiring the Regional Entities to significantly modify their work practices in reviewing registered entity evidence, which is driving the upward pressure on the Regional Entity CMEP staff in the near term. Also, until Align is fully deployed, the Regional Entities are unable to retire their legacy systems. Finally, it should be noted that NERC's investment in Align and the ERO SEL also represents an untold savings over the "avoided cost" for each ERO organization to rebuild its own individual applications, which would inevitably have been incurred over time, especially with the heightened security requirements on registered entity evidence handling.

- NERC is exploring options for how to meaningfully measure the efficiencies gained and/or impact to enhancing reliability from its investments in resources and tools, and welcomes input from industry in developing these metrics.
- NERC's BP&B is guided by the *ERO Enterprise Long-Term Strategy*, which is aligned with BPS risks identified by the RISC and reviewed annually by ERO Enterprise leadership to confirm the continued harmonization with the RISC's work and the highest priorities for the ERO Enterprise.
- NERC and the Regional Entities continue to work on sharing and leveraging resources across the ERO Enterprise. The ERO Enterprise has collaboration groups focused on both the individual program areas and shared services, which are centers for knowledge and best practice sharing as well as identifying ERO-wide efficiencies, including training and joint purchasing opportunities. NERC has also been leading ERO-wide efforts to help improve cyber and data security. This includes the development and implementation of Align and the ERO SEL, a dedicated and focused resource to lead overall ERO security, and IT security audits for the ERO Enterprise. These efforts do not always result in a categorical financial return, particularly with respect to the inclusion of funding for ERO-wide initiatives in NERC's budget; rather, these efforts promote consistency and quality, replace funding for these strategies at the Regional Entities, and support the ERO Enterprise's strategic focus area of capturing effectiveness, efficiency, and continuous improvement opportunities.
- NERC is required to maintain real-time situation awareness under Section 1001 of the Rules of Procedure, and to provide leadership coordination, technical expertise, and assistance to the industry in responding to events as necessary. The 2022 budget also does not include consulting expenses for enhancing natural gas situation awareness; the language in question will be clarified in the second BP&B draft.
- In response to the comment related to what additional activities in Reliability Standards warrant an increase in FTEs, NERC notes that it is requesting to add one standards developer and one standards administrator due to increased activity related to (1) changes to operations and planning standards identified by the Reliability and Security Technical Committee (RSTC); (2) additional changes to critical infrastructure protection (CIP) standards necessitated by the escalating threat environment and recent supply chain compromises; and (3) the overall rapid transformation of the grid, especially in the areas of renewable resources and extreme events.

Also, NERC would like to clarify that the E-ISAC is not adding dedicated resources to support the downstream natural gas sector. Rather, the intent was to cite the E-ISAC's work related to coordination with the sector and the Downstream Natural Gas ISAC as one of many initiatives in support of the E-ISAC's long-term strategy that contribute to the overall need for additional resources. Clarifications related to FTE additions in Reliability Standards and E-ISAC will be addressed in the second draft of the BP&B.

- The 2022 budget for meeting and travel expenses has been increased from the 2021 budget, which assumed continued pandemic conditions for a portion of the year. However, the proposed 2022 budget amount remains 22% below the pre-pandemic 2020 budget amounts. Future in-person meetings will be guided by committee and stakeholder engagement requirements, and web meeting technologies will continue to be utilized when possible.

Canadian Electricity Association (CEA)

CEA recognized that the majority of increases in the NERC 2022 budget are aimed at addressing the highly challenging and evolving reliability and security environment. CEA encouraged NERC to examine (1) how its program structure can be more adaptable to effectively address challenges as they evolve and (2) the efficiency and value of program investments, and to provide better evidence that investments are providing tangible results and corresponding value. With respect to the E-ISAC, CEA recognized the increases in the context of the recent major security disruptions and evolutions. CEA encouraged NERC to continue engaging with stakeholders to ensure the full value of the E-ISAC is realized and to leverage capabilities available from other agencies and partners.

NERC Management Response

NERC appreciates CEA's comments and support for the 2022 BP&B's focus on priority BPS risks. With respect to CEA's constructive comments related to program and investment examination and a "continuous questioning and improvement culture," NERC offers the following responses, which are similarly noted in its responses to APPA, EEI, and LPPC above:

- Current practices NERC has in place to examine the results of its program investments include an internal IT investment review and scoring process, which measures and validates if a technology project achieved the value identified in the business case.
- NERC is exploring options for how to meaningfully measure the efficiencies gained and/or impact to enhancing reliability from its investments in resources and tools, and welcomes input from industry in developing these metrics.
- NERC's BP&B is guided by the *ERO Enterprise Long-Term Strategy*, which includes a strategic focus area to continuously capture effectiveness, efficiency, and continuous improvement opportunities. NERC does this in collaboration with stakeholders, and agrees that its ongoing touchpoints with the Member Representatives Committee (MRC) BP&B Input Group is a valuable mechanism for industry participation and feedback on these opportunities.
- Over time NERC is capturing program maturity benefits and efficiencies, as highlighted by the two FTE positions that are being redeploying from the Compliance Assurance area that are no longer needed.

Regarding the comments related to E-ISAC, NERC appreciates and remains strongly committed to continued engagement with stakeholders on furthering the value proposition of the E-ISAC in Canada while respecting and leveraging the similar work and capabilities from Canadian agencies.

Independent Electricity System Operator (IESO)

IESO expressed support for NERC's reliability and security activities, CEA's comments, the established assessment credit policy for certain Canadian entities, and IESO's partnership with the E-ISAC. IESO strongly encouraged NERC to reduce the budget and assessment increases shown in the first draft, recommending that NERC pursue reductions in office lease costs, reassess in-person meeting assumptions, and expand the use of capital financing and make use of available reserves to fund one-time expenses.

NERC Management Response

NERC appreciates IESO's comments and support, and directs IESO to NERC's responses to CEA's comments above. NERC has also given due consideration to IESO's recommendations to lower the 7.0% budget and 9.9% assessment increase shown in the first draft of the 2022 BP&B. After careful review, the second draft of NERC's BP&B includes the same meeting and travel expense assumptions as the first draft (see NERC's response to APPA, EEI, and LPPC related to this subject above). The second draft also does not reflect the use of reserves or additional capital financing in order to avoid (1) the rebound effect on 2023 assessments if reserves are used in 2022 (due to the relatively low amount of "one-time" costs in the budget) and (2) the impact of debt service on future year budget increases. However, NERC is pleased to report that the budget and assessment increases have been lowered in the second draft of its 2022 BP&B to a 6.2% budget and 8.9% assessment increase as a result of additional refining of expenses and revised assumptions for DC office lease costs. NERC is continuing to explore lease options for its Atlanta office facility, and believes it would be prudent to maintain adequate reserve levels to accommodate potential one-time costs associated with any Atlanta office lease change decisions.

Independent System Operator (ISO) Regional Transmission Organization (RTO) Council (IRC) Standards Review Committee (SRC)

The IRC SRC expressed strong support for NERC's 2022 budgetary emphasis on priority BPS risks and encouraged that, since a large portion of NERC's 2022 budget increase is in the E-ISAC, NERC publish the metrics provided in the *E-ISAC Long-Term Strategic Plan* at least annually.

NERC Management Response

NERC very much appreciates the IRC SRC's comments and support for its 2022 BP&B. The E-ISAC metrics are currently shared and reviewed with the Electricity Subsector Coordinating Council (ESCC) Member Executive Committee. The E-ISAC will consider opportunities for metric information sharing with a broader audience while maintaining security of sensitive information.

Midcontinent Independent System Operator (MISO)

MISO supported the comments filed by the IRC SRC.

NERC Management Response

NERC appreciates MISO's support for its 2022 BP&B and refers MISO to the responses provided for IRC SRC above.

National Rural Electric Cooperative Association (NRECA) on behalf of the Cooperative Sector

NRECA expressed support for the transparent ERO budget process. Comments on the 2022 BP&B encouraged NERC and/or the ERO Enterprise to (1) ensure E-ISAC metrics are evaluated and modified as needed to demonstrate the value of information sharing to E-ISAC members, and to consider how FTE increases for E-ISAC and the Cybersecurity Information Sharing Program (CRISP) might offset per-member cost reductions realized due to expansion of the program; (2) provide better justification for ERO FTE increases to support the CMEP and standards development efforts; and (3) consider evaluating a more consistent approach to operating reserves and their use across the ERO.

NERC Management Response

NERC appreciates the comments provided by NRECA. With respect to remarks related to the E-ISAC, NERC agrees with ongoing examination of the E-ISAC metrics to ensure they best demonstrate the E-ISAC's value, and recently created a performance management group to ensure, among other things, that the E-ISAC's metrics support the improvement of the quality, timeliness, and value of information sharing, data management, and analysis. NERC

also understands the concern regarding how FTE increases in the E-ISAC and CRISP areas could be offsetting CRISP per-member cost reductions that result from members being added to the program; however, NERC believes that any offset would be nominal given that the cost of these FTE increases is spread across all North American load-serving entities.

With respect to FTE increases in the CMEP and Reliability Standards areas, NERC first notes that it is reducing FTEs in 2022 in its compliance and enforcement programs as a result of the maturation of the program and NERC's need for resources in other areas to align with current strategic priorities. While there is increased work at the Regional Entities as a function of Align and (primarily) ERO SEL implementation and related process changes, the CMEP-related FTE adds at the Regional Entities in 2022 are (1) in some cases, budget neutral with respect to contractor conversions or repurposing of positions from other areas of the company and (2) mainly a result of increasing complexity related to the amount and nature of new standards and violations, as well as initiatives to expand risk and internal controls analysis programs. In response to the comment related to what additional activities in Reliability Standards warrant an increase in FTEs, NERC notes that it is requesting to add one standards developer and one standards administrator due to increased activity related to (1) changes to operations and planning standards identified by RSTC; (2) additional changes to CIP standards necessitated by the escalating threat environment and recent supply chain compromises; and (3) the overall rapid transformation of the grid.

Finally, NERC supports NRECA's comment on working toward a more consistent approach to operating reserves and their use across the ERO Enterprise organizations. NERC has been working with the finance leaders at the Regional Entities to standardize reporting of reserve categories and also provides feedback on their annual reserve usage and reserve levels. Similar to FTE resource planning and budgeting, the Regional Entity boards and executive teams determine their reserve policies and timing of reserve releases. However, this is an area where NERC and the Regional Entities will continue to explore areas for consistency where possible.

We appreciate the comments received and stakeholders' continuing support of NERC's mission. NERC encourages stakeholders' continued participation in the BP&B process during its development of the 2022 budget.

Sincerely,



Andy Sharp
Vice President and Chief Financial Officer

DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 11

**CALCULATION OF ADJUSTMENTS TO
AESO 2022 NERC ASSESSMENT,
IESO 2022 NERC ASSESSMENT,
NEW BRUNSWICK 2022 NERC ASSESSMENT,
QUEBEC 2022 NERC ASSESSMENT**

2022 New Brunswick Assessment Adjustment

Credit for NERC Compliance Costs

Includes adjustment for 2020 Actual v Budgeted Costs

	2022 NERC Budget Final	NB NEL Share (2020) 0.311%	2022 Compliance FTEs			NB Credit Budget)	Costs Paid by NB
			Total	Credit	% Credit		
NERC Compliance Program Budget							
Compliance Assurance	\$ 10,595,314	\$ 33,000	16.92	14.08	83.2%	\$ 27,456	\$ 5,544
Registration and Certification	1,968,657	6,131	3.76	3.57	95.0%	5,825	307
Enforcement	6,945,963	21,634	13.16	13.16	100.0%	21,634	-
Total Compliance Costs, including Fixed Assets	\$ 19,509,934	\$ 60,765	33.84	30.81		\$ 54,914	\$ 5,851
True-up 2020 Actual						5,629	
Additional Non-Compliance Costs							
SAFNR v3 support and maintenance	477,543	1,487	-	-	100.0%	1,487	-
2022 Total Compliance and SAFNR	\$ 19,987,477	\$ 62,252	33.84	30.81		\$ 62,031	\$ 5,851
2021 (Excludes Event Analysis)	\$ 21,482,358	\$ 67,026	35.72	32.33		\$ 58,174	\$ 6,278
Change from 2021 (Excludes Event Analysis)	\$ (1,494,881)	\$ (4,774)	(1.88)	(1.52)		\$ 3,857	\$ (427)
2022 Assessment							
2022 NERC Assessment	\$ 182,111						
2022 RE Assessment	401,569						
Total 2022 Assessment	\$ 583,680						
2021 Assessment							
2021 NERC Assessment	\$ 166,505						
2021 RE Assessment	357,478						
Total 2021 Assessment	\$ 523,983						
Change in Total Assessment	\$ 59,697						11.4%
Change in NERC Assessment	\$ 15,606						9.4%

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**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 12

**MEMORANDUM FOR NERC BOARD OF TRUSTEES
DESCRIBING NERC'S PARTICIPATION
IN PREPARATION OF AND REVIEW OF
REGIONAL ENTITY 2022 BUSINESS PLANS AND BUDGETS**

To: NERC Board of Trustees

From: Andy Sharp

Re: NERC Review of Regional Entity 2022 Business Plans & Budgets (BP&Bs)

Date: June 25, 2021

NERC has reviewed the Regional Entity 2022 BP&Bs and believes each provides for adequate resources to meet its delegated functions. Additional details on the review process and outcomes are discussed below.

In accordance with 18 C.F.R. Section 39.4, Rules of Procedure Section 1104, and Exhibit E of the regional delegation agreements, NERC oversees that the Regional Entities are adequately funded to accomplish their delegated functions. For each annual BP&B cycle, the Regional Entities submit their BP&Bs to NERC according to a schedule established collaboratively by NERC and the Regional Entities, and NERC conducts reviews of each, focusing on the following:

- Adequacy of the resources and activities to perform delegated functions;
- Alignment of the Regional Entity's goals, objectives, and major activities to the *ERO Enterprise Long-Term Strategy* and the related focus areas;
- Efforts to improve efficiency and control costs;
- Quality and completeness of the financial information presented, including:
 - Conformance with FERC budget reporting requirements and common presentation format;
 - Separation of statutory and non-statutory activities;
 - Supporting detail, including explanations for significant changes from the previous budget;
 - Reporting of reserve budgets and explanation of policies; and
 - Compliance with any budget or audit-related orders from FERC, if applicable.

These reviews generally occur according to the following timeline and process for each BP&B cycle:

- End of April/early May – Regional Entities provide their Draft 1 BP&Bs to NERC
- May through early June – Managerial staff from each NERC statutory program area reviews its respective sections of each Regional Entity BP&B and completes a template/checklist to indicate alignment with the above noted areas of focus. NERC Finance staff reviews for conformance to reporting requirements and presentation format. NERC also coordinates reviews of the Regional Entity BP&Bs with the external counsel that prepares the annual BP&B filings to provide feedback regarding overall document integrity and adherence to FERC expectations and requirements.

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Suite 600, North Tower
Atlanta, GA 30326
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- In accordance with the timeline for each Regional Entity board meeting to approve its final BP&B, NERC provides any necessary feedback to the Regional Entity on suggested revisions.
- Regional Entities address feedback and NERC confirms implementation of revisions.
- Mid-May through June – Regional Entities provide their NERC-reviewed BP&Bs to their boards for approval.
- Mid-June – Regional Entities submit their Net Energy for Load and Load-Serving Entity (LSE) data to NERC.
- Mid-June through July – NERC validates the data and calculates assessments for each LSE to be included with the submission of the final NERC and Regional Entity BP&Bs to the Board in August, followed by applicable regulatory filings.

The above process is in addition to regular touchpoints with the ERO Finance Group (comprised of NERC and Regional Entity financial representatives) to discuss and coordinate development of the BP&Bs, as well as ongoing discussions among the other ERO working groups and ERO Executive Committee.

In recent years, this review process has produced minimal feedback to the Regional Entities, as resources are generally found to be adequate with respect to Regional Entities fulfilling their delegated statutory functions. Any input has primarily been limited to suggestions on narrative language or, from the financial perspective, the implementation of recent Statement of Activity format changes. Any areas of improvement for the Regional Entities regarding activities, processes, and procedures are addressed through ongoing Regional Entity oversight and the collaborative work of the ERO Executive Committee and its working groups.

NERC recently completed reviews of the Regional Entity 2022 BP&Bs. The following is a summary of the review findings and outcomes:

- All Regional Entity budgets cover activities eligible for funding, consistent with the regional delegation agreements as well as section 215 criteria.
- All statutory areas for all Regional Entities have adequate resources to fulfill their delegated functions.
- All Regional Entities conform to necessary budget reporting and format requirements. NERC also worked with the Regional Entities to further alignment on reserve reporting, clarifying category definitions and overall presentation on reserve balances and penalty funds received.
- Other minor wording change suggestions.

Additionally, the ERO Finance Group continues to have ongoing discussions regarding reserve balances and policies, including long-term strategies for the use of these funds to offset future assessments.

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**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 13

**DONATION HOLDBACK AGREEMENT
BETWEEN PEAK RELIABILITY AND
WESTERN ELECTRICITY COORIDINATING COUNCIL**

DONATION HOLDBACK AGREEMENT

This Donation Holdback Agreement (this “**Agreement**”) is entered into as of [12-5], 2020 by and between Peak Reliability (“**Peak**”) and Western Electricity Coordinating Council (“**WECC**”) and, together with Peak, the “**Parties**”).

RECITALS

A. Peak is a dissolved Utah nonprofit corporation recognized as a tax-exempt 501(c)(4) mutual benefit corporation. Peak operated as an energy reliability coordinator prior to its dissolution with the Secretary of State of Utah on December 12, 2019 (the “**Dissolution Date**”).

B. WECC is a Utah nonprofit corporation recognized as a tax-exempt 501(c)(4) mutual benefit corporation. WECC works to effectively mitigate risks to the reliability and security of the Western Interconnection’s Bulk Power System.

C. Upon Peak’s wind-down, after the payment of all liabilities and member rebates, Peak expects to hold approximately \$4.1 million in excess cash (the “**Remaining Funds**”). Pursuant to Peak’s non-profit governance documents and IRS rules, Peak is required to donate the Remaining Funds to another non-profit organization, and Peak intends to donate the Remaining Funds to WECC (the “**Donation**”).

D. Peak does not anticipate any liabilities will arise after the completion of the Donation. However, Peak desires that, as a condition of the Donation, WECC agrees to hold back certain donated funds to cover unexpected future liabilities as set forth in this Agreement.

Accordingly, the parties agree as follows:

AGREEMENT

1. Holdback Fund. Upon acceptance of the Donation, WECC agrees to hold \$[300,000] of the amount donated by Peak to WECC (the “**Holdback Fund**”) in escrow, in a separate account not to be commingled with WECC’s general funds, for a period of five years from date on which the Donation is made. If Peak receives notice from a third party of an outstanding liability (a “**Third Party Claim**”) after the date of the Donation (other than any Excluded Claim described in Paragraph 2), then Peak shall notify WECC of such Third Party Claim, and WECC shall remit payment from the Holdback Fund directly to such third party to cover the amount of such Third Party Claim (a “**Third Party Payment**”).

2. Excluded Claims. In no event shall WECC be responsible for making any Third Party Payment if the Third Party Claim (a) involves an amount in excess of the amount remaining in the Holdback Fund or (b) is in connection with a lawsuit or any other legal, administrative, arbitral, or

other proceeding (each an “**Excluded Claim**”). For avoidance of doubt, there shall be no successor-in-interest liability to either Party under any theory of successor liability.

3. Governing Law. This Donation Holdback Agreement shall be governed by and construed in accordance with the internal laws of the State of Utah, without giving effect to any choice or conflict of law provision or rule.

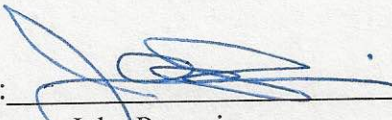
4. Merger and Amendment. This Agreement constitutes the sole, full and entire understanding and agreement between the Parties with respect to the subject matter contained herein, and any other written or oral agreements relating to the subject matter hereof existing between the Parties are expressly cancelled. No change, modification, or addition to this Agreement shall be valid unless in writing and signed by or on behalf of each of the Parties.

5. Counterparts and Electronic Signatures. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The Parties agree that transmission to each other of this Agreement with the transmitting party’s email or other electronic signature shall suffice to bind the party signing and transmitting this Agreement in the same manner as if the Agreement with an original signature had been delivered.

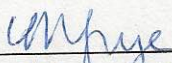
[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first set forth above.

PEAK RELIABILITY

By: 
Name: John Procario
Title: Board Chair

WESTERN ELECTRICITY COORDINATING COUNCIL

By: 
Name: Melanie Frye
Title: CEO

DOCKET NO. RR21-__-000

**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 14

**METRICS COMPARING
REGIONAL ENTITY OPERATIONS
BASED ON
THE 2022 BUDGETS**

2022 Metrics for Budget Submissions

Budget Metrics	MRO	NPCC ⁶	ReliabilityFirst	SERC	Texas RE	WECC
1 Number of registered entities ¹	220	239	262	267	262	435
2 Number of registered functions	604	472	264	726	482	1,038
3 Total NEL (GWh)	479,196	605,651	856,672	1,290,440	381,905	855,793
4 NEL (GWh) per registered entity	2,178	2,534	3,270	1,310	1,458	1,967
5 Total ERO Funding ²	\$17,832,414	\$ 16,113,445	\$ 26,936,627	\$ 26,194,934	\$15,562,115	\$30,298,000
6 ERO Funding per registered entity	\$ 81,056	\$ 67,420	\$ 102,812	\$ 98,108	\$ 59,397	\$ 69,651
7 ERO Funding per registered function	\$ 29,524	\$ 34,139	\$ 102,033	\$ 36,081	\$ 32,287	\$ 29,189
8 Total Budget ³	\$20,034,361	\$ 17,465,133	\$ 26,219,927	\$ 26,708,260	\$17,160,613	\$29,746,899
9 Total Budget per registered entity	\$ 91,065	\$ 73,076	\$ 100,076	\$ 100,031	\$ 65,499	\$ 68,384
10 Total Budget per registered function	\$ 33,169	\$ 37,002	\$ 99,318	\$ 36,788	\$ 35,603	\$ 28,658
11 Total Statutory FTE ⁴	71.00	49.90	67.60	104.00	66.00	152.50
12 Registered entity per Statutory FTE	3.099	4.790	3.876	2.567	3.970	2.852
13 Registered function per Statutory FTE	8.507	9.459	3.905	6.981	7.303	6.807
14 Total CMEP Budget ⁵	\$14,238,948	\$ 10,119,600	\$ 7,751,602	\$ 19,534,883	\$13,648,328	\$17,730,856
15 CMEP budget per registered entity	\$ 64,722	\$ 42,341	\$ 29,586	\$ 73,164	\$ 52,093	\$ 40,761
16 CMEP budget per registered function	\$ 23,574	\$ 21,440	\$ 29,362	\$ 26,908	\$ 28,316	\$ 17,082
17 Total CMEP FTE	36.56	24.95	53.00	50.45	41.75	67.75
18 Registered entity per CMEP FTE	6.0	9.6	4.9	5.3	6.3	6.4
19 Registered function per CMEP FTE	16.5	18.9	5.0	14.4	11.5	15.3

¹ As of June 2021.

² ERO Funding is the sum of Assessments and Penalty Release funds only. (Excludes funding such as Membership Dues, Testing Fees, Services & Software, Workshops, Interest, and Miscellaneous.)

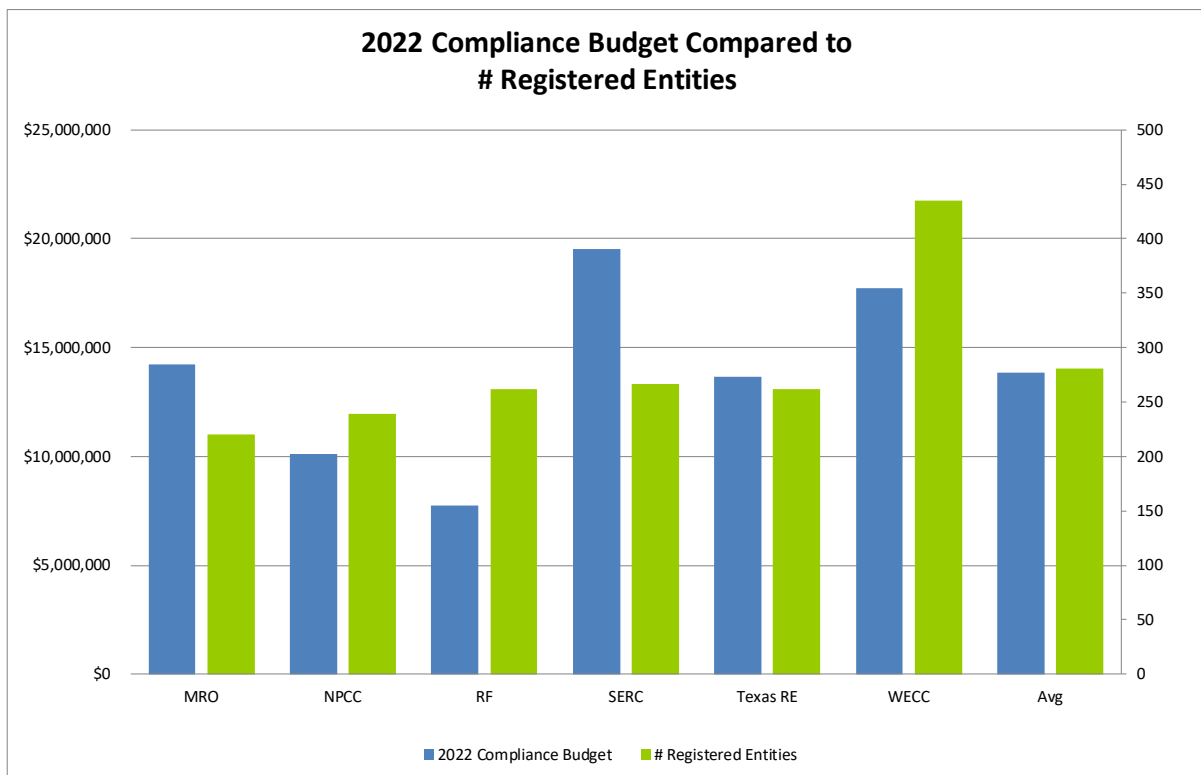
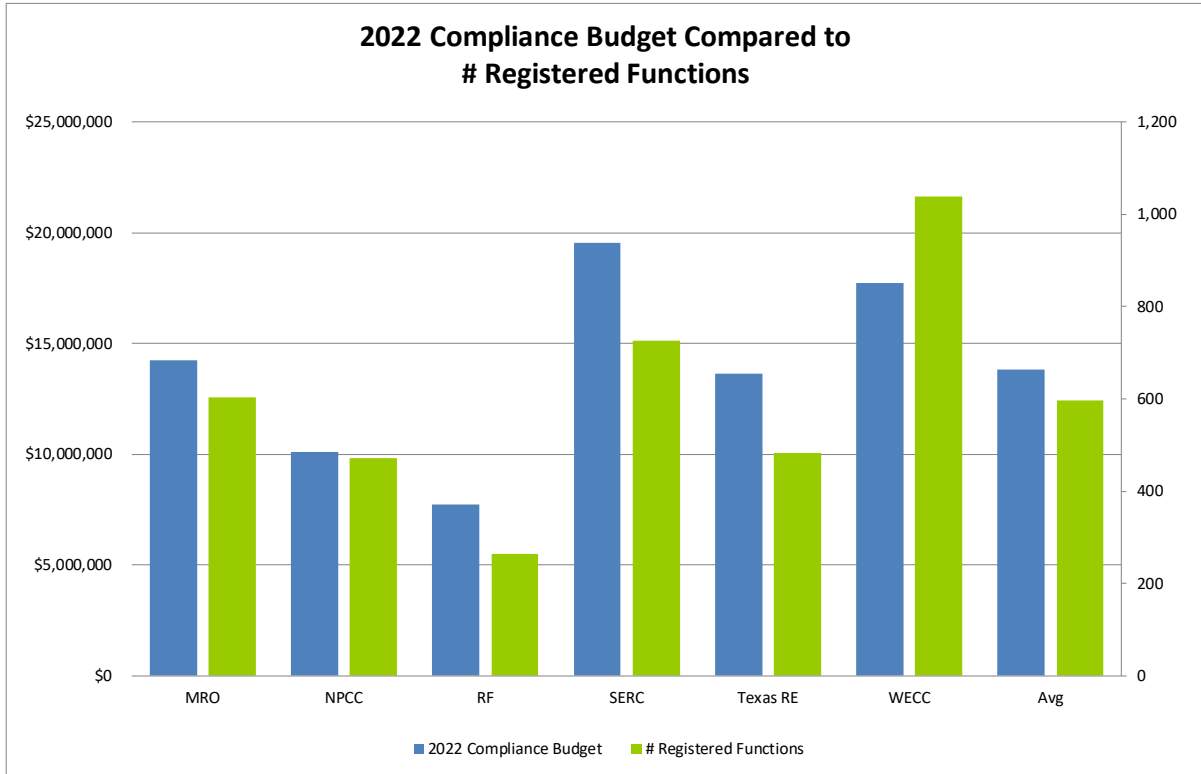
³ Total Budget is the sum of Total Expenses and Fixed Asset Expenditures.

⁴ Each FTE that works 2,080 hours per year is counted as one FTE. An FTE working less than the 2,080 hours per year is counted as a fractional FTE.

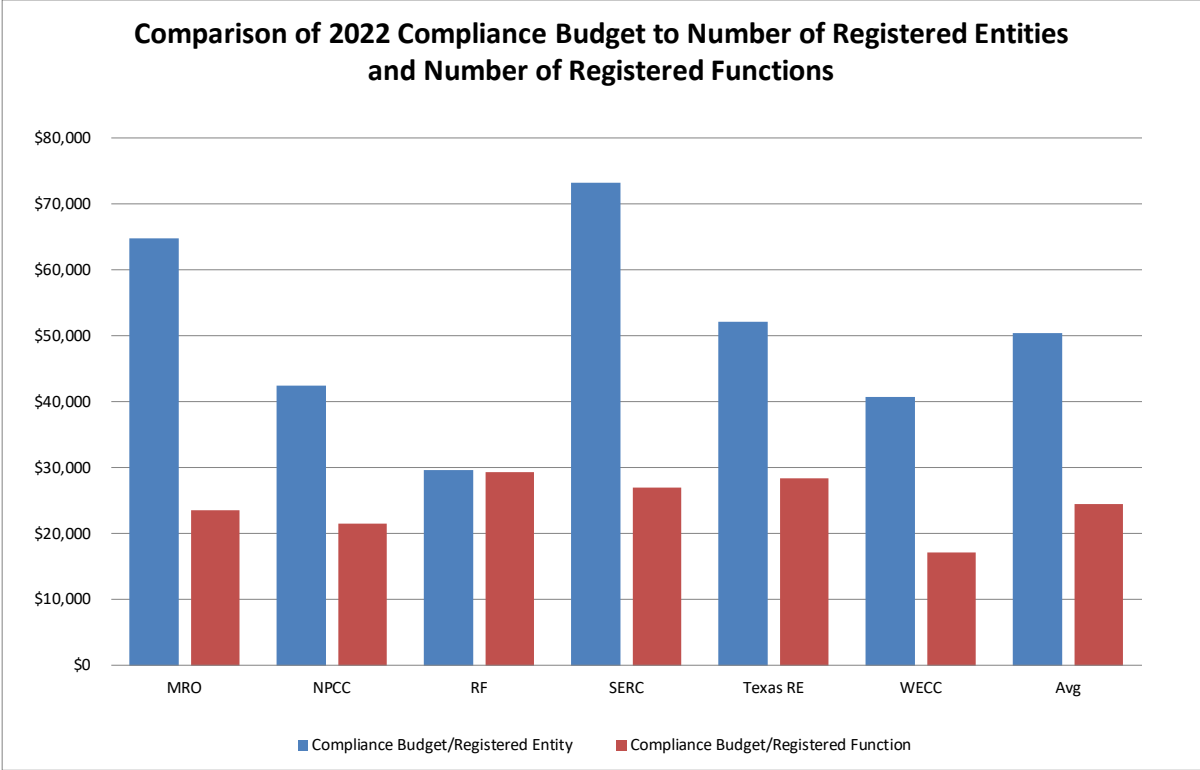
⁵ Total CMEP (Compliance, Enforcement, & Organization Registration and Certification) Budget is a sum of Direct Expenses, Indirect Expenses, and Fixed Asset Expenditures.

⁶ Due to the specifics of the compliance program included in the individual provincial MOUs for cross-border regional entities, some of these metrics are not directly comparable.

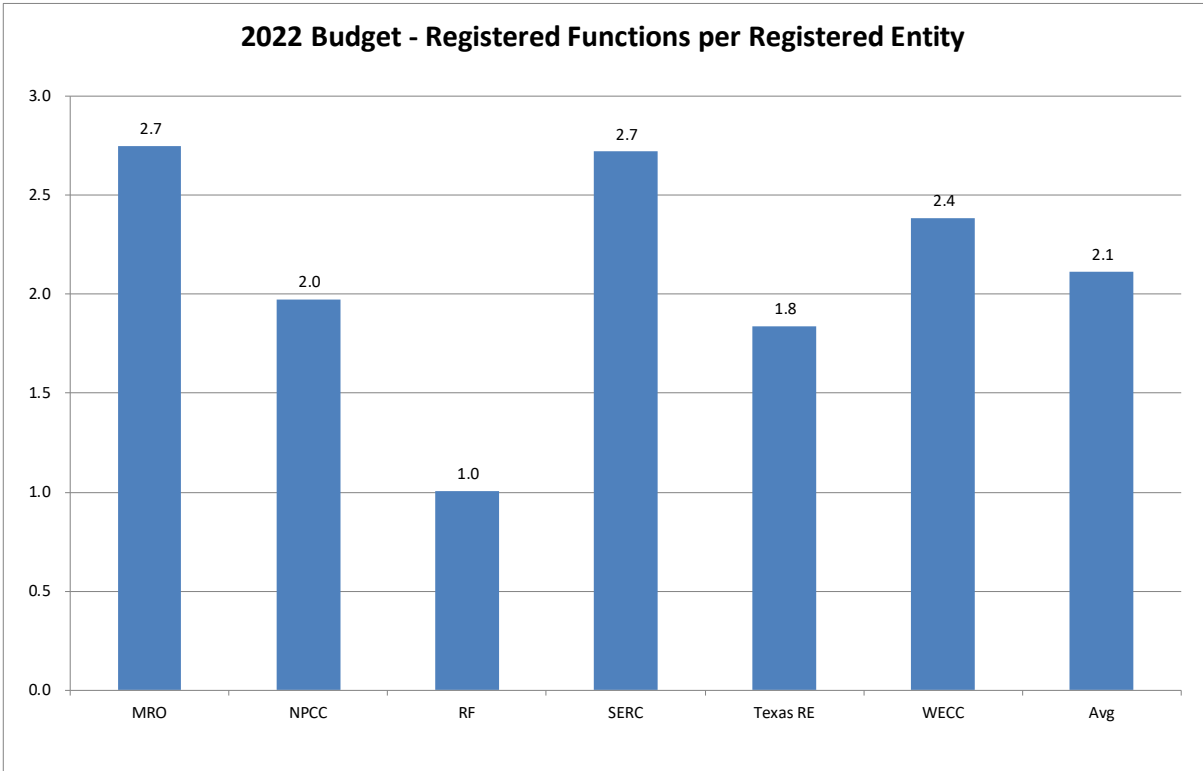
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2022 Compliance Budget	\$14,238,948	\$10,119,600	\$7,751,602	\$19,534,883	\$13,648,328	\$17,730,856	\$13,837,370
# Registered Entities	220	239	262	267	262	435	281
# Registered Functions	604	472	264	726	482	1,038	598



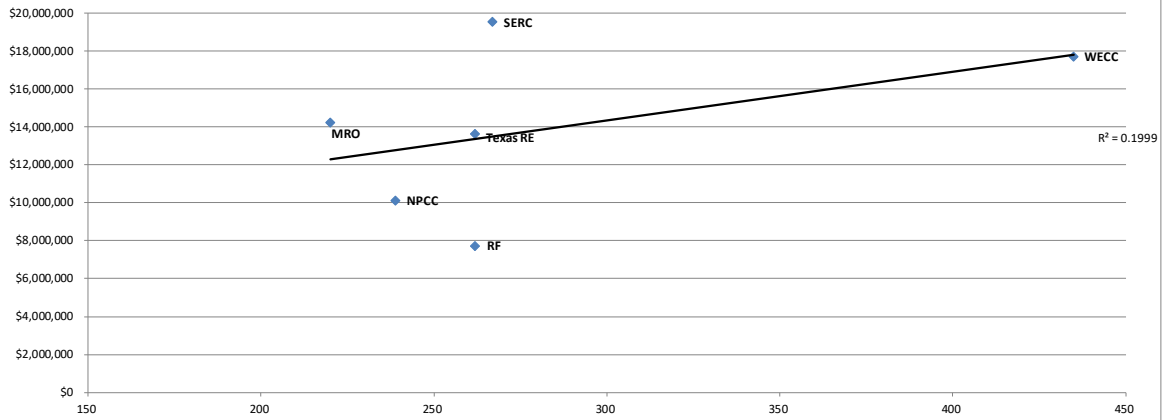
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
Compliance Budget/Registered Entity	\$64,722	\$42,341	\$29,586	\$73,164	\$52,093	\$40,761	\$50,445
Compliance Budget/Registered Function	\$23,574	\$21,440	\$29,362	\$26,908	\$28,316	\$17,082	\$24,447



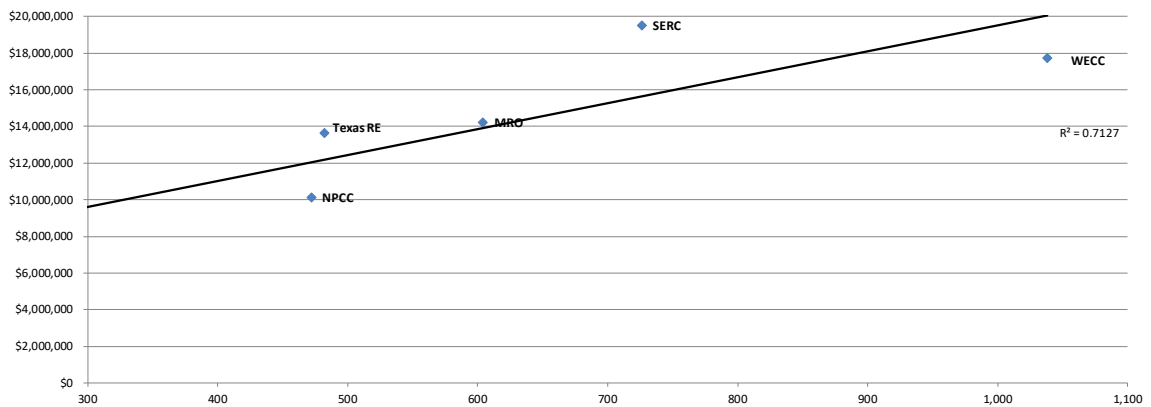
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
Registered Functions per Registered Entity 2022 Budget	2.7	2.0	1.0	2.7	1.8	2.4	2.1



Regional Entity 2022 Compliance Program Budget as Function of Number of Registered Entities

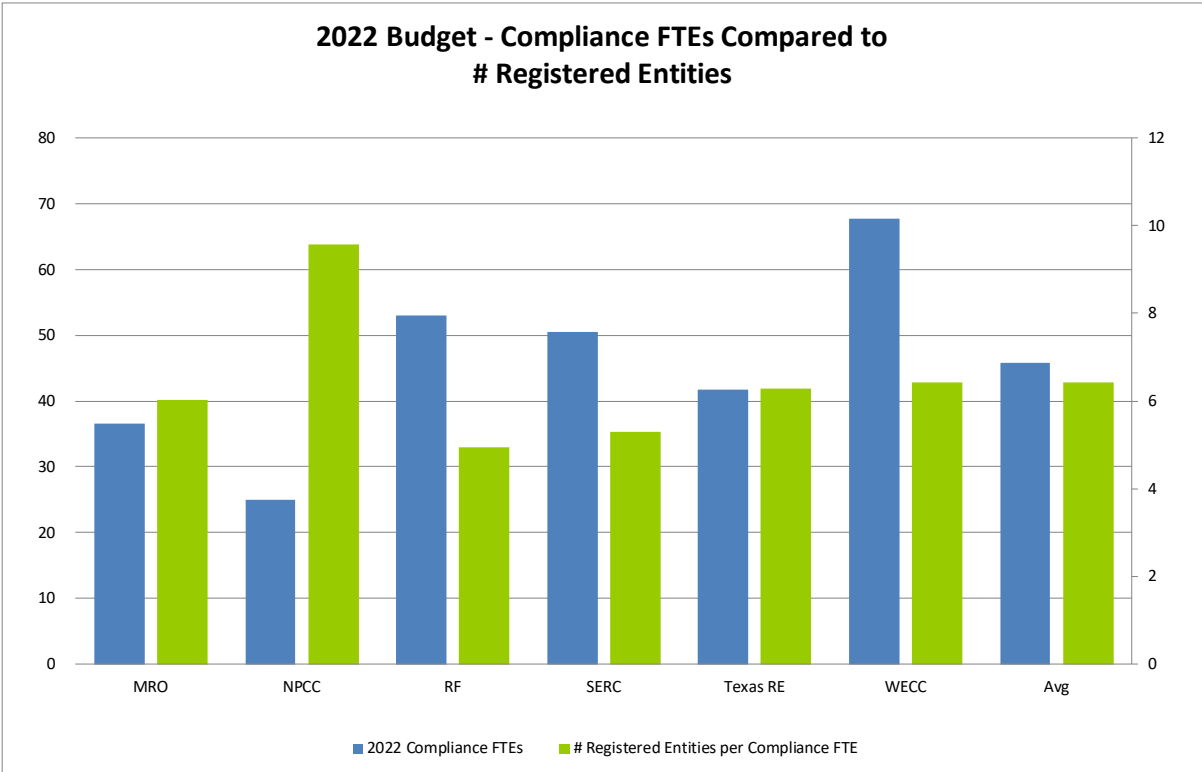
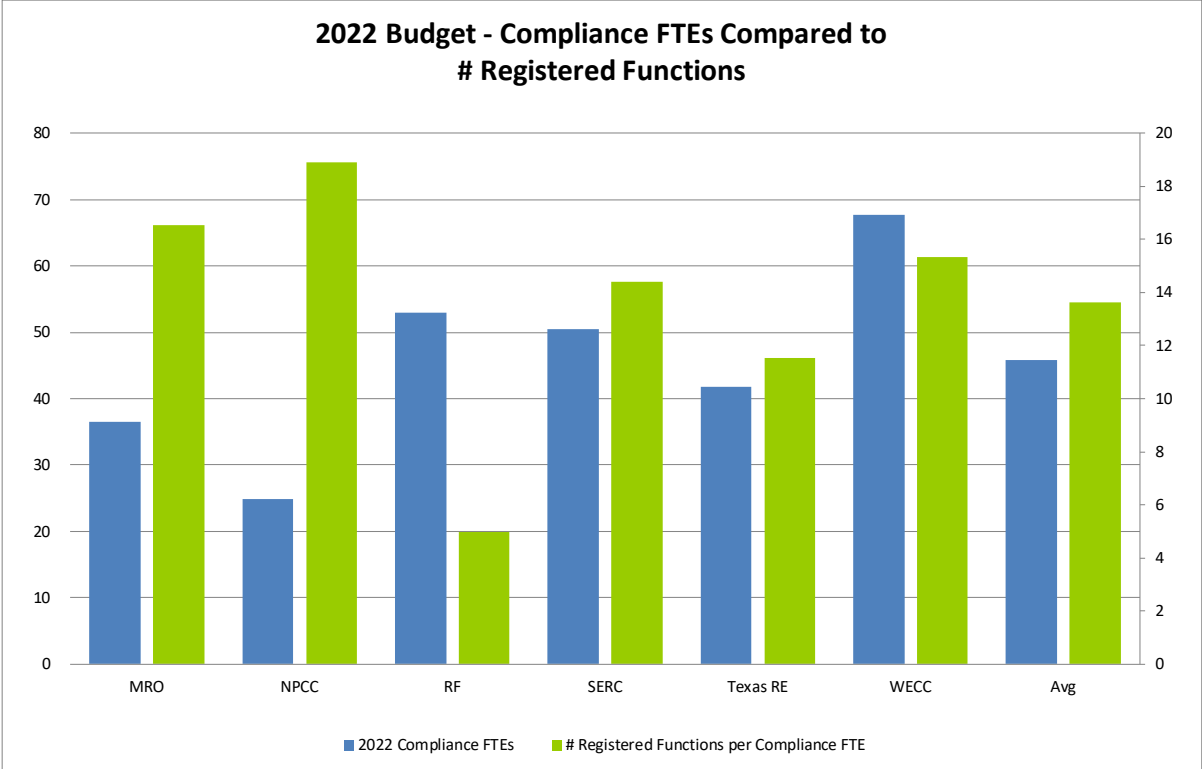


Regional Entity 2022 Compliance Program Budget as Function of Number of Registered Functions

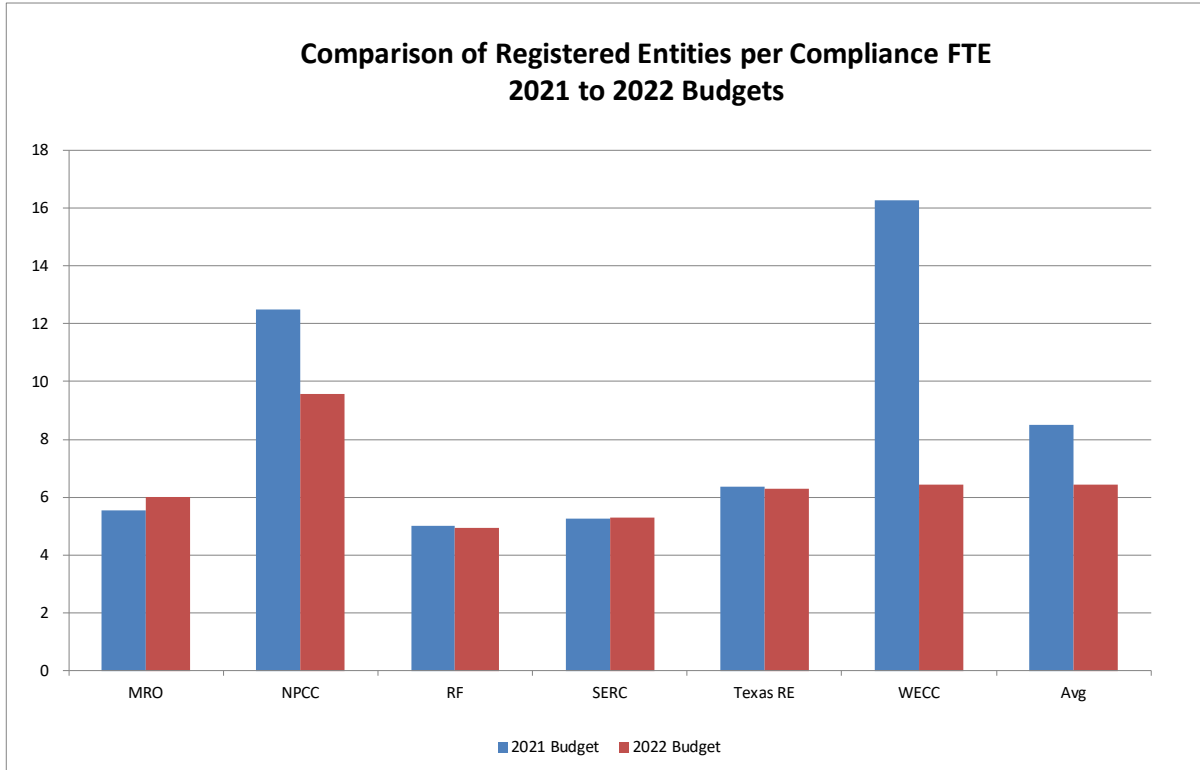


	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2022 Compliance FTEs	36.56	24.95	53.00	50.45	41.75	67.75	45.74

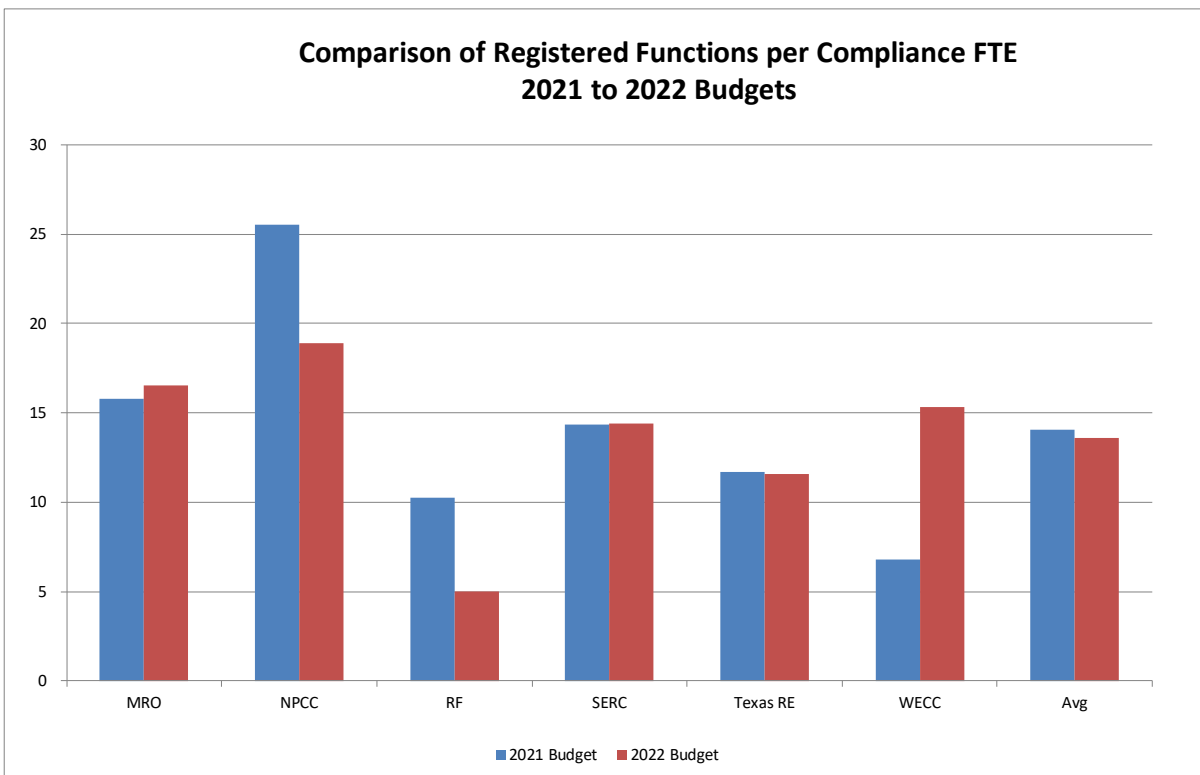
# Registered Entities per Compliance FTE	6.0	9.6	4.9	5.3	6.3	6.4	6.4
# Registered Functions per Compliance FTE	16.5	18.9	5.0	14.4	11.5	15.3	13.6



	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2021 Budget	5.6	12.5	5.0	5.3	6.4	16.3	8.5
2022 Budget	6.0	9.6	4.9	5.3	6.3	6.4	6.4



	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2021 Budget	15.8	25.5	10.2	14.4	11.7	6.8	14.1
2022 Budget	16.5	18.9	5.0	14.4	11.5	15.3	13.6



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**NORTH AMERICAN ELECTRIC RELIABILITY
CORPORATION**

2022 BUSINESS PLAN AND BUDGET FILING

ATTACHMENT 15

METRICS ON NERC AND REGIONAL ENTITY

ADMINISTRATIVE (INDIRECT) COSTS

BASED ON

THE 2021 AND 2022 BUDGETS

Analysis of Indirect (Administrative Services) Costs
2022 Budget versus 2021 Budget

2021 BUDGET					2022 BUDGET					
Total Statutory Budget	Total Statutory Direct Budget	Total Statutory Indirect Budget	% Statutory Indirect Budget to Total Statutory Budget	Ratio of Statutory Direct Budget to Indirect Budget		Total Statutory Budget	Total Statutory Direct Budget	Total Statutory Indirect Budget	% Statutory Indirect Budget to Total Statutory Budget	Ratio of Statutory Direct Budget to Indirect Budget
\$ 82,883,240	\$ 49,182,194	\$ 33,701,046	40.7%	1.46	NERC	\$ 88,028,283	\$ 51,103,265	\$ 36,925,018	41.9%	1.38
18,412,201	11,252,515	7,159,686	38.9%	1.57	MRO	20,034,361	12,092,092	7,942,269	39.6%	1.52
16,440,649	10,025,636	6,415,013	39.0%	1.56	NPCC	17,465,133	10,706,202	6,758,931	38.7%	1.58
24,785,492	17,694,926	7,090,566	28.6%	2.50	RF	26,219,927	18,457,780	7,762,147	29.6%	2.38
25,829,078	14,051,451	11,777,627	45.6%	1.19	SERC	26,708,260	14,833,574	11,874,686	44.5%	1.25
14,211,538	8,177,064	6,034,474	42.5%	1.36	Texas RE	17,160,613	9,969,676	7,190,937	41.9%	1.39
\$ 28,605,029	\$ 18,042,747	\$ 10,562,282	36.9%	1.71	WECC	29,746,899	18,657,895	11,089,004	37.3%	1.68
			30.2%	1.26	AVERAGE				30.4%	1.24

2021 BUDGETED FTEs					2022 BUDGETED FTEs					
Total Statutory FTEs	Total Statutory Direct FTEs	Total Statutory Indirect FTEs	Indirect FTE as % of Total FTE	# Direct to Indirect Statutory FTEs		Total Statutory FTEs	Total Statutory Direct FTEs	Total Statutory Indirect FTEs	Indirect FTE as % of Total FTE	# Direct to Indirect Statutory FTEs
213.38	136.30	77.08	36.1%	1.77	NERC	223.73	142.65	81.08	36.2%	1.76
66.00	50.00	16.00	24.2%	3.13	MRO	71.00	50.98	20.02	28.2%	2.55
42.11	32.23	9.88	23.5%	3.26	NPCC	49.90	38.95	10.95	21.9%	3.56
84.35	64.60	19.75	23.4%	3.27	RF	88.60	67.60	21.00	23.7%	3.22
100.00	67.40	32.60	32.6%	2.07	SERC	104.00	68.25	35.75	34.4%	1.91
63.00	48.25	14.75	23.4%	3.27	Texas RE	66.00	51.25	14.75	22.3%	3.47
148.50	106.55	41.95	28.2%	2.54	WECC	152.50	110.55	41.95	27.5%	2.64
			21.3%	2.14	AVERAGE				21.6%	2.12