

August 23, 2019

**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. RR19-\_\_\_\_-000  
Request for Acceptance of 2020 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 2020 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 2020 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 13, all of which are being transmitted in a single pdf file. Page ii in the Table of Contents to the narrative text list the 13 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  
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**ATTACHMENTS**

**Attachment 1:** Summary tables showing NERC’s proposed 2020 budget; the proposed 2020 budget for statutory activities of each Regional Entity; and the 2020 U.S. ERO statutory assessments of NERC and the Regional Entities

**Attachment 2:** NERC Proposed 2020 Business Plan and Budget

**Attachment 3:** Midwest Reliability Organization Proposed 2020 Business Plan and Budget

**Attachment 4:** Northeast Power Coordinating Council, Inc. Proposed 2020 Business Plan and Budget

**Attachment 5:** ReliabilityFirst Corporation Proposed 2020 Business Plan and Budget

**Attachment 6:** SERC Reliability Corporation Proposed 2020 Business Plan and Budget

**Attachment 7:** Texas Reliability Entity Proposed 2020 Business Plan and Budget

**Attachment 8:** Western Electricity Coordinating Council Proposed 2020 Business Plan and Budget

**Attachment 9:** Western Interconnection Regional Advisory Body Proposed 2020 Business Plan and Budget

**Attachment 10:** NERC Management’s Responses to Stakeholder Comments Submitted on Draft #1 and Draft #2 of NERC’s 2020 Business Plan and Budget

**Attachment 11:** Calculation of Adjustments to the AESO 2020 NERC Assessment, the IESO 2020 NERC Assessment, the New Brunswick 2020 NERC Assessment and the Québec 2020 NERC Assessment

**Attachment 12:** Metrics Comparing Regional Entity Operations Based on the 2020 Budgets

**Attachment 13:** Metrics on NERC and Regional Entity Administrative (Indirect) Costs Based on the 2019 and 2020 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, 2020;
- (2) the proposed Business Plans and Budgets for the year ending December 31, 2020, for the six Regional Entities: (i) Midwest Reliability Organization (MRO), (ii) Northeast Power Coordinating Council, Inc. (NPCC), (iii) ReliabilityFirst Corporation (ReliabilityFirst), (iv) SERC Reliability Corporation (SERC), (v) Texas Reliability Entity (Texas RE), and (vi) Western Electricity Coordinating Council (WECC);
- (3) the proposed Business Plan and Budget of the Western Interconnection Regional Advisory Body (WIRAB) for activities under §215(j) of the Federal Power Act (FPA) for the year ending December 31, 2020; and
- (4) NERC's proposed allocation of the proposed ERO statutory assessment of NERC, the Regional Entities, and WIRAB by country and among the Regional footprints, and the proposed assessments to the load-serving entities (LSE) within each Region to collect the allocated statutory funding requirements.

This filing includes the following attachments:

**Attachment 1** is a set of summary tables showing (i) NERC's proposed 2020 budget by program, (ii) the proposed 2020 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 2020 Business Plan and Budget and the allocation of assessments by Region and LSE to recover the resulting statutory funding requirements for 2020 (as well as the assessments to recover the statutory funding requirements of the Regional Entities and WIRAB).

**Attachments 3 through 9** contain the detailed 2020 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 and Draft #2 of NERC's 2020 Business Plan and Budget during the budget development process.

**Attachment 11** contains the calculation of the adjustments to the Alberta Electric System Operator (AESO) 2020 NERC assessment, the Ontario Independent Electric System Operator (IESO) 2020 NERC assessment, the New Brunswick 2020 NERC assessment, and the Québec 2020 NERC assessment, for credits for certain NERC Compliance

Monitoring and Enforcement Program (CMEP) and Event Analysis and Situation Awareness Program costs.

**Attachment 12** provides metrics, based on the 2020 budgets, comparing Regional Entity operations.

**Attachment 13** contains metrics, based on the 2019 and 2020 budgets, on NERC and Regional Entity administrative (indirect) costs.

The Commission's regulations require the ERO to file its proposed entire annual budget for statutory and non-statutory activities with the Commission at least 130 days before the beginning of the ERO's fiscal year. NERC's 2020 fiscal year will begin January 1, 2020. The filing must also contain the entire annual budget of each Regional Entity for statutory and non-statutory activities and include supporting materials, including the ERO's and each Regional Entity's complete business plan and organization chart, and explanation of the proposed collection of all dues, fees and charges and the proposed expenditure of funds collected. 18 C.F.R. §39.4(b). The information required by 18 C.F.R. §39.4(b) is included in this filing. In accordance with 18 C.F.R. §39.4(c), NERC requests issuance of an order by November 2, 2019, accepting the proposed Business Plans and Budgets and approving the assessments submitted in this filing.<sup>1</sup> Entry of the Commission's order by November 2, 2019 will enable billings to be issued to the LSEs or their designees for assessments with initial payment dates commencing on or about January 1, 2020, 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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<sup>1</sup>18 C.F.R. §39.4(c) states: "The Commission, after public notice and opportunity for hearing, shall issue an order either accepting, rejecting, remanding or modifying the proposed Electric Reliability Organization budget and business plan no later than sixty (60) days in advance of the beginning of the Electric Reliability Organization's fiscal year."

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### **III. OVERVIEW OF PROPOSED BUDGETS AND FUNDING REQUIREMENTS**

#### **A. Development of the 2020 Business Plans and Budgets**

NERC prepared its 2020 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 by stakeholders. Development of the annual business plans and budgets builds off of the *ERO Enterprise Long-Term Strategy*, approved by the NERC Board in November 2017, which discusses key challenges and strategic focus areas for the ERO Enterprise over the next five to seven years. (NERC uses the term “ERO Enterprise” to refer to NERC and the Regional Entities.) During the business plan and budget development process, successive versions of the 2020 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 to provide comments. Throughout the development of its 2020 Business Plan and Budget, NERC management also held a number of meetings and conference calls with a Business Plan and Budget Input Group formed by the NERC Member

Representatives Committee (MRC).<sup>2</sup> The following chronology highlights important steps in the preparation of the NERC and Regional Entity 2020 Business Plans and Budgets and review of the WIRAB 2020 Business Plan and Budget.

- On October 9, 2018, a conference call was held with the MRC Business Plan and Budget Input Group to initiate discussions relating to development of the 2020 business plan and budget.
- In a November 6, 2018, meeting, the NERC FAC reviewed the proposed schedule for development of the 2020 business plans and budgets.
- On November 7-8, 2018, the ERO Finance Group, comprised of Finance representatives from NERC and each of the Regional Entities, met to review strategic goals and objectives for 2020 and discuss how they would be translated into the NERC and Regional Entity 2020 business plans and budgets.
- On November 13, 2018, January 17, 2019, March 6, 2019, and April 10, 2019, additional conference calls were held with the MRC Business Plan and Budget Input Group.
- On January 23, 2019, February 19, 2019, and March 20, 2019, the ERO Finance Group met by conference call to discuss progress and status in the development of the 2020 business plans and budgets.
- On April 24, 2019, the quarterly meeting with trade associations and the North American Generation and Transmission Forums, to which the MRC Business Plan and Budget Input Group was also invited, included a high-level overview of the NERC 2020 Business Plan and Budget.
- Also on April 24, 2019, the NERC FAC met in closed session to review assumptions for the 2020 NERC Business Plan and Budget.
- On April 25, 2019, the ERO Finance Group held another meeting by conference call.
- In late April and early May, 2019, the Regional Entities provided drafts of their 2020 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 late April, 2019, and continuing into May, 2019, the Regional Entities posted drafts of their 2020 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 public review process. (See §V.A below for further information

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<sup>2</sup> 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 the stakeholder review opportunities provided by each Regional Entity for its 2020 Business Plan and Budget.)

- The May 8, 2019, meeting of the NERC FAC include a preview of the NERC 2020 Business Plan and Budget and the combined ERO 2020 budgets and assessments.
- On May 17, 2019, drafts of the NERC, Regional Entity, and WIRAB 2020 Business Plans and Budgets, as well as information on the combined 2020 ERO budgets and assessments, were posted on the NERC website for stakeholder comment. Comments were requested by June 28, 2019. Notification of the posting (and of all subsequent postings) was sent by e-mail to a broad distribution list of interested persons and entities. Six sets of written stakeholder comments were received and were posted on the NERC website.<sup>3</sup>
- On May 21, 2019, the ERO Finance Group met.
- Also on May 21, 2019, representatives of NERC, each Regional Entity, and WIRAB met with Commission Staff to discuss the 2020 business plans and budgets and the combined ERO 2020 budgets and assessments.
- On May 30, 2019, the FAC held a conference call and webinar to review the drafts of the NERC, Regional Entity, and WIRAB 2020 business plans and budgets and the combined ERO Enterprise 2020 budgets and assessments.
- On June 17, 2019, the ERO Finance Group held another meeting by conference call.
- At various dates from late May to late June 2019, the Boards or other governing bodies of the Regional Entities and of WIRAB approved their respective proposed 2020 Business Plans and Budgets. The approved Regional Entity and WIRAB Business Plans and Budgets were submitted to NERC in late June and early July.
- On July 2, 2019, another conference call was held with the MRC Business Plan and Budget Input Group.
- On July 10, 2019, a closed meeting was held with the FAC to review assumptions for Draft #2 of NERC's 2020 Business Plan and Budget.
- On July 11, 2019, the 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 the posted draft of NERC's 2020 Business Plan and Budget, as well as a preview of the second draft.

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<sup>3</sup> Comments were submitted by: Bonneville Power Administration; Canadian Electricity Association; Edison Electric Institute; the Independent Electricity System Operator (IESO); the ISO RTO Council Standards Review Committee; and the National Rural Electric Cooperative Association (NRECA). The comments are posted at: <https://www.nerc.com/gov/bot/FINANCE/Pages/2020-NERC-Business-Plan-and-Budget.aspx>. NERC management's responses to these comments are included in **Attachment 10**.

- On July 11, 2019, NERC posted on its website management's responses to the comments that were submitted on Draft #1 of the 2020 Business Plan and Budget. **Attachment 10** to this filing provides the text of the responses.
- Also on July 11, 2019, the final versions of the Regional Entity and WIRAB 2020 Business Plans and Budgets were posted on the NERC website, along with the combined 2020 ERO budgets and assessments.
- On July 15, 2019, Draft #2 of the NERC 2020 Business Plan and Budget was posted on the NERC website. Any additional stakeholder comments on Draft #2 of the NERC 2020 Business Plan and Budget were requested by July 31, 2019. Two sets of stakeholder comments were submitted and were posted on the NERC website.<sup>4</sup>
- On July 16, 2019, the ERO Finance Group held a meeting by conference call.
- On July 18, 2019, the FAC held a conference call and webinar to review Draft #2 of the NERC 2020 Business Plan and Budget, the final Regional Entity and WIRAB business plans and budgets, and the combined ERO 2020 business plans and budgets.
- On August 2, 2019, a conference call was held with the MRC Business Plan and Budget Input Group.
- On August 7, 2019, NERC's responses to the stakeholder comments on Draft #2 of the NERC 2020 Business Plan and Budget were posted on the NERC website. **Attachment 10** to this filing provides the text of the responses.
- Also on August 7, 2019, the final NERC, Regional Entity, and WIRAB 2020 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.
- During the August 14, 2019 meeting of the MRC, an additional opportunity was provided to stakeholders for input and questions regarding the final 2020 business plans and budgets of NERC and the Regional Entities.
- At the August 14, 2019 open meeting of the FAC, NERC management presented the final version of the NERC 2020 Business Plan and Budget and proposed assessments and discussed responses to the comments received on Draft #2. The FAC recommended NERC Board approval of the 2020 business plans and budgets and associated statutory assessments for NERC, the Regional Entities and WIRAB.
- At its August 15, 2019 meeting, the NERC Board approved the 2020 business plans and budgets and the proposed 2020 statutory assessments for NERC, the Regional Entities and WIRAB.

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<sup>4</sup> Comments were submitted by IESO and NRECA on behalf of the Cooperative Sector. The comments are posted at: <https://www.nerc.com/gov/bot/FINANCE/Pages/2020-NERC-Business-Plan-and-Budget.aspx>. NERC management's responses to these comments are included in **Attachment 10**.

In summary, the processes followed by NERC and the Regional Entities to develop the proposed 2020 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 numerous opportunities for stakeholder input and comment, including in particular from the MRC Business Plan and Budget Input Group, the full MRC, and trade associations and forums.

## **B. NERC's 2020 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
- Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement,
- Reliability Assessments and Performance Analysis (RAPA)
- Situation Awareness
- Event Analysis
- Electricity Information Sharing and Analysis Center (E-ISAC), including the Cyber Risk Information Sharing Program (CRISP)
- Personnel Certification and Continuing Education
- Training and Education

Each of these program areas carries out or supports implementation of one or more of the statutory activities of the ERO as specified in §215 of the §and the Commission's regulations and orders. NERC's statutory, or "direct," programs are supported by its Administrative Services, or "indirect," programs: General & Administrative, 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 area in Section A and in Exhibit A of **Attachment 2**.

The 2020 Business Plan and Budget contains the information required by 18 C.F.R.

§39.4(b). The initial sections of **Attachment 2**, Preface and About NERC, provide an overview of NERC's organization, governance, scope, responsibilities, and funding.

The Introduction and Executive Summary summarizes NERC's resource requirements for 2020 including total full-time equivalent employees (FTEs), statutory expenses, and required ERO funding assessments. It describes the ERO Enterprise's strategic and operational planning process, the principal reliability risks on which it is focused, and its ongoing focus on controlling costs and improving the effectiveness and efficiency of operations.

The Introduction and Executive Summary provides an overview of NERC's 2020 budget, funding, and staffing requirements, with comparisons to the 2019 budget, by the principal categories of funding and expenses and by statutory program area. It describes NERC's key business planning assumptions used in developing the 2020 budget. It also describes NERC's 2020 capital spending budget and the 2020 budgeted amounts for each category of NERC's reserves. The table on page 12 shows the change in the 2020 budget from the 2019 budget for each NERC statutory program area. The table on page 13 shows budgeted 2020 staffing and the change from the 2019 budget for each statutory program and the Administrative programs. The Introduction and Executive Summary then presents NERC's overall Statement of Activities and Fixed Asset Expenditures (page 15), showing information from the 2019 budget, the 2019 projection (NERC's projection of 2019 year-end results), and the 2020 budget, and the variances between the 2019 projection and 2019 budget and between the 2020 budget and 2019 budget, for the major line item categories for Funding, Expenses and Fixed Assets Additions. Finally, the Introduction and Executive Summary presents NERC's budget and assessment projections for 2021 and 2022 (pages 17-18).

Section A of **Attachment 2** is NERC's detailed 2020 Business Plan and Budget. It

addresses the requirements of 18 C.F.R. §39.4(b), the Commission's Order certifying NERC as the ERO,<sup>5</sup> and applicable directives in subsequent Commission orders. Section A provides program background and scope, descriptions of key efforts under way in the current year, the 2020 goals and deliverables, and explanations of increases or decreases in budgeted Personnel Expenses and Consultants & Contracts expense (and, where applicable, significant increases in other budget categories) for 2020 over the 2019 budget, for each statutory program and the Administrative Services functions. A table is provided at the start of the subsection on each statutory program or department, showing total FTEs, total direct expenses, total indirect expenses, other non-operating expenses, increase or decrease in Fixed Assets, and total budget for the statutory program or department for the 2020 budget, with the comparable data from the 2019 budget and the increase or decrease from the 2019 budget. For Administrative Services, this table shows, for each Administrative Services function and in total, the 2019 budget amount, 2020 budget amount, and change from the 2019 budget to the 2020 budget, as well as budgeted 2019 FTEs, budgeted 2020 FTEs, and change in FTEs from the 2019 budget to the 2020 budget. A detailed Statement of Activities and Fixed Asset Expenditures is provided for each statutory program or department, and for the Administrative Services functions in the aggregate. The Statements of Activities show funding and expenditure information from the 2019 budget, the 2019 projection and the 2020 budget, and the variances from the 2019 budget to the 2019 projection and from the 2019 budget to the 2020 budget.

In the Statements of Activities for each program or department, Funding is shown from NERC Assessments and, if applicable to the particular program, from other anticipated sources, including fees from Services & Software, Interest & Investment income, Third-Party Funding,

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

System Operator Certification Testing Fees, and Miscellaneous Funding.<sup>6</sup> Expenses are shown by the major categories (and sub-categories) of Personnel Expenses (Salaries, Payroll Taxes, Benefits, Retirement Costs); Meeting Expenses (Meetings, Travel, Conference Calls); Operating Expenses (Consultants & Contracts, Office Rent, Office Costs, Professional Services, Miscellaneous); and Other Non-Operating Expenses. In the Statements of Activities for the statutory programs, the Indirect Expenses allocated from the Administrative Services departments are also shown. The Statements of Activities show Fixed Assets Additions, Financing Activity (Borrowings less Principal Payments) and, finally, the Total Budget (Total Expenses plus Fixed Asset Additions) for each program.<sup>7</sup>

Section B of **Attachment 2** provides Supplemental Financial Information comprised of tables detailing the components of Funding and Expense categories and explanations of significant changes from the 2019 budget, including analysis of the Reserves balances, targets, and increase or decrease to assessments to meet Reserves targets (Table B-1), Penalties collected (Table B-2), Outside Funding (Table B-3), Personnel Expenses (Table B-4), Meetings Expenses (Table B-5), Rent (Table B-7), Office Costs (Table B-8), Professional Services (Table B-9), Miscellaneous Expenses (Table B-10), Other Non-Operating Expenses (Table B-11), and Fixed Assets Additions (Table B-12).<sup>8</sup>

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<sup>6</sup> Beginning in 2020, NERC is not showing budgeted revenues from Workshops and similar programs as a Funding source, but rather is applying these budgeted revenues to reduce the costs of these programs (*i.e.*, as an offset to Meetings expenses). The intent of this change is to present a total budget amount that is close to the amount of funding required from assessments.

<sup>7</sup> Beginning with the 2020 business plans and budgets, NERC and the Regional Entities have eliminated the offsetting line items for Depreciation in Operating Expenses and Fixed Asset Activity in their Statements of Activities presentations.

<sup>8</sup> 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 2021-2022 Budget Projections, but NERC has provided its 2021-2022 budget projections in the Introduction and Executive Summary.

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

Section D, Consolidated Statement of Activities by Program, of **Attachment 2**, shows 2020 budgeted line-item Funding sources, Expenses, and Fixed Asset 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 2020 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.<sup>9</sup>

Exhibit B – Contractor and Consulting Costs, contains a detailed list of NERC's budgeted 2020 Consultants & Contracts expenses, by program area and by major activity or project, and shows the 2019 budget amounts for Consultants & Contracts expense and the change in the 2020 budget from the 2019 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 the proposed 2020 capital expenditure budget by major category, the 2019 budgeted capital expenditures, and the change from the 2019 to the 2020 capital budget. Exhibit C also shows projected 2019, budgeted 2020, and projected 2021 and 2022 year-end outstanding debt balances and annual payments for debt service, broken out by principal repayments and interest expense.

Exhibit D –Reserve Amounts, provides budgeted 2020 amounts for each category of Reserves pursuant to NERC's Working Capital and Operating Reserve Policy (WCOR Policy).<sup>10</sup> (See §IV.B below for further discussion.)

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<sup>9</sup> The Commission approved the FPA §215 criteria (with modifications to the criteria originally proposed by NERC) in *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013).

<sup>10</sup> The current WCOR Policy was filed with the Commission on March 6, 2015, in Docket No. RR15-8-000, and conditionally approved in *North American Electric Reliability Corporation, Order Conditionally Accepting Revisions to Working Capital and Operating Reserve Policy*, 151 FERC ¶ 61,225 (2015). NERC submitted the compliance filing required by that order in Docket No. RR15-8-001 (*Compliance Filing of the North American Electric Reliability Corporation in Response to Paragraph 18 of June 18,*

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 and designee and the allocation of the NERC, Regional Entity and WIRAB statutory assessments, by allocation method, to each LSE and designee for 2020. Development of the assessments presented in Appendix 2 is discussed in §III.D below.

The information in NERC's 2020 Business Plan and Budget demonstrates that the programs included in the 2020 Business Plan and Budget are necessary and appropriate to carry out NERC's responsibilities as the ERO and that the specific resource requirements budgeted 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 discussion in the 2020 Business Plan and Budget demonstrates how the activities and expenditures included in the Business Plan and Budget lend themselves to accomplishment of NERC's statutory responsibilities and objectives as the ERO. (*Id.* (budget principle (2).)

## **2. Summary of NERC's 2020 Budget and Funding Requirement**

NERC is proposing an overall 2020 budget of \$83,417,476, an increase of 4.5% over the 2019 Budget. This comparison includes the 2019 and 2020 budgeted expenditures for CRISP (which is included in the budget for the E-ISAC). The proposed 2020 budget for the E-ISAC (CRISP plus non-CRISP costs) is \$31,284,791, which constitutes 37.5% of the total 2020 NERC budget. NERC's 2020 budget excluding E-ISAC of \$52,132,685 is 0.8% lower than its 2019 budget excluding E-ISAC.

NERC's proposed 2020 total Funding requirement is \$82,006,951, encompassing U.S., Canadian and Mexican activities, and is an increase of 3.9% over the 2019 total Funding requirement. The 2020 total Funding requirement reflects a decrease to assessments for funding of Reserves of \$650,083, as well as (due to NERC's capital financing plan) proceeds from

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*2015 Order Concerning Amendments to NERC's Working Capital and Operating Reserve Policy*), and it was accepted by the Commission by letter order of September 18, 2015.



financing activities of \$1,338,000 and debt service of \$577,557 (*see* Table B-1 and Exhibit C in **Attachment 2**).

NERC's budgeted non-assessment sources of Funding for 2020 total \$9,995,577, comprised of the following sources and amounts:<sup>11</sup>

- \$7,814,577 of Third-Party Funding for CRISP (a increase of \$328,224 from the CRISP Third-Party Funding provided in the 2019 budget);
- \$1,235,000 of fees charged to participants in the NERC System Operator Certification Program and Continuing Education Program for Testing Fees and Certificate Renewals (an increase of \$45,000 from the 2019 budget), plus \$500,000 of Continuing Education Fees (a decrease of \$100,000 from the 2019 budget) charged to continuing education providers to review their courses;
- \$60,000 of revenues from Services & Software (\$20,000 more than the amount budgeted in the 2019 budget); and
- \$386,000 in Interest & Investment Income (a \$201,000 increase over the amount in the 2019 budget).

Application of the non-assessment funding sources totaling \$9,995,577 to the total statutory Funding requirement of \$82,006,951 results in a net Funding requirement of \$72,011,373 to be funded by assessments, which is 4.5%, higher than the 2019 assessments.

As shown on page 13 of **Attachment 2**, the 2020 budget includes an overall increase of 8.46 FTEs in staffing from the 2019 budget, which reflects (i) an increase of 6.58 FTEs in the E-ISAC and (ii) an increase of 1.88 FTEs in the other statutory programs and administrative departments combined. Increases or decreases in budgeted FTEs for individual programs reflect reallocation of staffing from some program areas to others to match staffing with current workloads and resource requirements. The budgeted FTEs for each program area reflect an assumed average 6.0% vacancy rate, *i.e.*, an adjustment for factors such as personnel attrition,

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<sup>11</sup> NERC did not collect any Penalties in the 12 months ended June 30, 2019, and does not propose to release any funds from the Assessment Stabilization Reserve as a 2020 funding source.

delays in hiring or start date delays.<sup>12</sup> Total budgeted staffing for the statutory programs is increased by 1.88 FTEs, and budgeted staffing for the administrative programs is increased by 6.58 FTEs, from the 2019 budget.

As compared to the 2019 budget, the 2020 budget reflects increases of 6.0% in Personnel Expenses, 4.3% in Meeting Expenses, and 2.9% in Operating Expenses. Budgeted 2020 Consultants & Contracts expense (included in Operating Expenses), are reduced by \$2,607,416 from the 2019 budget, while budgeted Office Costs are \$3,545,456 higher; these changes are largely due to a reclassification of certain Software License and Support costs from Consultants & Contracts to Office Costs. NERC is budgeting Fixed Asset Additions of \$4,706,349 for 2020 (comprised of \$3,271,349 for Computer & Software CapEx (ERO Application Development and NERC capitalized software), \$935,000 for Hardware (storage and servers) and Other Equipment CapEx, and \$500,000 for Leasehold Improvements in the Atlanta office), a decrease of \$71,651 from the 2019 budget.

Budgeted CRISP expenditures for 2020 are decreased by 2.7% from the 2019 budget. The budgeted CRISP expenditures, totaling \$8,796,155, will be primarily funded (\$7,814,577 (88.8%)) by participating utilities. The remaining funding for CRISP will come from assessments and an allocation of NERC's Interest & Investment Income.

The following table shows NERC's 2019 and 2020 budgets for each of its statutory programs and, where applicable, departments within each program:

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<sup>12</sup> Thus, for example, a budgeted increase of 0.94 FTE represents an increase of one full-time position adjusted by the 6% vacancy rate.

<b><u>Program</u></b>	<b><u>2019 Budget</u></b>	<b><u>2020 Budget</u></b>
Reliability Standards and Power Risk Issues Strategic Management	\$ 6,676,078	\$ 8,249,572
Compliance Assurance and Organization Registration and Certification	\$13,944,416	\$12,292,101
Compliance Enforcement	\$ 6,857,235	\$ 6,725,572
Reliability Assessments and Performance Analysis	\$13,232,197	\$13,122,303
Situation Awareness	\$ 4,296,209	\$ 4,256,006
Event Analysis	\$ 5,299,268	\$ 4,733,857
E-ISAC (including CRISP)	\$27,325,627	\$31,284,791
Personnel Certification and Continuing Education	\$ 1,043,763	\$ 1,738,288
Training and Education	<u>\$ 1,179,862</u>	<u>\$ 1,014,986</u>
	<u>\$79,854,655</u>	<u>\$83,417,476</u>

The 2020 budgeted amounts for statutory programs incorporate a budget for Administrative Services of \$32,766,236 (8.0% increase from the 2019 budget). Budgeted Administrative Services expenses and Fixed Assets Activity are allocated to statutory programs based on the ratio of FTEs budgeted for each statutory program to total FTEs budgeted for statutory programs.

### **C. Regional Entity Proposed 2020 Business Plans and Budgets - Overview**

Section 39.4(b) of the Commission’s regulations 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 for 2020 is provided in the individual Regional Entity 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.”<sup>13</sup> NERC staff worked collaboratively with the Regional Entities in developing their 2020 business plan and budget submissions. Drafts and final proposed versions of the Regional Entities’ proposed business plans and budgets were also reviewed by the NERC FAC.

The table below shows the 2020 budgets for statutory and (if applicable) non-statutory functions for each Regional Entity. For all Regional Entities, the total budget amount for statutory functions includes total Expenses and Fixed Asset Additions. Because each Regional Entity has one or more other sources of income (including Penalties collected from registered entities), the requested assessment for each Regional Entity is less than its total budget for statutory activities. The fourth column of the table below shows the total (for all jurisdictions) assessment required for each Regional Entity, after taking into account other Funding sources. The assessment amounts reflect adjustments (which for some Regional Entities are reductions) to achieve the Regional Entity’s target Working Capital Reserve at December 31, 2020, as determined by each Regional Entity’s governing body.

<b>Regional Entity</b>	<b>Total Budget for Statutory Functions</b>	<b>Budget for Non-Statutory Functions</b>	<b>Statutory Funding Assessment</b>
<b>MRO</b>	\$17,540,969	-----	\$16,983,251 <sup>14</sup>
<b>NPCC</b>	\$16,601,647	\$ 1,148,668	\$15,338,737 <sup>15</sup>
<b>ReliabilityFirst</b>	\$23,650,862	-----	\$22,318,623
<b>SERC</b>	\$24,525,013	-----	\$22,459,123
<b>Texas RE</b>	\$13,831,126	\$ 1,191,965	\$13,344,128
<b>WECC</b>	\$27,756,089	\$ 1,831,535	\$25,282,000 <sup>16</sup>

<sup>13</sup>*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.

<sup>14</sup> MRO’s statutory assessment of \$16,983,251 consists of \$15,302,710 allocated to the U.S. and \$1,680,541 allocated to Canadian provinces.

<sup>15</sup> NPCC’s statutory assessment of \$15,338,737 consists of \$9,575,689 allocated to the U.S. and \$5,763,048 allocated to Canadian provinces.

**D. Allocation of Statutory Assessments**

The total ERO statutory funding requirement for 2020 net of other NERC and Regional Entity income sources, to be funded by assessments is \$188,723,535, consisting of \$72,011,373 for funding of NERC’s programs and \$116,712,162 for funding of Regional Entity statutory activities and the WIRAB. This is a 3.1% increase from the aggregate assessments for 2019.

NERC’s proposed 2020 assessment amount of \$72,011,373 is allocated as follows: \$65,130,829 to the U.S., \$6,655,929 to Canadian provinces (in the aggregate), and \$224,615 to Mexico. Based on the aggregate NEL of the United States for 2018 on which the allocation of assessments is based, the proposed U.S. assessment for NERC represents approximately \$0.000016 per end-user kilowatt-hour.<sup>17</sup>

NERC proposes allocation of its 2020 assessment of \$72,011,373 to the Regional footprints as follows:

- |                    |                            |            |                            |
|--------------------|----------------------------|------------|----------------------------|
| • MRO              | \$ 7,890,975 <sup>18</sup> | • SERC     | \$21,074,975               |
| • NPCC             | \$ 8,717,470 <sup>19</sup> | • Texas RE | \$ 6,054,901               |
| • ReliabilityFirst | \$14,670,823               | • WECC     | \$13,602,228 <sup>20</sup> |

Appendix 2 to **Attachment 2** shows the following information for each LSE or designee within the footprint of each Regional Entity and identified by country: (i) 2018 NEL data and the

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<sup>16</sup> WECC’s statutory assessment of \$25,282,000 consists of \$21,700,691 allocated to the U.S., \$3,109,486 allocated to Canadian provinces and \$471,823 allocated to Mexico. The \$25,282,000 amount does not include the WIRAB assessment.

<sup>17</sup> As in prior years, the allocation and calculation of assessments for the 2020 budgets is based on NEL data for the second preceding calendar year, 2018, the most current annual NEL data available as of August 2019.

<sup>18</sup> The allocation to MRO consists of \$7,134,967 allocated to the U.S. and \$756,008 allocated to Canadian provinces.

<sup>19</sup> The allocation to NPCC consists of \$4,557,588 allocated to the U.S. and \$4,159,882 allocated to Canadian provinces.

<sup>20</sup> The allocation to WECC consists of \$11,637,574 allocated to the U.S., \$1,740,039 allocated to Canadian provinces and \$224,615 allocated to Mexico.

the development of the NEL-based allocation factors used to allocate the NERC and Regional Entity statutory assessments (Appendix 2-A), and (ii) the 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 of \$72,011,373 to the LSEs within each Regional footprint primarily on the basis of NEL, with the following adjustment: 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 CMEP, Event Analysis and Situation Awareness (specifically, the SAFNR system) 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 activities related to the Event Analysis program and SAFNR either overlap with Canadian regulatory programs or are not used by these Canadian provinces, and therefore these provinces are not allocated a share of these costs. These credits, totaling \$1,341,279, are reflected in Appendix 2-C of **Attachment 2**. The total credit amount is reallocated to all other LSEs (Balancing Authorities) 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, for NPCC, 20.54% of its Compliance Monitoring and Enforcement and Organization Registration and Certification (CORC) Program costs, representing CORC program fundamentals, has been allocated among the six Balancing Authority Areas (BAAs) in NPCC on

the basis of NEL; 60.87% of CORC costs has been allocated between the U.S. and Canadian BAAs in NPCC using a compliance audit-based methodology; and the remaining 18.59% of CORC costs has been allocated between the U.S. and Canadian BAAs using an enforcement activity-based methodology. As the Commission previously directed,<sup>21</sup> the NPCC CORC costs allocated to the U.S. using the compliance audit-based methodology and the enforcement activity-based methodology are re-allocated between the New England and New York BAAs based on NEL.<sup>22</sup> Second, WECC's allocation of its assessment to the AESO for the Province of Alberta has been reduced by \$1,074,088, representing WECC CMEP costs that are duplicative of programs of the AESO.<sup>23</sup> The AESO credit amount was allocated to the remainder of the LSEs (Balancing Authorities) in the WECC Region on the basis of NEL.

After allocating the appropriate portions of the NERC, Regional Entity and WIRAB funding requirements to Canadian provinces and Mexico (taking into account the adjustments to the NERC, NPCC and WECC allocations to Canadian provinces described above), the total ERO statutory assessment for 2020 allocable to U.S. LSEs for which Commission approval is sought is \$170,657,889 (a 2.8% increase from 2019), comprised of:

NERC Assessment:	\$ 65,130,829
Regional Entity Assessments:	\$105,527,060 (includes the WIRAB assessment)

The funding requirement of each Regional Entity for statutory activities is allocated 100% to that Region. The funding requirement for the WIRAB is allocated 100% to the WECC Region. The following table shows the allocation to each Region of the total 2020 ERO

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

<sup>22</sup> The allocation of NPCC CORC Program costs is described in greater detail at pages 54-56 of the NPCC 2020 Business Plan and Budget, **Attachment 4**.

<sup>23</sup> Appendix C of WECC's 2020 Business Plan and Budget, **Attachment 8** to this filing, shows the calculation of the adjustment to the WECC assessment to the AESO.

statutory assessment of \$170,657,889 for the U.S. statutory activities of NERC, the Regional Entities, and WIRAB. The table also shows the statutory assessments per kWh based on the 2018 U.S. NEL of each Region.

<b>Regional Entity</b>	<b>NERC U.S. Assessment</b>	<b>Regional Entity U.S. Assessment</b>	<b>Total U.S. Assessment</b>	<b>Assessment per kWh (2018 NEL)</b>
<b>MRO</b>	\$ 7,134,967	\$ 15,302,710	\$ 22,437,669	\$0.0000504
<b>NPCC</b>	\$ 4,557,588	\$ 9,575,689	\$ 14,133,277	\$0.0000497
<b>ReliabilityFirst</b>	\$ 14,670,823	\$ 22,318,623	\$ 36,989,446	\$0.0000404
<b>SERC</b>	\$ 21,074,975	\$ 22,459,123	\$ 43,534,098	\$0.0000331
<b>Texas RE</b>	\$ 6,054,901	\$ 13,344,128	\$ 19,399,029	\$0.0000513
<b>WECC</b>	\$ 11,637,574	\$ 21,700,691	\$ 33,338,265	\$0.0000459
<b>WIRAB</b>	---	\$ 826,096	\$ 826,096	\$0.0000012
<b>Total</b>	\$ 65,130,829	\$ 105,527,060	\$ 170,657,889	\$0.0000420

NERC obtained from each Regional Entity a listing of the LSEs or their designees in the Region and a breakdown of the Region’s 2018 NEL by LSE or designee.<sup>24</sup> NERC used this information to allocate the total ERO statutory assessment allocated to each Region among the LSEs, their designees or the other entities to be billed the assessments within that Region.<sup>25</sup> The amount of the NERC and Regional Entity statutory 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**. NERC requests that the Commission approve the statutory assessment amounts for NERC and the Regional Entities allocated to each LSE or designee, as shown in Appendix 2-B of

<sup>24</sup> 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). The assessments for the NPCC Region will be billed to ISO New England and the New York ISO (and to similar entities in Ontario, Québec, New Brunswick and Nova Scotia), each of which will be responsible for billing and collecting assessments from LSEs within 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 Texas RE Region; the assessments will be billed to ERCOT, which will bill and collect assessments from LSEs in ERCOT.

<sup>25</sup> Certain LSEs in MRO and WECC serve end users only in Canada or Mexico. These LSEs were not allocated any portion of the ERO funding requirement allocated to U.S. end users, but were allocated appropriate portions of the ERO funding requirement allocated to Canadian provinces or Mexico.



**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).<sup>26</sup>

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.<sup>27</sup>

#### **IV. NERC BUSINESS PLAN AND BUDGET**

##### **A. 2020 NERC Business Plan and Budget by Program**

The proposed 2020 staffing and expenditure budgets for the individual NERC departments and programs are described in the subsections below. However, several factors impact the budgets for all programs and departments.

First, in developing budgeted staffing and Personnel Expenses for 2020, all NERC programs applied a 6% vacancy rate reduction to FTEs. The vacancy rate adjustment reflects that actual staffing is typically less than budgeted staffing due to factors such as employees leaving NERC for other jobs and new positions being filled at a later date than assumed in preparing the budget. The vacancy rate adjustment is reviewed each year, based on historical attrition and the time needed to recruit and onboard new staff, and is adjusted if appropriate;

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<sup>26</sup> 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.

<sup>27</sup> As approved by the Commission in the *ERO Certification Order* at P 218, for reasons of administrative convenience, billing and payment by LSEs of annual assessments less than \$100 will not be required.

however, the 6% adjustment is the same value used in the 2017, 2018, and 2019 NERC budgets.

Second, the Personnel Expense in the 2020 budget reflects (in addition to the FTE additions) a 3.0% increase over actual 2019 base salaries for merit adjustments, and, at the direction of the NERC Board, up to 0.5% for equity and market adjustments.

Third, budgeted Benefits Expense for all programs reflects anticipated market increases in medical and dental plan premiums from the 2019 budget, based on market data provided by NERC's benefits consultants. Executive and staff compensation and benefits are based on guidelines established by the NERC Corporate Governance and Human Resources Committee (CGHRC) and market compensation and benefits studies most recently completed in late 2017.

Fourth, budgeted staffing is increased for some of the statutory programs and decreased for other statutory programs, compared to the 2019 budget, reflecting a company-wide reorganization and realignment of personnel to match staffing with current program needs. The budgeted expenses (Indirect Expenses) and Fixed Assets Activity for the Administrative Services programs are allocated to the statutory direct programs based on the ratio of budgeted FTEs in each statutory program to total budgeted statutory program FTEs. Therefore, the changes in the numbers of FTEs budgeted for each statutory direct program for 2020 as compared to 2019 impact the allocation of the Administrative Services costs among the statutory direct programs.

#### **1. Reliability Standards and Power Risk Issues Strategic Management**

The major activities of the Reliability Standards and Power Risk Issues Strategic Management Program are described at pages 19-21 of **Attachment 2**. The total budget for this program for 2020 increased 23.6% from the 2019 budget, due primarily to an increase in staffing of 3.29 FTEs resulting from the company-wide reorganization and realignment of staffing among programs and departments to match current needs. The budget includes Consultants & Contracts expense of \$40,320 (a decrease of \$9,680 from the 2019 budget) for maintenance of and

enhancements to the Standards Balloting and Commenting System.

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

**a. Compliance Assurance and Organization Registration and Certification**

The major activities of Compliance Assurance and Organization Registration and Certification are described at pages 23-27 of **Attachment 2**. The total budget for Compliance Assurance and Organization Registration and Certification for 2020 decreased 11.8% from the 2019 budget, due primarily to decreases in Personnel Expenses and Meeting Expenses. The budgeted staffing for 2020 is 21.62 FTEs, a decrease of 4.23 FTEs from the 2019 budget, reflecting the continued maturation of NERC's risk-based CMEP and ongoing efforts to match staffing with current needs. The decreased staffing is all in the Compliance Assurance function, with no staffing changes in Registration and Certification. The 2020 budget includes approximately \$0.9 million in Fixed Asset Additions for the final year of development of the Align tool, with these costs shared with the Compliance Enforcement group (*i.e.*, total budget of \$1.8 million), plus \$200,000 for enhancements to the Centralized Organization Registration ERO System (CORES).

**b. Compliance Enforcement**

The major activities of the Compliance Enforcement group are described at pages 29-30 of **Attachment 2**. The total budget for the Compliance Enforcement group for 2020 decreased 1.9% from the 2019 budget, due primarily to reduced Personnel Expenses. Budgeted staffing for Compliance Enforcement is 12.22 FTEs, a decrease of 0.94 FTE from the 2019 Budget, reflecting the overall effort to realign staffing among the departments to match current needs. The 2020 budget for Compliance Enforcement includes \$0.9 million of Fixed Asset additions for the last year of development of the Align tool; as noted above, the budgeted costs for the Align

tool are split between Compliance Assurance and Compliance Enforcement.

### **3. Reliability Assessments and Performance Analysis (RAPA)**

The major activities of the RAPA Program are described at pages 32-37 of **Attachment 2**. The total budget for RAPA for 2020 decreased 0.8% from the 2019 budget. The budgeted staffing for RAPA is reduced by 1.88 FTEs from the 2019 budget, to 23.50 FTEs, reflecting the reorganization and reallocation of staff among programs to meet current resource needs. Budgeted Consultants & Contracts expense for 2020 is reduced by \$525,995 from the 2019 budget, due primarily to reclassification of maintenance and enhancement costs for certain tools to Office Costs (which are increased by \$219,304 from the 2019 budget).

### **4. Situation Awareness**

The major activities of the Situation Awareness Department are described at pages 39-41 of **Attachment 2**. The total budget for Situation Awareness decreased 0.9% from the 2019 budget. The budgeted staffing for Situation Awareness for 2020 is the same as in the 2017, 2018 and 2019 budgets, at 5.64 FTEs. Budgeted Consultants & Contracts expense for 2020 is reduced by \$1,280,990 from the 2019 budget, due primarily to reclassification of licenses and maintenance costs for certain tools to Office Costs (which increased by \$1,132,244 from the 2019 budget). The budgeted Fixed Asset additions for 2020 include \$250,000 for upgrades to the situational awareness room in the Atlanta office.

### **5. Event Analysis**

The major activities of the Event Analysis Department are described at pages 43-44 of **Attachment 2**. The total budget for the Event Analysis Department decreased 10.7% from the 2019 budget, due primarily to reduced Personnel Expenses. The budgeted staffing for Event Analysis for 2020 is reduced by 1.88 FTE from the 2019 budget, to 9.40 FTEs.

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

The major activities of the E-ISAC are described at pages 46-51 of **Attachment 2**. In addition to operating the E-ISAC, this program performs the management role for CRISP, a public-private partnership whose purpose is to facilitate the sharing of cybersecurity risk with and among E-ISAC member electricity asset owners and operators in the U.S., Canada and Mexico, identify potential threats, and provide recommended mitigation steps.

The total budget for the E-ISAC is increased by 14.5% over the 2019 budget. This includes the budget for CRISP, which comprises 28.0% of the total E-ISAC budget. The budgeted staffing for the E-ISAC for 2020 is increased by 6.58 FTEs from the 2019 budget to increase watch operations, analytical, and engagement capabilities in support of the E-ISAC long-term strategy. The budgeted 2020 Consultants & Contracts expense for E-ISAC of \$8,090,000 is slightly reduced from the 2019 budget. Of this total, \$6,677,500 (82.5%) is budgeted for CRISP, which is an increase of 3.4% from the 2019 budget, largely driven by an increase in scope and funding for the outside auditor security review. NERC anticipates continuing to subcontract to Pacific Northwest National Laboratory for the majority of the resource requirements and associated costs to operate and maintain CRISP. In the non-CRISP portion of E-ISAC's Consultants & Contracts expenses, totaling \$1,412,500, there are decreases reflecting that the biennial GridEx cybersecurity exercise was held in 2019 and therefore will not be held in 2020, as well as decreases in other areas of Consulting & Contracts support. There is a \$559,493 increase in budgeted Office Costs primarily due to additional software licensing and support costs for tools and technology in support of the E-ISAC long-term strategy. Budgeted 2020 Fixed Asset Additions include \$350,000 for E-ISAC portal enhancements.

Under the CRISP master services agreement, the E-ISAC budget for 2020 is supported by

\$7,814,577 of Third-Party Funding provided by participating utilities and other entities to support NERC's participation and activities as program manager for CRISP. The Third-Party Funding is equal to 88.8% of the 2020 CRISP budget. Third-Party Funding for CRISP is deposited in a separate account. Any underrun in the CRISP budget which is allocated to and funded by CRISP participants will be applied as a credit against future CRISP participant funding requirements, pursuant to the terms of the CRISP agreements.

#### **6. Personnel Certification and Continuing Education**

NERC has placed the System Operator Certification Program and the Continuing Education Program into the same department, so that all system operator certification and related continuing education activities are now in a single program, overseen by the NERC Personnel Certification and Governance Committee. The Continuing Education Program for system operators was formerly part of the Training and Education department. The major activities of the Personnel Certification and Continuing Education (PCCE) Program are described at pages 53-54 of **Attachment 2**. The total 2020 budget for the PCCE is 66.5% higher than the 2019 budget, reflecting the movement of functions into this department. Budgeted 2020 staffing for the PCCE is 2.82 FTEs.

The PCCE Program will receive no funding from assessments. The System Operator Certification Program generates revenues from fees charged for system operator certification examinations, which are intended to recover the costs (including an allocation of indirect expenses) of the program, and for certification renewals. In addition, fees charged to continuing education providers offset costs associated with the review of courses taken by certified operators to maintain their certification.

#### **7. Training and Education**

The major activities of the Training and Education Program are described at pages 56-57

of **Attachment 2**. The 2020 total budget for Training and Education decreases 14.0% from the 2019 budget, reflecting the movement of system operator continuing education program activities to the PCCE Program. Budgeted 2020 staffing of 1.88 FTEs for Training and Education is unchanged from the 2019 budget. Budgeted 2020 Consultants & Contracts expense is reduced by \$225,000 from the 2019 budget, due to the movement of Continuing Education program expenses to the PCCE Program and reclassification of NERC staff technical training costs to HR & Administration.

## **8. Administrative Services**

The Administrative Services departments support the NERC statutory programs. Administrative Services comprises the following functions: (i) General & Administrative (which includes the chief executive officer and chief reliability officer, Policy and External Affairs staff, Office Rent, and Board functions); (ii) Legal and Regulatory; (iii) Information Technology (IT); (iv) HR & Administration; and (v) Finance and Accounting. Descriptions of the responsibilities and functions included in Administrative Services are provided at pages 59-65 of **Attachment 2**.

The total amount budgeted for expenses in Administrative Services for 2020 (before provision for Working Capital and Operating Reserves) is increased 8.0% from the 2019 budget, due principally to increased Personnel Expense, Office Rent, and Office Costs. The total budgeted staffing for the Administrative Services departments for 2020 is increased by 6.58 FTEs from the 2019 budget, including increases of 2.82 FTEs in General & Administrative, 1.88 FTEs in Legal and Regulatory, 0.94 FTE in IT, and 0.94 FTE in Finance and Accounting. The increase in Office Costs reflects both increases in Software License and Support costs and a reclassification of these expenses from Consultants and Contracts (which in turn are reduced by \$387,071 from the 2019 budget). The reduction in Consultants and Contracts Expense also

includes the conversion of an IT contractor to a NERC employee. Budgeted Professional Services expense for Administrative Services decreased by \$171,000 from the 2019 budget, primarily due to a decrease in Board expenses (as described below) and a reclassification of some other Outside Services expenses to other categories.

The budgeted amount for Independent Trustee expenses for 2020 (included in General & Administrative) decreased slightly from the 2019 budget, reflecting a reduction in budgeted Trustee Search Fees partially offset by an increase in budgeted Trustee Travel expense. Budgeted Independent Trustee Fees reflect continued implementation of the previous (2018) recommendation by the CGHRC, approved by the Board, to increase annual trustee compensation by \$5,000 per trustee each year for the years 2019 through 2021 (*i.e.*, total increase of \$15,000 as of 2021). However, because there will be one less independent trustee on the Board in 2020 than in 2019, the total budgeted amount for Independent Trustee Fees has not been increased from the 2019 budget.<sup>28</sup> The decision to increase annual trustee compensation by \$5,000 per year in each of 2019, 2020 and 2021 resulted from NERC's 2018 annual review of trustee compensation and the periodic independent consultant study of trustee compensation completed in 2018, which recommended this increase.<sup>29</sup> The consultant's study and the CGHRC's analysis and recommendation to the Board took into account trends in trustee/director compensation; comparative market data; the NERC trustee workload (including those of the Chair, Vice Chair, and committee chairs); overall budget impact; and the need to continue to recruit qualified trustees, taking into account the constraints on NERC trustee candidates (such as conflict of interest requirements) that limit the pool of candidates. In accordance with Paragraph

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<sup>28</sup> The table on page 61 of **Attachment 2** shows budgeted Board of Trustees expenses for 2020 and 2019.

<sup>29</sup> A copy of the independent consultant compensation study, performed by the Willis Towers Watson consulting firm (*Board of Trustee Remuneration Review*, July 2018) was included as an Attachment to NERC's 2019 Business Plan and Budget filing (Docket No. RR18-9-000).



12(a) of the Settlement Agreement for the Commission's 2011 financial performance audit of NERC, which requires the NERC Board to review trustee compensation on an annual basis, the CGHRC, at meetings in June and July 2018, reviewed and discussed the independent consultant's study of trustee compensation, and at its August 15, 2018 meeting, recommended that the Board approve the proposed increase in annual trustee compensation, which the Board in turn approved at its August 16, 2018 meeting.<sup>30</sup> At its May 8, 2019, meeting, the CGHRC determined to continue implementation of this recommendation as part of its annual review of trustee compensation.

## **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, System Operator Certification Program Reserve, CRISP Reserve, and Assessment Stabilization Reserve. Table B-1 and Exhibit D in **Attachment 2** show and explain the amounts of Reserves proposed to be budgeted in each category, and reflected in the setting of NERC's assessments, for 2020. The amounts budgeted for 2020 for each Working Capital and Operating Reserve category (target balances at December 31, 2020) are as follows:

Working Capital:       \$0

NERC maintains a \$4,000,000 line of credit with a major financial institution, and based on its cash flow projections and the timing by which the NERC assessments are billed and paid, does not anticipate a need to access working capital in 2020 to meet monthly cash flow needs.

Future Obligation Reserve: \$1,633,761

The target level for the Future Obligations Reserve at December 31, 2019, as presented in NERC's 2019 Business Plan and Budget, was \$2,039,114; therefore, the target level for this reserve is being reduced by \$405,353 at December 31, 2020. The projected amount in this reserve at December 31, 2019 is \$2,119,719.

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<sup>30</sup> Annual review of trustee compensation is also required by the CGHRC's mandate and by NERC's Governance Guidelines.

Operating Contingency Reserve: \$4,721,776

The WCOR Policy specifies that except as otherwise approved by the NERC Board, the budgeted Operating Contingency Reserve level is to be between 3.5% - 7.0% of NERC's total expenses and Fixed Assets 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, 2019, is \$5,375,812. NERC is proposing to reduce the 2020 assessment by reducing the Operating Contingency Reserve by \$654,036, resulting in a target amount for this Reserve at December 31, 2020 of \$4,721,776.

System Operator Certification Program Reserve: \$441,528

The projected December 31, 2019 reserve balance of the System Operator Certification Program is \$437,575; therefore, a small increase of \$3,953 is included to reach the target balance for the System Operator Certification Program Reserve at December 31, 2020.

CRISP: \$500,000

The CRISP Operating Reserve is used solely for certain contingencies in connection with CRISP. The target level is equal to the original CRISP reserve, established in 2015, which was funded by the participating utilities in CRISP.

Assessment Stabilization Reserve: \$1,521,000

NERC collected no Penalties during the period July 1, 2018 – June 30, 2019. After the application of \$550,000 from the Assessment Stabilization Reserve in 2019 to reduce assessments (as described in the 2019 Business Plan and Budget), the balance in this Reserve is \$1,521,000. NERC is not proposing to release any funds from the Assessment Stabilization Reserve to reduce the 2020 assessments; therefore, the balance of \$1,521,000 in this Reserve will be available for use to offset and stabilize assessments in future years' budgets.

Total Desired Working Capital and Reserves at 12/31/2020: \$8,818,065.

Based on the beginning Working Capital and Reserves balances at January 1, 2019 of \$11,342,801, the projected funding and expenditures for 2019, the budgeted funding and expenditures for 2020, the impacts of the capital financing program for 2020 (*see* §IV.C below) and the desired Working Capital and Reserves balances at December 31, 2020, Table B-1 on page 67 of **Attachment 2** shows the calculation of the resulting adjustment (decrease) of \$650,083 to NERC's 2020 statutory assessment. To the extent NERC's actual year-end 2019 Working Capital and Reserves balances are higher than the projected amounts shown on Table B-1, the excess funds will be included in the Operating Contingency Reserve, 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 Expenditures Financing

As originally described in NERC's 2014 Business Plan and Budget (Docket No. RR13-9-000), NERC is financing certain capital expenditures, in particular development of major software applications that benefit the entire ERO Enterprise, over multi-year periods through a capital financing program. NERC initiated the capital financing program in January 2014, establishing a \$7,500,000 non-revolving credit facility; and closed a similar non-revolving credit facility in November 2016 totaling \$5,000,000, to finance certain capital expenditures made from January 2017 to December 2019. Annual borrowings under the credit facilities are limited to the amounts authorized by the NERC Board and the Commission in each year's Business Plan and Budget. Borrowings are amortized over a three-year period and can be prepaid without penalty.

The outstanding debt balance at December 31, 2019 is projected to be \$1,666,890. For 2020, NERC's proposed capital expenditures budget is \$4,706,349, of which NERC is proposing to finance approximately \$2,007,000. The capital expenditure categories and amounts in the 2020 budget are listed in Table B-12 and Exhibit C of **Attachment 2**. The tables included in Exhibit C show the projected year-end outstanding debt balances and annual payments for debt service for 2019, 2020, 2021 and 2022 under the capital financing program, including the annual principal repayment and annual interest expense. The interest rate under the credit facilities is floating at LIBOR plus 275 basis points; NERC projects the average interest rate during 2020 will be 6.5%. The actual interest expense (based on actual interest rates) 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 the budgeted expense will be captured and reported as a contribution to

NERC's Operating Reserves, the 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 the development of the Regional Entities' 2020 Business Plans and Budgets. Drafts of each Regional Entity's 2020 Business Plan and Budget were submitted to NERC for posting on the NERC website on May 17, 2019 for stakeholder comment. NERC also reviewed and provided feedback on these drafts. The draft Regional Entity 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 2020 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 2020 Business Plan and Budget for comments on May 1, 2019. MRO's 2020 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 2020 Business Plan and Budget. On June 20, 2019, MRO's Board of Directors approved a resolution that approved the 2020 reserves and 2020 budget; and affirmed that the budget is sufficient to complete MRO's delegated responsibilities.

**NPCC**: A preliminary 2020 total NPCC Expense Budget was first presented to NPCC's Finance and Audit Committee (NPCC FAC) for review and discussion on February 21, 2019. Draft #1 of the NPCC 2020 Business Plan and Budget was presented to NPCC's FAC on April 23, 2019, and to its Board of Directors Board of Directors on May 1, 2019. NPCC posted Draft #1 on its website for stakeholder review and comment on May 1, with a request for comments by May 31. Draft #1 was presented to the NPCC Reliability Coordinating Committee for comment following this posting. NPCC did not receive any formal comments from either the posting or various presentations to the stakeholders on its proposed 2020 Business Plan and Budget. The NPCC FAC unanimously endorsed the "Draft for Approval" as presented and on June 26, 2019, the "Draft for Approval" was presented to the NPCC Board, and was unanimously approved.

**ReliabilityFirst**: On April 24, 2019, the ReliabilityFirst Board of Directors approved the first draft of its 2020 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 2020 Business Plan and Budget was approved by the ReliabilityFirst Board on May 23, 2019.

**SERC:** On April 18, 2019, a draft of SERC's 2020 Business Plan and Budget was presented to SERC's Finance and Audit Committee. On April 24, 2019, the draft 2020 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 May 1, 2019. No comments were received from registered entities. The final 2020 Business Plan and Budget was approved for submittal to NERC by the Board Executive Committee at its June 26, 2019 meeting.

**Texas RE:** Texas RE's 2020 Business Plan and Budget was presented in multiple meetings of the Texas RE Board and Member Representatives Committee. The draft 2020 Business Plan and Budget was posted for a two week comment period before being presented to the Texas RE Board of Directors for final approval. There were no written or oral challenges to the 2020 Business Plan and Budget. The Board of Directors approved Texas RE's 2020 Business Plan and Budget on May 15, 2019.

**WECC:** WECC's draft 2020 Business Plan and Budget was posted on its website on April 29, 2019, 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 on the draft 2020 Business Plan and Budget. WECC's Board approved WECC's 2020 Business Plan and Budget on June 19, 2019.

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 the related goals, objectives and priorities;
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 common presentation format,
  - b. Separation of statutory and non-statutory activities,
  - c. Supporting detail, including explanations for significant changes from the entity's 2019 budget,
  - d. Working capital and operating reserve budgets, policies and controls, and
  - e. Compliance with any budget or audit related orders from the Commission, if

applicable.

Through the processes described above and in §III.A, NERC has been able to satisfy itself that each Regional Entity's 2020 Business Plan and Budget provides necessary and adequate resources to carry out the Regional Entity's delegated functions in 2020.<sup>31</sup>

The Regional Entities submitted their final 2020 Business Plans and Budgets, as approved by their respective governing bodies, to NERC in May and June 2019. These Business Plans and Budgets were submitted to the NERC FAC and Board, were reviewed at the FAC's meetings held on July 18 and August 14, 2019, and were approved by the Board for submission to the Commission at the Board's August 15, 2019 meeting.

The Regional Entity Business Plans and Budgets follow a similar format and organization to that used for the NERC Business Plan and Budget, as described in §III.B.1 above.

In developing their 2020 Business Plans and Budgets and proposed assessment amounts to LSEs, the Regional Entities have taken into account the need to maintain appropriate amounts of working capital and operating reserves. Table B-1 in Section B of each Regional Entity's 2020 Business Plan and Budget shows the calculation of the increase or decrease to the Regional Entity's requested 2020 assessment to achieve the Regional Entity's desired Reserves balance at December 31, 2020. The basis for each entity's target Reserves balance for 2020 is stated on its Table B-1 or explained in the text of its 2020 Business Plan and Budget.

## **B. Summaries of Individual Regional Entity Business Plans and Budgets**

### **1. MRO**

**Attachment 3** is MRO's proposed 2020 Business Plan and Budget. MRO's total

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<sup>31</sup> In reviewing the Regional Entity Business Plans and Budgets, and in accordance with the Commission's directive in the *ERO Certification Order*, NERC afforded the proposed Regional Entity Business Plans and Budgets no presumption of reasonableness due to having been approved by the Regional Entities' governing bodies. *See ERO Certification Order* at P 203.

statutory budget for 2020 is \$17,540,969, an increase of \$1,560,615 (9.8%) from its 2019 budget, and reflects the costs resulting from transfer of registered entities from the Southwest Power Pool Regional Entity (SPP RE) to MRO during 2018 as the result of the SPP RE dissolution. MRO's proposed assessment for 2020 of \$16,983,251 is \$1,511,582 (9.8%) higher than its 2019 assessment, reflecting (i) the increased budget; (ii) release of \$557,718 from MRO's Assessment Stabilization Reserve (MRO ASR), as described below, which is an increase of \$498,465 from the amount of Penalty collections applied to reduce assessments in MRO's 2019 budget; and (iii) no additional adjustment to assessments for Working Capital Reserve, as compared to a reduction to its assessments of \$449,432 for Working Capital Reserve in its 2019 budget. MRO calculates that its proposed 2020 budget is \$3,200,000 less than the combined 2018 budgets of MRO and SPP RE prior to the SPP RE dissolution and transfer of registered entities to MRO.

MRO is budgeting increased staffing for 2020 of 1.36 FTEs in its statutory programs and 2.64 FTEs in its administrative programs, for an overall increase of 4.00 FTEs. Total budgeted 2020 staffing of 63 FTEs is 14 FTEs fewer than the aggregate staffing in the 2018 budgets of MRO and SPP RE. The largest budget increase for MRO's statutory programs is \$1,084,136 (10.1%) for the Compliance Enforcement and Organization Registration program. The 2020 budget for Administrative Services is \$5,940,557, an increase of \$927,765 from the 2019 budget.

As indicated above, MRO proposes to establish the MRO ASR (i) into which Penalty collections received in the 12 months ending the previous June 30 would be deposited, and (ii) from which would be released funds to reduce year-to-year fluctuations in the amount of assessments needed to fund operations. MRO proposes to deposit the Penalties collected during the 12 months ended June 30, 2019, totaling \$712,417, into the MRO ASR, and to release \$557,718 from the MRO ASR to reduce the 2020 assessment (leaving a balance of \$154,699 in

the MRO ASR to be used in future periods). 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 MRO's assessments in the following year, in order to allow MRO to implement the proposed ASR transactions. MRO proposes no other adjustments to its 2020 assessments to reach its target operating reserve of \$1,441,723 at December 31, 2020.

MRO plans no non-statutory activities in 2020 and therefore has no 2020 budget for non-statutory activities.

## 2. NPCC

**Attachment 4** is NPCC's proposed 2020 Business Plan and Budget. NPCC's statutory budget for 2020 is \$16,601,647, an increase of \$797,756 (5.0%) from its 2019 budget. The increase is comprised of \$444,540 (2.8%) in one-time succession planning costs and \$353,216 (2.2%) in ongoing operating costs. NPCC's 2020 assessment is \$15,338,737, an increase of \$335,326 (2.2%) from its 2019 budget. The increase in assessments is the net result of (i) the increased budget, (ii) increased Penalty collections from zero in the 2019 budget to \$120,000 in the 2020 budget, (iii) budgeted Interest & Investment Income of \$55,800 compared to zero in the 2019 budget, and (iv) a reduction for reserves of \$1,019,611 versus a reduction of \$732,980 in the 2019 budget (*i.e.*, the adjustment to assessments for reserves reduces the 2020 assessment by \$286,630 more than in the 2019 budget). The \$1,019,611 reduction in assessments for reserves is comprised of (i) proposed release of \$444,540 from the NPCC Business Continuity Reserve, (ii) an increase to assessments of \$66,477 to achieve NPCC's target Working Capital Reserve, and (iii) a reduction to assessments of \$641,548 to achieve NPCC's target Operating Reserve.

NPCC's 2020 budget reflects a staffing increase of 2.23 FTEs from its 2019 budget, comprised of a 1.00 FTE increase in its CMEP (to 18.00 FTEs) and a 1.23 FTE increase in



Administrative programs (General & Administrative (0.23 FTE) and Legal and Regulatory (1.00 FTE)). Budgeted total staffing is 41.09 FTEs, comprised of 30.86 FTEs for statutory programs and 10.23 FTEs for administrative programs. NPCC's budgeted 2020 Administrative Services expenditures are \$6,307,945, an increase of 13.7% from its 2019 budget.<sup>32</sup>

NPCC's target Working Capital and Operating Reserve at December 31, 2020 is \$3,406,501, comprised of \$1,527,626 for Operating Reserve, \$1,383,415 for Working Capital, and \$495,460 for Business Continuity Reserve. As approved by the NPCC Board, the Operating Reserve target is 9.20% of 2020 budgeted expenditures and is within the range of 8.33% to 25.00% of budgeted expenditures;<sup>33</sup> the Working Capital target is 8.33% of budgeted expenditures; and the Business Continuity Reserve is based on succession planning requirements associated with planned or sudden retirements or other suddenly changing workforce staffing requirements.<sup>34</sup> NPCC's Table B-1 shows a projected total Working Capital, Operating and Business Continuity Reserve at December 31, 2019 of \$4,426,112;<sup>35</sup> thus, NPCC's 2020 assessment amount is reduced by a net amount of \$1,019,611 to reach its desired Operating Reserve, Working Capital, and Business Continuity Reserve at December 31, 2020.

For purposes of determining the assessments to recover NPCC's statutory funding requirement, the statutory funding requirement is allocated among the Balancing Authority Areas (BAAs) within NPCC in the U.S. (New York and New England), Ontario, Québec, New

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<sup>32</sup> NPCC budgets Office Rent, Office Costs, Professional Services, and Miscellaneous Operating Expense as Indirect Expenses, rather than budgeting these costs 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.

<sup>33</sup> 8.33% approximates 30 days, and 25% approximates 90 days, of budgeted expenditures.

<sup>34</sup> The Business Continuity Reserve was established in 2017 by the NPCC Board to be drawn upon, with Board approval, for President & CEO succession-related activities associated with retirement and other suddenly changing staffing requirements which could result from coincident multiple staff retirements. The total original Business Continuity Reserve amount was \$1,000,000, allocated between the NPCC Regional Entity Division (\$940,000) and the Criteria Service Division (\$60,000).

<sup>35</sup> Operating Reserve - \$2,169,174; Working Capital - \$1,316,938; Business Continuity - \$940,000.

Brunswick and Nova Scotia. A portion (20.54%) of NPCC's statutory costs for the Compliance and Organization Registration Program (CORC) is allocated between the U.S. and Canadian BAAs on the basis of NEL; a portion (60.87%) of the CORC costs is allocated between the U.S. and the Canadian provinces using a compliance audit-based methodology; and the remaining portion (18.59%) of the CORC costs, representing mitigation and enforcement-related costs, is allocated between the U.S. and Canadian BAAs using an enforcement activity-based methodology.<sup>36</sup> The portion of the costs allocated to the U.S using the audit-based methodology and the enforcement activity-based methodology is then re-allocated between the New York and New England BAAs on the basis of NEL, as required by PP 40-41 of the *July 16, 2009 Budget Compliance Order*. 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 on pages 54-55 and the table on page 56 of NPCC's Business Plan and Budget explain and show the development of the 2020 assessments by BAA within NPCC to recover NPCC's statutory funding requirement. 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 to be charged to U.S. BAAs).

NPCC's total non-statutory (Criteria Services Division) budget for 2020 is \$1,148,668 and its non-statutory Funding Requirement for 2019 is \$1,069,402.

### **3. ReliabilityFirst**

**Attachment 5** is ReliabilityFirst's proposed 2020 Business Plan and Budget. ReliabilityFirst has a total statutory budget for 2020 of \$23,650,862, an increase of \$1,002,404

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<sup>36</sup> These allocation percentages reflect the respective scopes of work to be performed by NPCC and the relevant provincial governmental and/or regulatory authorities in the Compliance area, as negotiated between NPCC and the relevant authorities in each of the provinces and reflected in a Memorandum of Understanding between NPCC and the relevant authorities for each province.

(4.4%) over its 2019 budget. ReliabilityFirst's proposed assessment for 2020 is \$22,318,623, an increase of \$1,062,792 (5.0%) over the 2019 assessment. The increase in the assessment is due to the net effect of (i) the increased budget; (ii) a decrease of \$59,588 in Penalty collections from the 2019 budget; and (iii) a reduction for Working Capital Reserve of \$1,014,613, as compared to a decrease for Working Capital Reserve of \$1,015,412 in the 2019 budget (*i.e.*, a smaller decrease to assessments, by \$799, for Working Capital Reserve as compared to the 2019 budget).

ReliabilityFirst is budgeting an overall increase in staffing for 2020 of 1.15 FTEs, comprised of 1.00 net additional FTE in statutory programs and 0.15 net additional FTE in administrative programs. Total budgeted staffing for 2020 is 79.35 FTEs, including a total of 45.00 FTEs in Reliability Assurance and Compliance Monitoring and Enforcement. ReliabilityFirst's total budgeted 2020 Administrative Services expenditures are \$7,155,690, an increase of 5.0% over the 2019 budget, due primarily to increased Personnel Expense and Fixed Asset Additions, partially offset by decreases in Meetings expense and Office Costs.

ReliabilityFirst's target Working Capital and Operating Reserve balance at December 31, 2020, as approved by its Board, is \$2,528,149, comprised of \$1,528,149 for Working Capital and Working Capital Reserve and \$1,000,000 for Operating Reserve. The Operating Reserve target is unchanged from the 2019 budget. ReliabilityFirst's projected Working Capital, Working Capital Reserve and Operating Reserve balance at December 31, 2019 is \$3,700,836, comprised of \$2,700,836 in Working Capital and Working Capital Reserve, and \$1,000,000 in Operating Reserve. As a result, ReliabilityFirst's requested assessment amount for 2020 reflects a reduction of \$1,172,687 (from the Working Capital Reserve), which, along with 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 (income statement) (*see* footnote 1 on Table B-1), is

projected to enable ReliabilityFirst to attain the target Working Capital, Working Capital Reserve and Operating Reserve balances at December 31, 2020.<sup>37</sup>

ReliabilityFirst plans no non-statutory activities in 2020 and therefore has no 2020 budget for non-statutory activities.

#### 4. SERC

**Attachment 6** is SERC's proposed 2020 Business Plan and Budget. SERC's total statutory budget for 2020 is \$24,525,013, an increase of \$6,380,064 (35.2%) from its 2019 budget. SERC calculates that \$4,974,626 of the budget increase is attributable to the transfer of registered entities from the Florida Reliability Coordinating Council Regional Entity (FRCC RE), which ceased operations as a Regional Entity in 2019. SERC's proposed 2020 assessment of \$22,459,123 is an increase of \$5,086,908 (29.3%) from its 2019 assessment, but it will be spread over a broader NEL base including LSEs that were previously within the FRCC RE footprint. The increased assessment is the net result of (i) the increased budget; (ii) an increase in Penalty collections offsetting assessments of \$1,817,000 from the 2019 budget; (iii) a net increase in Funding from Services & Software, Workshops & Miscellaneous, and Interest of \$63,450 from the 2019 budget, and (iv) an increase in assessments of \$59,110 to achieve SERC's targeted Working Capital Reserve amount as compared to a decrease in assessments of \$528,184 for this purpose in the 2019 budget (*i.e.*, the adjustment for Working Capital Reserve increases SERC's 2020 assessment by \$587,294 more than in its 2019 budget).

SERC's 2020 budget reflects (i) costs associated with responsibility for the SPP RE registered entities transferred to SERC in 2018 due to the SPP RE dissolution, and (ii) costs for the first full year of responsibility for the FRCC RE registered entities transferred to SERC in

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<sup>37</sup> As stated in Table B-1 of ReliabilityFirst's Business Plan and Budget, \$1,172,687 from Working Capital Reserve is being used to minimize the variance in the 2020 assessment from the 2019 assessment.

2019 due to the FRCC RE dissolution. SERC's budgeted total staffing for 2020 for statutory programs and administrative functions is 98.00 FTEs, an increase of 20.0 FTEs from its 2019 budget, reflecting additional staffing required for the CMEP and other responsibilities for the registered entities transferred from FRCC. Budgeted staffing for statutory programs is increased by a net of 19.65 FTE from the 2019 budget, including an increase in staffing for the CMEP of 15.50 FTEs (to a total of 49.50 FTEs). Budgeted staffing for administrative programs is being increased by a net of 0.35 FTEs from the 2019 budget. SERC's budgeted 2020 expenditures for the Administrative Services functions are \$11,004,048, an increase of 1,496,541 from its 2019 budget. The increase in budgeted Administrative Services expenditures is due primarily to increases in Personnel expenses, Meetings and Travel expenses, Consultants and Contracts expense, and Office Costs.

SERC's target Working Capital Reserve at December 31, 2020 is \$1,201,726. SERC's working capital policy, adopted by its Board, provides for a cash reserve of up to 10% of budgeted annual statutory operating costs; any excess income greater than two months of statutory operating costs is treated as a temporary increase in SERC's operating reserves. SERC proposes to (i) use \$829,718 of Penalties collected between July 1, 2018 and June 30, 2019, to fund expenses incurred in 2019 associated with the transfer and integration of registered entities from FRCC RE (rather than using these Penalty collections to reduce the 2020 assessment); and (ii) to use an additional \$1,900,000 of Penalty collections anticipated to be received after June 30, 2019 to reduce the 2020 assessment. 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 projected Working Capital Reserve at December 31, 2019 is \$1,142,614; therefore, after applying \$1,900,000 of Penalty collections as described above, and \$225,001 of other Funding sources, SERC proposes to increase its 2020 assessment by \$59,111 to reach its target Working Capital Reserve at December 31, 2020.

SERC plans no non-statutory activities in 2020 and therefore has no 2020 budget for non-statutory activities.

## **5. Texas RE**

**Attachment 7** is Texas RE's proposed 2020 Business Plan and Budget. Texas RE's 2020 statutory budget is \$13,831,126, an increase of \$761,528 (5.8%) from its 2019 budget, with the principal area of increase being the Compliance Monitoring and Enforcement and Organization Registration and Certification Program (\$568,693 increase). Texas RE's proposed 2020 assessment amount is \$13,344,128, an increase of \$96,128 (0.7%) from its 2019 assessment amount. The increase in the assessment is the net result of (i) the increased budget, (ii) an increase in Penalty collections of \$595,551 from the 2019 budget, (iii) an increase in budgeted Interest income of \$25,000, and (iv) an increase in assessments for Working Capital Reserve of \$263,002, as compared to an increase for Working Capital Reserve in the 2019 budget of \$307,851 (*i.e.*, the adjustment for Working Capital Reserve increases assessments by \$44,849 less than in the 2019 budget).

Texas RE's budgeted total staffing for statutory and administrative programs for 2020 is 60 FTEs, the same as in its 2019 budget (and its 2014 through 2018 budgets), with no staffing changes planned for any of the individual statutory programs or administrative departments. Texas RE's budgeted 2020 Administrative Services expenditures are \$5,662,460, an increase of \$567,699 from its 2019 budget, due primarily to increased Personnel expense, Consultants and Contract expense (primarily for Trustee search fees and IT services), and Office Rent (due to a

lease extension), partially offset by a \$104,273 decrease in Fixed Asset Additions.

Texas RE's desired Working Capital Reserve (Operating Reserve) at December 31, 2020 is \$2,000,000, the amount provided for in Texas RE's Board-approved policy; however, Texas RE is also proposing to add \$793,996 to the Operating Reserve for assessment stabilization purposes. (The target Reserves level was reduced by \$1,245,000 in the 2018 budget to limit the amount of increase in the 2018 assessment.) Texas RE's projected Working Capital Reserve balance at December 31, 2019 is \$2,530,999. Therefore, Texas RE proposes to increase its 2020 statutory assessment by \$263,002 to reach the combined Working Capital Reserve (Operating Reserve) and Assessment Stabilization target of \$2,793,996 at December 31, 2020.

Texas RE's total non-statutory budget for 2020 is \$1,191,965.

## **6. WECC**

**Attachment 8** is WECC's proposed 2020 Business Plan and Budget. WECC's 2020 total statutory budget is \$27,756,089, an increase of \$805,023 (3.0%) from its 2019 budget, with the primary areas of increase being in WECC's CMEP and RAPA programs. WECC's proposed 2020 statutory assessment is \$25,282,000, which is the same amount as its 2019, 2018 and 2017 assessments. WECC's 2020 assessment is the same as the 2019 assessment due to the net effect of (i) the increased budget, (ii) an increase of \$2,157,314 in Penalty collections from the 2019 budget, (iii) an increase in budgeted Funding from Workshops & Miscellaneous and Interest income totaling \$112,750 from the 2019 budget, and (iv) an increase in assessments for Working Capital Reserve of \$928,161 as compared to a decrease for Working Capital Reserve of \$536,380 in the 2019 budget (*i.e.*, the adjustment for Working Capital Reserve in the 2020 budget increases assessments by \$1,464,541 as compared to the 2019 budget).

WECC's budgeted total staffing for statutory and administrative programs for 2020 is 143.0 FTEs, the same as its budgeted 2019 staffing. The budgeted 2020 staffing is comprised of

104.5 FTEs (decrease of 0.5 FTE) in statutory programs and 38.5 FTEs (increase of 0.5 FTE) in Corporate Services (administrative functions). Staffing is being increased by 1.0 FTE in the CMEP program (to 61.0 FTEs), with minor increases and decreases in several other departments. WECC's total budgeted 2020 Corporate Services expenditures are \$9,931,907, an increase of \$712,152 from its 2019 budget, due primarily to increases in Office Rent (due to a new lease for WECC's Salt Lake City office) and Personnel expenses.

WECC's projected Working Capital Reserve at December 31, 2020 is \$7,752,113, based on a Board-approved Working Capital Reserve balance of one to three months of Personnel Expenses, Meeting Expenses and Operating Expenses. WECC projects a Working Capital Reserve balance of \$6,823,951 at December 31, 2019. Therefore, WECC's 2020 assessment is increased by \$928,162 to achieve its projected Working Capital Reserve at December 31, 2020; this also results in no change in WECC's 2020 assessment from its 2019 assessment, consistent with WECC's assessment stabilization initiative.

WECC's allocation of its 2020 assessment to the AESO for the Province of Alberta has been reduced by \$1,074,088, representing WECC compliance costs (including allocated Indirect Costs and Fixed Assets) considered duplicative of the AESO's compliance and enforcement programs.<sup>38</sup> The AESO credit amount is allocated to the remainder of the LSEs (Balancing Authorities) in the WECC region based on NEL. Appendix C to WECC's 2020 Business Plan and Budget (**Attachment 8**) shows the calculation of the adjustment to the AESO assessment.

WECC's 2020 budget for non-statutory expenses is \$1,831,535.

## **VI. WIRAB FUNDING REQUEST**

In its Order issued July 20, 2006, in Docket No. RR06-02-000, the Commission

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<sup>38</sup> 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.



concluded that reasonable costs incurred by the Western Interconnection Regional Advisory Body (WIRAB) for activities under §215(j) of the FPA can be funded through the ERO funding process.<sup>39</sup> As specified in P 35 of the *WIRAB Order*, WIRAB submitted to NERC a proposed 2020 Business Plan and Budget for §215(j) activities, **Attachment 9** to this filing. NERC has reviewed WIRAB's submission and believes it complies with P 35 of the *WIRAB Order*.

WIRAB's proposed 2020 budget for expenses is \$1,255,200, a \$92,500 (8.0%) increase from its 2019 budget. WIRAB's budgeted staffing for 2020 is 5.00 FTEs, the same staffing provided for in its 2019 budget. WIRAB's budgeted 2020 Personnel Expense is \$478,300, a 9.6% increase from its 2019 budget. WIRAB's 2020 budget includes \$100,000 for Consultants & Contracts expense, the same amount as in its 2019 budget, to provide technical expertise to WIRAB on issues related to improved grid operating practices, Reliability Standards and compliance, and to support WIRAB in providing technically sound advice to WECC, NERC and the Commission as authorized under §215(j) of the FPA.

WIRAB's proposed statutory assessment for 2020 is \$986,300, an increase of \$236,300 (31.5%) from its 2019 assessment. The increased assessment reflects (i) the \$92,500 budget increase, and (ii) a \$268,300 decrease for Working Capital Reserve, as compared to a \$412,100 reduction for Working Capital Reserve in the 2019 budget (*i.e.*, the adjustment for Working Capital Reserve reduces the WIRAB assessment by \$143,800 less than in the 2019 budget). The \$268,300 reduction to the assessment for Working Capital Reserve is based on an assessment stabilization policy that targets a Working Capital Reserve of \$277,400 at December 31, 2020 (about 22% of budgeted expenses), as compared to a projected Working Capital Reserve at December 31, 2019 of \$545,700. WIRAB's total assessment request of \$986,300 is allocated

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<sup>39</sup>*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.

\$826,096 to the U.S., \$144,259 to Canadian provinces, and \$15,944 to Mexico.

## **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 12** and **Attachment 13** to this filing.

**Attachment 12** provides the following information relating to the Regional Entities' operations based on their 2020 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 Capital Expenditures)
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 12** provides the following metrics and graphics based on the Regional Entities' 2020 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 (2019) and the budget year (2020)

**Attachment 13** provides the following metrics on the budgeted Administrative Services costs of NERC and each Regional Entity, based on their budgets for 2019 and 2020:

1. Statutory Indirect (Administrative) Budget as a Percentage of Total Statutory Budget, for 2019 and 2020
2. Ratio of Statutory Direct Budget to Statutory Indirect Budget, for 2019 and 2020
3. Statutory Indirect FTEs as a Percentage of Total Statutory FTEs, for 2019 and 2020
4. Number of Direct Statutory FTEs per Indirect FTE, for 2019 and 2020

## **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, 2019: (1) accepting NERC's proposed 2020 Business Plan and Budget in **Attachment 2**; (2) accepting the proposed 2020 Business Plans and Budgets of the six Regional Entities for statutory activities in **Attachments 3 through 8** (including, pursuant to §1107.4 of the NERC ROP, the application of Penalty collections proposed by MRO and SERC, as described in §V.B.1 and §V.B.4 above, as exceptions to NERC ROP §1107.2; (3) accepting the proposed budget and funding requirement of WIRAB for 2020 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 2020 Funding requirement allocated to the United States and the 2020 Funding requirement for statutory activities of each Regional Entity and WIRAB allocated to the United States.

Respectfully submitted,

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**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 1**

**SUMMARY TABLES FOR NERC AND REGIONAL ENTITY**

**PROPOSED 2020 BUDGETS AND ASSESSMENTS**

## NERC Proposed Budget by Program

NERC Program	2019 Budget for Statutory Functions <sup>1</sup>	2020 Budget for Statutory Functions
Reliability Standards and Power Risk Issue Strategic Management	\$ 6,676,078	\$ 8,249,572
Compliance Assurance and Organization Registration and Certification	13,944,416	12,292,101
Compliance Enforcement	6,857,235	6,725,572
Reliability Assessment and Performance Analysis	13,232,197	13,122,303
Situation Awareness	4,296,209	4,256,006
Event Analysis	5,299,268	4,733,857
E-ISAC (including CRISP)	27,325,627	31,284,791
Personnel Certification and Continuing Education	1,043,763	1,738,288
Training and Education	1,179,862	1,014,986
<b>Total Budget</b>	<b>\$ 79,854,655</b>	<b>\$ 83,417,476</b>

<sup>1</sup>Starting in 2020, NERC will no longer include workshop fees as a funding line item, but instead account for this income in meeting expenses as an offset to costs. As such, the 2019 budget has been restated accordingly for comparable reporting.

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

	2019 Budget for Statutory Functions	2020 Budget for Statutory Functions
NERC	\$ 79,854,655	\$ 83,417,475
FRCC	6,695,787	-
MRO	15,980,354	17,540,969
NPCC	15,803,891	16,601,647
ReliabilityFirst	22,648,458	23,650,862
SERC	18,144,948	24,525,013
Texas RE	13,069,599	13,831,126
WECC	26,950,566	27,756,089
WIRAB	1,162,700	1,255,200
<b>Total Budget</b>	<b>\$ 200,310,958</b>	<b>\$ 208,578,381</b>

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

	Assessments for		Assessments for		Allocation to U.S.	
	Statutory	Allocation to	Statutory	Allocation to	2020 Budget v	% Over
	Functions 2019	U.S. 2019	Functions 2020	U.S. 2020	2019 Budget	(Under)
					Over (Under)	(Under)
<b>NERC</b>	\$ 68,883,995	\$ 62,466,508	\$ 72,011,373	\$ 65,130,829	\$ 2,664,321	4.27%
<b>Regional Entities</b>	\$ 113,461,051	\$ 102,848,341	\$ 115,725,862	\$ 104,700,963	\$ 1,852,623	1.80%
FRCC	5,827,925	5,827,925	-	-		
MRO	15,471,669	13,914,246	16,983,251	15,302,710		
NPCC	15,003,411	9,169,256	15,338,737	9,575,689		
ReliabilityFirst	21,255,831	21,255,831	22,318,623	22,318,623		
SERC	17,372,215	17,372,215	22,459,123	22,459,123		
Texas RE	13,248,000	13,248,000	13,344,128	13,344,128		
WECC	25,282,000	22,060,868	25,282,000	21,700,691		
<b>WIRAB</b>	\$ 750,000	\$ 629,532	\$ 986,300	\$ 826,096	\$ 196,564	31.22%
<b>Total Budget</b>	\$ 183,095,046	\$ 165,944,382	\$ 188,723,535	\$ 170,657,889	\$ 4,713,507	2.84%

**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 2**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



**NERC**

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# 2020 Business Plan and Budget

Final

August 7, 2019

RELIABILITY | RESILIENCE | SECURITY



3353 Peachtree Road NE  
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Atlanta, GA 30326  
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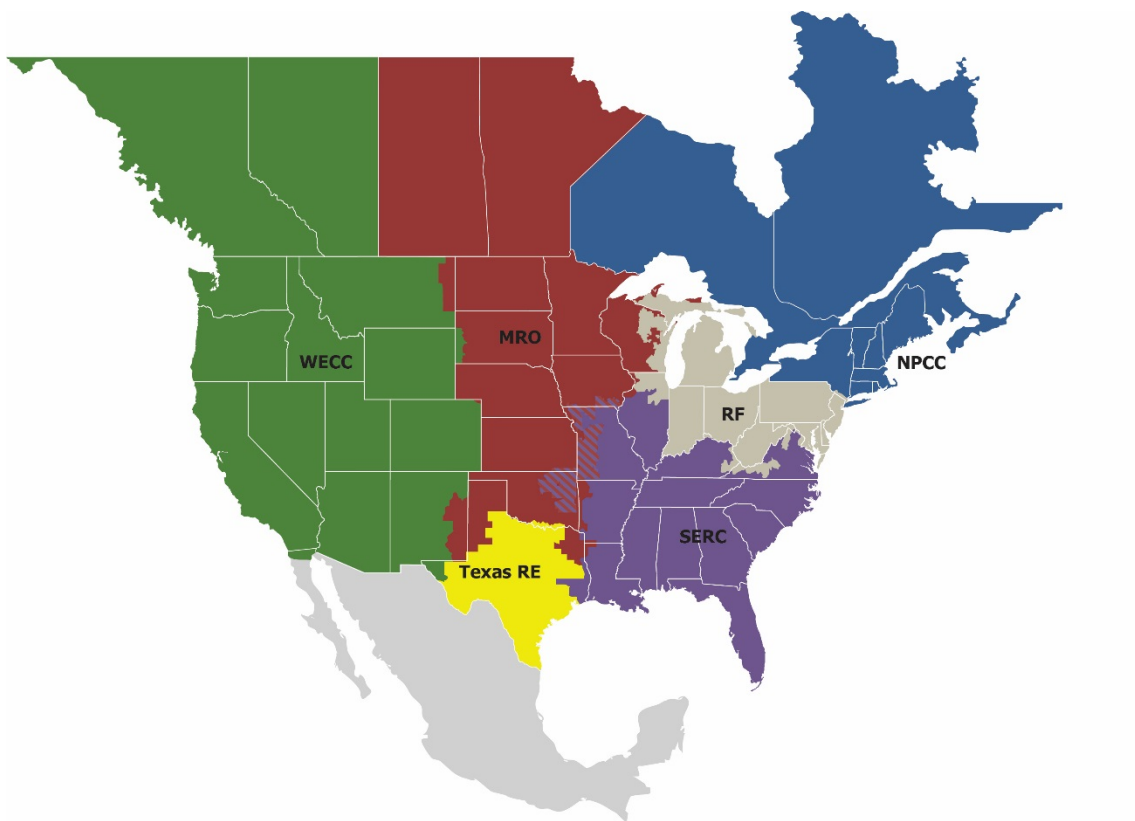
## Preface

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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.



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

# About NERC

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## Overview

NERC is a not-for-profit entity organized under the New Jersey Nonprofit Corporation Act. NERC's area of responsibility spans the continental United States and portions of Canada and Mexico. Entities under NERC's jurisdiction are the users, owners, and operators of the BPS<sup>1</sup>—a system that serves the needs of nearly 400 million people, includes installed electricity production capacity of approximately 1.1M megawatts, operates 469,842 circuit miles of high-voltage transmission (100 kV and above), and is comprised of assets worth more than one trillion dollars.

## Electric Reliability Organization

The Federal Energy Regulatory Commission (FERC) certifies and has oversight of NERC as the 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 provinces<sup>2</sup> and the National Energy Board of Canada in furtherance of this framework, and Mexico is in the process of implementing such a framework after a historic restructuring of Mexico's electricity industry and reforms of the country's regulatory framework were enacted in 2013 and 2014. NERC is working 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 that, as Mexico implements its new authorities, they will be consistent with the framework in Canada and the United States and support continent-wide reliability and security.

## Membership and Governance

A 12-member Board, comprised of 11 independent trustees and NERC's president and chief executive officer (CEO) 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, 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 through election to the Member Representatives Committee (MRC).<sup>3</sup> 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).

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<sup>1</sup> NERC's standards, compliance, and enforcement activities are focused on the [Bulk Electric System \(BES\)](#), which is comprised of certain BPS facilities.

<sup>2</sup> British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia.

<sup>3</sup> 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 and maintaining the necessary knowledge and skills to perform their 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 unusual events as well as measuring ongoing system trends to determine root causes, uncovering lessons learned, and issuing relevant findings as advisories, recommendations, guidelines, and essential actions to the industry 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 regional reliability entities (Regional Entities or the Regions) to perform aspects of the ERO functions described through delegation agreements. FERC has approved delegation agreements between NERC and the six Regional Entities. These agreements describe the authorities delegated and responsibilities assigned to the Regional Entities 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) situational awareness and infrastructure security. NERC expects Regional Entities whose territories and geographic footprints extend into Canadian provinces and Mexico to perform equivalent functions in those jurisdictions.

The Florida Reliability Coordinating Council (FRCC) has also performed certain reliability obligations under a delegation agreement with NERC. On February 27, 2019, NERC, jointly with FRCC and SERC, filed a petition with FERC for approvals needed to dissolve the FRCC Regional Entity (FRCC RE), including FRCC transferring the FRCC registered entities to the jurisdiction of SERC. FERC issued an order granting the requested approvals on April 30, 2019. Registered entities transferred to SERC's jurisdiction on July 1, 2019 and, under the current schedule, FRCC will wind down its regional entity operations by August 31, 2019.

## ERO Enterprise Model and Transformation

The collective network of leadership, experience, skills, and technologies shared among NERC and the Regional Entities is referred to as the ERO Enterprise. The ERO Enterprise is a collaborative organization 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; the model enables innovative and distinctive approaches to address these unique reliability risks and challenges locally. 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, marking a new commitment across the ERO Enterprise:

- The ERO Enterprise commits to work together as one team and honor each of our roles.
- The ERO Enterprise commits to listen, to actively support ERO Enterprise activities, and to eliminate unnecessary duplication of work.
- The ERO Enterprise commits to collaborate in developing clear and consistent guidance across the ERO Enterprise.
- The ERO Enterprise commits to be an information, knowledge, and resource sharing ERO Enterprise.
- The ERO Enterprise commits to develop and share harmonized messages across ERO Enterprise communications.
- The ERO Enterprise supports innovation and initiative and the sharing of best practices across the ERO Enterprise.

NERC has unique responsibilities to oversee program areas, set qualifications and expectations for the performance of delegated activities, and assess, train, and give feedback to corresponding Regional Entity programs. NERC and the Regional Entities also coordinate activities to identify, prioritize, and address risks to reliability. The Regional Entities have a mirrored set of responsibilities within the ERO Enterprise model, providing input into 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.

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.

### **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,<sup>4</sup> and FERC's regulations and orders issued pursuant to Section 215. In Canada, NERC's authorities are established by the memoranda of understanding and regulations previously mentioned.

### **Funding**

FPA Section 215 and FERC's regulations specify procedures for NERC's funding in the United States. NERC's annual business plan and budget (BP&B) is subject to FERC approval in the United States 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. The Regional Entities' 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 Regional Entity budgets are included in the overall NERC assessments to load-serving entities.

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<sup>4</sup> Section 215 of the FPA, 16 United States C. 824o.

## Introduction and Executive Summary

TOTAL RESOURCES (in whole dollars)				
	2020 Budget	U.S.	Canada	Mexico
Statutory FTEs	213.38			
Non-statutory FTEs	-			
<b>Total FTEs</b>	<b>213.38</b>			
Statutory Expenses	\$ 78,711,127			
Non-Statutory Expenses	\$ -			
<b>Total Expenses</b>	<b>\$ 78,711,127</b>			
Statutory Fixed Asset Additions	\$ 4,706,349			
Non-Statutory Fixed Asset Additions	\$ -			
<b>Total Fixed Asset Additions</b>	<b>\$ 4,706,349</b>			
Statutory Funding of Reserves	\$ (650,083)			
Non-Statutory Funding of Reserves	\$ -			
<b>Total Working Capital Requirement</b>	<b>\$ (650,083)</b>			
<b>Net Proceeds from Financing Activities</b>	<b>\$ (760,442)</b>			
Total Statutory Funding Requirement	\$ 82,006,951			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	<b>\$ 82,006,951</b>			
	<b>TOTAL</b>	<b>US</b>	<b>CANADA</b>	<b>MEXICO</b>
<b>Statutory Funding Assessments</b>	<b>\$ 72,011,373</b>	<b>\$ 65,130,829</b>	<b>\$ 6,655,929</b>	<b>\$ 224,615</b>
<b>Non-Statutory Fees</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>NEL</b>	<b>4,590,769,783</b>	<b>4,066,914,561</b>	<b>509,829,755</b>	<b>14,025,467</b>
<b>NEL%</b>	<b>100.00%</b>	<b>88.59%</b>	<b>11.11%</b>	<b>0.31%</b>



## Strategic and Operational Planning

ERO Enterprise strategic and operational planning involves multiple steps and processes:

- **Reliability Issues Steering Committee (RISC)** – The RISC holds a biennial Reliability Leadership Summit to review and discuss new and emerging risks to the BPS. Resulting from this summit is the *ERO Reliability Risk Priorities* report (RISC report) that provides a summary of these BPS risks.
- **ERO Enterprise Long-Term Strategy** – The long-term strategy discusses key challenges and strategic focus areas for the ERO Enterprise over the next five to seven years. The long-term strategy is reviewed on a periodic basis to identify any needed adjustments. The RISC report, among other sources, is used to gauge the need for updates to the long-term strategy.
- **ERO Enterprise BP&Bs** – The ERO Enterprise is transitioning away from the use of the *ERO Enterprise Operating Plan* by replacing it through updates to the *ERO Enterprise Long-Term Strategy* and additional information in the BP&Bs. The narratives in each BP&B set the specific annual activities, resources, and resource allocation in support of ERO Enterprise operations. The BP&Bs are prepared, reviewed, and approved annually for NERC and each of the Regional Entities.
- **ERO Work Plan Priorities** – NERC and each Regional Entity may 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.<sup>5</sup>

### Reliability Risks and the RISC Report

The most recent Reliability Leadership Summit, which is sponsored by the RISC, was held on March 14, 2019. The purpose of the summit was to bring industry leaders together to coordinate and agree on critical risks to the BPS. A key message from the summit is that risks to the BPS have generally remained the same from the previous summit with only one new risk identified: Critical Infrastructure Interdependencies. After the summit, an Emerging Risks Survey was distributed to various organizations and stakeholders to rank the risks in terms of likelihood and impact. The risks are as follows:

- Cyber Security Vulnerabilities
- Critical Infrastructure Interdependencies
- Changing Resource Mix
- Extreme Natural Events
- Physical Security Vulnerabilities
- Protection System Complexity
- Human Performance and Skilled Workforce
- Loss of Situational Awareness
- Resource Adequacy and Performance
- Bulk Power System Planning

These risks are continuing to be reviewed by the RISC in preparation for an updated RISC report later in 2019. The long-term strategy will also be updated later in 2019 to reflect certain items previously in the operating plan and to ensure alignment with the above risks and associated criticality.

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<sup>5</sup> [ERO Work Plan Priorities](#) for 2019 were approved by the Board in February 2019. NERC management and the Board will evaluate annual work plan priorities each year.

## ERO Enterprise Operating Plan and Goals

While the organization is transitioning away from the existing *ERO Enterprise Operating Plan*, the goals of the operating plan are still relevant to much of the work being performed across the ERO Enterprise. In many cases, NERC and the Regional Entities will discuss departmental goals that align with the operating plan during this transition period. The following goals are in the last version of the operating plan and will be incorporated into the *ERO Enterprise Long-Term Strategy* and/or each entity's BP&B going forward.

- Risk-Responsive Reliability Standards
- Objective, Risk-Informed Compliance Monitoring, Mitigation, Enforcement, and Entity Registration
- Reduction of Known Reliability Risks
- Identification and Assessment of Emerging Reliability Risks
- Identification and Reduction of Cyber and Physical Security Risks
- Effective and Efficient Operations

## Ongoing Focus on Effectiveness and Efficiency

NERC and the Regional Entities continue to collaborate to improve effectiveness and efficiency, evaluate resources, and leverage combined skillsets to improve ERO Enterprise activities and control costs. This collaboration and resulting efficiencies can be found in a number of areas. In 2019, the near-term focus was on the following:

- **Stakeholder Engagement** – As the ERO Enterprise has matured, a future state of stakeholder engagement is needed to (1) pivot quickly and refocus resources rapidly; (2) bring multi-disciplined teams together to develop complete solutions; (3) leverage scarce talent to solve problems and maximize return; and (4) work collaboratively to solve problems. A Stakeholder Engagement Team has been formed to review the existing NERC technical committee structure, drawing upon the experience of successfully enhanced Regional Entity committee models, and develop recommendations to improve the effectiveness and efficiency of the committees.
- **Compliance Monitoring and Enforcement Program (CMEP)** – NERC and the Regional Entities are concentrating on the following areas: (1) efficiency in data gathering and analysis tools, especially through the implementation of the Align application; (2) continued implementation of risk-based compliance monitoring; (3) outreach and education describing how the ERO Enterprise executes its compliance monitoring responsibilities; and (4) identifying ways to further streamline the resolution of minimal risk noncompliance. For more information on Align, see the [Align Project](#) page on the NERC website.
- **Standards Efficiency** – NERC is continuing the project to evaluate NERC Reliability Standards using a risk-based approach to identify potential efficiencies through retirement or modification of Reliability Standard Requirements. For more information, see the [Standards Efficiency Review](#) page on the NERC website.

Additional information on long-term and ongoing effectiveness and efficiency goals can be found in the *ERO Enterprise Long-Term Strategy*.

## 2020 Business Plan and Budget Summary

NERC and the Regional Entities use the planning processes discussed above to guide the development of their respective BP&Bs, evaluating their projected workloads and determining resource levels and allocation required to complete necessary tasks and meet their statutory obligations. In this BP&B document, *Exhibit A – Application of NERC Section 215 Criteria*, summarizes the major activities NERC proposes to undertake in 2020 and the approved FPA Section 215 criteria applicable to such activities.<sup>6</sup>

### Budget Reporting Format and Presentation Changes

NERC and the Regional Entities' budgets are comprised of both operating and fixed asset (capital) costs. Operating costs generally include personnel, contractor support, consulting, meetings and 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, are shown in a Statement of Activities and Fixed Asset Expenditures report, which is provided at both the total entity and departmental levels. These reports include funding and expenses for the current budget year and prior budget year to show year-over-year changes.

### Workshop and Event Fees

Starting with its 2020 budget, NERC will no longer include workshop or event fees as a revenue funding line item, but instead account for this income in meeting expenses as an offset to costs. This supports the goal of providing a total budget amount (and annual budget percentage increase) that more closely reflects the amount of annual revenues required from assessments. In this 2020 BP&B, the 2019 workshop funding line has been removed and meeting expenses have been restated for comparable reporting.

### Organizational Changes

In late 2018, NERC management went through an organizational assessment involving various program areas and re-characterized several positions and departments. The changes had no effect on the total full-time equivalents (FTEs), and the net cost impact of these movements was immaterial; however, the changes affect 2020 versus 2019 budget comparisons at the departmental level for several areas. Therefore, certain departmental budget reports have been consolidated for more comparable reporting.

### Continuing Education Program

The expenses for program activities and funding from testing fees for the System Operator Certification program, which is addressed by ROP Section 600 and governed by the Personnel Certification and Governance Committee (PCGC), are budgeted to NERC's Personnel Certification department. The Continuing Education (CE) program for System Operators, addressed by ROP Section 902, has historically not been governed by the PCGC, and the associated program activities and testing fee funding has been budgeted to NERC's Training and Education department. In 2019, as part of the effectiveness and efficiency efforts to evaluate NERC's committee structure discussed above, NERC and members of the Stakeholder Engagement Team evaluated and are proposing, subject to Board and FERC approval, to move the governance of the CE program and budget to the PCGC (which may require amendments to the NERC Bylaws and ROP). As a result, the 2020 budget reflects the anticipated move of CE program expenses and funding from the Training and Education budget to the Personnel Certification budget.

### Reclassifications

From time to time, the organization will evaluate accounting policies and classifications and make changes. NERC's 2020 budget reflects an evaluation and resulting reclassification of certain expenses

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<sup>6</sup> North American Electric Reliability Corporation, Order on Compliance, 143 FERC ¶ 61,052 (2013).

between departments or expense categories. Most notably, a number of software maintenance and support expenditures classified as Consultants and Contracts have been reclassified to the Software Licenses and Support line item under Office Costs. This is reflected as an increase in Office Costs and decrease in Consultants and Contracts expenses accordingly.

### **Statement of Activities and Fixed Asset Expenditures Report Changes**

Beginning with the 2020 BP&Bs, NERC and the Regional Entities are implementing format revisions to the presentation of the Statement of Activities and Fixed Asset Expenditures report. These revisions are to ensure that NERC and the Regional Entities report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), provide enhanced transparency of financing activity (e.g., debt borrowing, leased-financed asset purchases, and principal payments), if applicable, and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). The goal of the new format is to improve 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. One of the more notable format revisions is that the reports will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (which resulted in depreciation having no impact on funding requirements or actual results).

As a result of these changes, in this 2020 BP&B document the 2019 budget has been restated to reflect the new reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, depreciation expense has been removed from the 2019 operating expense budgets and projections, and the equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections.

### **Overview of 2020 Budget and Funding Requirements**

NERC's 2020 expense and fixed asset budget is approximately \$83.4M, which represents an increase of approximately \$3.6M (4.5%) from the 2019 budget. Total expenses are increasing approximately \$3.6M (4.8%) over 2019. The total fixed asset budget is approximately \$4.7M, a decrease of \$72k (1.5%) from 2019. Approximately \$8.8M (10.5%) of NERC's 2020 budget is related to CRISP, with the majority of the CRISP budget funded by participating utilities, with a small portion funded through assessments.

NERC's proposed 2020 assessment is approximately \$72.0, which represents an increase of \$3.1M (4.5%) from 2019. Factors contributing to the difference between the proposed budget increase and the proposed assessment increase include debt (capital financing) assumptions and other funding, such as from CRISP. Additionally, the allocation of assessments to Canadian entities will reflect the final determination and allocation of certain compliance and enforcement costs to Canadian entities pursuant to [NERC's Expanded Policy on Allocation of Certain Compliance and Enforcement Costs](#).

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 and FERC approved the creation of the Assessment Stabilization Reserve, 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 is 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. For 2019, the assessment included a \$550k transfer from the Assessment Stabilization Reserve. Management believes that due to reduced debt service, increased interest income, and a surplus of working capital, a release of funds from the Assessment Stabilization Reserve is not necessary in 2020.

The following table provides a high-level year-over-year comparison of the major categories of expenses, total budget, and FTEs.

## Statement of Activities and Fixed Asset Additions 2019 and 2020 Budgets

## STATUTORY

	2019 Budget	2019 Projection	Variance	2020 Budget	Variance	% Over (Under)
			2019 Projection v 2019 Budget Over(Under)		2020 Budget v 2019 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
NERC Assessments	\$ 68,883,995	\$ 68,883,995	\$ -	\$ 72,011,373	\$ 3,127,378	4.5%
Assessment Stabilization Reserve - Penalties	550,000	550,000	-	-	(550,000)	
Third-Party Funding (CRISP)	7,486,353	7,338,907	(147,446)	7,814,577	328,224	
Testing Fees	1,790,000	1,715,000	(75,000)	1,735,000	(55,000)	
Services & Software	40,000	40,000	-	60,000	20,000	
Miscellaneous	-	260	260	-	-	
Interest & Investment Income	185,000	544,854	359,854	386,000	201,000	
<b>Total Funding (A)</b>	<b>\$ 78,935,349</b>	<b>\$ 79,073,016</b>	<b>\$ 137,668</b>	<b>\$ 82,006,951</b>	<b>\$ 3,071,602</b>	<b>3.9%</b>
<b>Expenses</b>						
Personnel Expenses	\$ 43,952,190	\$ 44,389,285	\$ 437,095	\$ 46,598,160	\$ 2,645,970	6.0%
Meeting Expenses	3,185,400	3,433,050	247,651	3,323,250	137,850	4.3%
Operating Expenses, excluding Depreciation	27,724,893	28,581,088	856,195	28,533,094	808,200	2.9%
Other Non-Operating	214,171	139,971	(74,200)	256,623	42,452	19.8%
<b>Total Expenses (B)</b>	<b>\$ 75,076,655</b>	<b>\$ 76,543,395</b>	<b>\$ 1,466,740</b>	<b>\$ 78,711,127</b>	<b>\$ 3,634,472</b>	<b>4.8%</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 4,778,000</b>	<b>\$ 3,847,990</b>	<b>\$ (930,010)</b>	<b>\$ 4,706,349</b>	<b>\$ (71,651)</b>	<b>-1.5%</b>
<b>Total Budget (=B+C)</b>	<b>\$ 79,854,655</b>	<b>\$ 80,391,385</b>	<b>\$ 536,730</b>	<b>\$ 83,417,476</b>	<b>\$ 3,562,821</b>	<b>4.5%</b>
<b>FTEs</b>	<b>204.92</b>	<b>202.16</b>	<b>(2.76)</b>	<b>213.38</b>	<b>8.46</b>	<b>4.1%</b>

## Key Budget Assumptions

Key assumptions used in the development of NERC's 2020 budget include the following:

- A net increase to headcount of 9 (8.46 FTEs).** This reflects an increase of 7 additional positions for the E-ISAC directly and 3 positions in corporate areas in support of the E-ISAC long-term strategy. This also reflects an increase of 2 corporate support positions resulting from contractor conversions for critical roles (increase in personnel costs and reduction in consultants and contracts expenses, with a slight savings). This increase of 12 positions is offset by a decrease of 3 positions in the rest of NERC operations, resulting in a net increase of 9 positions. A 6.0% reduction to FTEs (vacancy rate) is applied to account for attrition and hiring delays, which is the same as 2019. FTEs by department are discussed later in this section.
- Investment for the third year of the E-ISAC long-term strategy.** While the FTE increase for the E-ISAC discussed above accounts for the majority of the budget increase for E-ISAC, the strategy also calls for investment in technology, including new tools for data management, continued investment in E-ISAC portal enhancements, and contractors for overall technology support. The E-ISAC long-term strategy is discussed further below.
- Investments in technology and tools.** This includes funding for the last year of development for the Align Project (also referred to as ALIGN or the CMEP Technology Project), planned enhancements to the Centralized Organization Registration ERO System (CORES), and maintenance and enhancements to a suite of data management tools for grid performance analysis. These projects and tools are discussed further below.
- Market-based compensation for personnel and medical and dental benefit plan costs.** Personnel costs are increasing \$2.6M (6.0%), which reflects (1) the addition to headcount discussed above, (2) a 3.0% increase over actual 2019 base salaries for merit adjustments and, as directed by the Board, up to 0.5% for equity and market adjustments, and (3) anticipated increases for medical and dental benefit plan costs. 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 2017. 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 2020.

### **E-ISAC Long-Term Strategy**

Over the past several years the E-ISAC has focused on improving its technical and analytical capabilities with the goal of becoming the electricity industry's leading, trusted source for analysis and sharing of security information. Significant support from the Electricity Subsector Coordinating Council (ESCC), the ESCC Members Executive Committee (MEC), the DOE, and other stakeholders have helped the E-ISAC provide the industry with unique insights, leadership, and coordination on security matters. For more information on the E-ISAC, see the [E-ISAC website](#).

At the request of the Board and under the guidance of the ESCC and MEC, executive leadership of the E-ISAC developed the [E-ISAC Long-Term Strategic Plan](#), which was approved by the MEC on April 24, 2017 and accepted by the Board on May 11, 2017. This long-term strategic plan includes a five-year resource plan to transform the E-ISAC into a world-class intelligence collecting and analytical capability for the electricity industry. To implement this vision, the E-ISAC is undertaking a deliberate growth strategy that increases both staff and technical resources. Based on industry and stakeholder feedback, the 2020 BP&B includes the third year's recommended resource and technology additions related to this strategy, primarily related to watch operations, analytical capabilities, and engagement. See the *Electricity Information Sharing and Analysis Center* section of Section A for further information.

### **Align and CORES Projects**

Since 2014, NERC has been working closely with the Regional Entities to evaluate and implement strategic investments in tools that will replace the current three CMEP and Registration data applications used among NERC and the Regional Entities with single, common applications, known as Align for CMEP and CORES for Registration.

The objectives and benefits of the Align project 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. There will be a release in 2019 that will support self-reporting, self-logging, enforcement, and mitigation. There will be two more releases in 2020, the final development year, which will support Compliance Assurance activities. For more information, see the [Align Project](#) page on the NERC website.

CORES similarly creates consistent Regional Entity 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 is scheduled by the end of 2019, with further enhancements planned for 2020. For more information, see the [CORES Technology Project](#) page on the NERC website.

### **Data Management Technology and Tools**

NERC is responsible for the collection, management, and analysis of data related to the performance of BPS operations. The tools used to collect and manage the data for these analyses include the Generating Availability Data System (GADS), Transmission Availability Data System (TADS), Demand Response Availability Data System (DADS), Reliability Assessment Data System (RADS), the Balancing Authority Submittal Site (BASS), as well as data management tools related to the areas of misoperations, event analysis, and situational awareness. NERC also recently developed a software tool for the collection of

wind data for GADS as a result of a ROP Section 1600 data request.<sup>7</sup> NERC is also working to develop a link between performance and event analysis data to enhance its ability to conduct effective event analyses, as well as to identify key areas for trend analyses across multiple databases. As the grid evolves, the ability to collect and the quality and integration of data become increasingly important, requiring continued investment in enhancements to and maintenance of the suite of data management tools. NERC also continues to develop technology applications for the collection of new data under Section 1600 data requests. This includes the collection of Geomagnetic Disturbance (GMD) data, as directed by [FERC Order 830](#) and approved by the Board on August 16, 2018. Additionally, NERC expects to work with industry on a Section 1600 data request for the collection of data for solar energy storage associated with solar and wind generation, as well as event reporting for solar and wind generation. For more information, see the *Reliability Assessment and Performance Analysis* section of Section A.

### **Fixed Asset (Capital) Budget and Capital Financing**

NERC's 2020 fixed asset budget is approximately \$4.7M, which represents a decrease of \$72k from 2019. This decrease is primarily due to reduced spending on ERO Enterprise software projects. The fixed asset budget for 2020 includes:

- Capital ERO Enterprise and NERC software development and enhancements, including the final development year for Align, as well as enhancements to CORES, the E-ISAC Portal, and the GADS, TADS, and DADS database systems;
- Information Technology equipment, including hardware servers, storage, disaster recovery, and network devices, as well as an upgrade to the video wall in the NERC Atlanta office situational awareness room; and
- Leasehold improvements for office and meeting space enhancements for the NERC Atlanta office.

A detailed breakdown by category is provided in Table B-12 – Fixed Assets.

Approximately \$2.0M of the \$4.7M in fixed asset expenditures is related to the planning, design, and implementation of software applications supporting ERO Enterprise tools. Of the \$2.0M, approximately \$1.8M relates to the final development year of the Align application.<sup>8</sup> The remaining \$200k is for planned enhancements to CORES after the initial release in 2019. The 2020 budget assumes that this \$2.0M expenditure will be financed through the capital financing program described in and put in place as part of NERC's 2014 BP&B. Further information regarding capital financing can be found in *Exhibit C – Capital Financing*.

### **Program Budget and FTE Comparisons**

The following table shows a 2020 versus 2019 total budget comparison by program area. The amounts reflect all direct and indirect departmental costs, including fixed asset costs. Costs incurred for general and administrative and other overheads 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.

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<sup>7</sup> In accordance with ROP Section 1600, NERC may request data or information from registered entities that is necessary to meet NERC's obligations under Section 215 of the FPA.

<sup>8</sup> The total capital expenditure for Align is expected to be approximately \$5.0–6.0M, with work spanning from 2017 through 2020.

## 2020 versus 2019 Total Budget by Program

Total Budget	2019 Budget	2020 Budget	Increase (Decrease)	
Reliability Standards	\$ 6,676,078	\$ 8,249,572	\$ 1,573,494	23.6%
CMEP*	20,801,651	19,017,673	(1,783,978)	-8.6%
RAPA*	13,232,197	13,122,303	(109,893)	-0.8%
Event Analysis	5,299,268	4,733,857	(565,411)	-10.7%
Situation Awareness	4,296,209	4,256,006	(40,203)	-0.9%
Personnel Certification	1,043,763	1,738,288	694,525	66.5%
Training and Education	1,179,862	1,014,986	(164,876)	-14.0%
<b>NERC Budget, excluding E-ISAC</b>	<b>\$ 52,529,028</b>	<b>\$ 52,132,685</b>	<b>\$ (396,342)</b>	<b>-0.8%</b>
E-ISAC (non-CRISP)	\$ 18,281,920	\$ 22,488,636	\$ 4,206,716	23.0%
E-ISAC (CRISP)	9,043,707	8,796,155	(247,552)	-2.7%
<b>Total E-ISAC Budget</b>	<b>\$ 27,325,627</b>	<b>\$ 31,284,791</b>	<b>\$ 3,959,164</b>	<b>14.5%</b>
<b>Total Budget</b>	<b>\$ 79,854,655</b>	<b>\$ 83,417,476</b>	<b>\$ 3,562,821</b>	<b>4.5%</b>

\*Includes key technology application costs, including Align, CORES, and data management tool enhancements.

The primary areas of increase are in E-ISAC, Reliability Standards, and Personnel Certification. The E-ISAC increase reflects the additional staff related to the E-ISAC long-term strategy discussed above. Also as discussed above, the increases in Reliability Standards and Personnel Certification are a result of the department and position reorganization and the movement of the CE program, respectively.

The decrease in CMEP is the result of the reduction or reallocation of FTEs to other program areas, which also results in lower allocations of indirect costs and fixed assets from Administrative Services to the CMEP departments. Similarly, the decrease in Event Analysis is due to the reallocation of FTEs as a result of the reorganization, and the Training and Education decrease reflects the movement of the CE program to Personnel Certification.

The following table presents a 2020 versus 2019 comparison of budgeted FTEs by department and reflects 2020 personnel additions, interdepartmental transfers of previously budgeted positions, 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 (less than full schedule) or during a portion of the year, converted to a full-time basis. Headcount represents the total number of personnel employed at any point in time. NERC's 2020 personnel budget is based upon a targeted headcount, associated compensation and benefit costs, and an assumed vacancy rate. The vacancy rate accounts for attrition and for variations from the budget assumptions on the timing of new hires.



## 2020 versus 2019 FTEs by Department

FTEs*	2019 Budget	2020 Budget	Increase(Decrease)	
Reliability Standards	14.57	17.86	3.29	22.6%
CMEP	39.01	33.84	(5.17)	-13.3%
RAPA	25.38	23.50	(1.88)	-7.4%
Event Analysis	11.28	9.40	(1.88)	-16.7%
Situation Awareness	5.64	5.64	-	0.0%
Personnel Certification	1.88	2.82	0.94	50.0%
Training and Education	1.88	1.88	-	0.0%
Administrative Programs	67.68	74.26	6.58	9.7%
<b>NERC FTEs, excluding E-ISAC</b>	<b>167.32</b>	<b>169.20</b>	<b>1.88</b>	<b>1.1%</b>
E-ISAC (non-CRISP)	33.84	41.36	7.52	22.2%
E-ISAC (CRISP)	3.76	2.82	(0.94)	-25.0%
<b>Total E-ISAC FTEs</b>	<b>37.60</b>	<b>44.18</b>	<b>6.58</b>	<b>17.5%</b>
<b>Total FTEs</b>	<b>204.92</b>	<b>213.38</b>	<b>8.46</b>	<b>4.1%</b>

*\*Reflects 2020 additions and transfers between departments, anticipated timing of 2020 hires, and assumes 6% attrition in all programs*

The Administrative Programs encompass a number of necessary support functions, including Information Technology, Legal and Regulatory, Finance and Accounting, and Human Resources and Administration. It also includes General and Administrative functions, which include the CEO, the Chief Reliability Officer (CRO), and their support staff, as well as Policy & External Affairs staff. For FERC and external reporting purposes, these programs are allocated as indirect expenses to the operating areas on a per FTE basis. For 2020, NERC is budgeting an increase of 10 positions in support of the E-ISAC long-term strategy, which includes 7 positions in the E-ISAC and 3 in Administrative Programs. NERC is also budgeting for an increase of an additional 2 positions in Administrative Programs resulting from contractor conversions (increase in personnel costs and reduction in consultants and contracts expenses, with a slight savings) for critical roles related to the Align application and audio video and facility security coordination. There will also be a decrease of 3 open positions in the remaining NERC departments. This results in a total net increase of 9 positions (8.46 FTEs after application of the 6% attrition factor) in 2020. The table above reflects the addition, reduction, and reallocations of staff. Currently, the proposed eliminations of 3 open positions are in the Compliance Assurance department. Overall resource allocations are subject to continual strategic evaluation.

The 2020 organizational chart can be found in Appendix 1. The difference between the number of positions reflected and total FTEs is due to assumptions regarding vacancy rates and timing of new hires.

## Reserves

NERC is proposing an overall reserve budget of \$8.8M across all categories of reserves. This represents a decrease of \$247k (2.9%) from the total reserve amounts included in NERC's 2019 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 \$1.6M for 2020.
- **System Operator Certification Reserve** – Includes surplus funding from operator certification and testing fees that are above incurred expenses and shall be used solely to support operator testing and certification needs. The 2020 System Operator Certification Reserve is budgeted at \$442k and 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 \$500k in the 2020 budget.
- **Operating Contingency Reserve** – Includes both general working capital funds resulting from day to day operations, and additional funds for contingencies that were not anticipated. NERC's current policy on Operating Contingency Reserves requires a reserve target of 3.5–7.0%, except as otherwise approved by the Board after review and recommendation by the Board 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 proposing to use \$650k of the Operating Contingency Reserve for funding for the 2020 budget, resulting in an assumed Operating Contingency Reserve of approximately \$4.7M, which is 6.5% of total budgeted operating and fixed asset (capital) costs.
- **Assessment Stabilization Reserve** – To date, this reserve has been funded entirely by previously received penalties and is projected to have a balance of \$1.5M as of January 1, 2020. For the 12 months ended June 30, 2019, NERC collected no penalties. For purposes of the company's 2020 BP&B, NERC is not currently proposing any release of Assessment Stabilization Reserve funds to offset U.S. assessments. The Assessment Stabilization Reserve will be used to reduce U.S. assessments in one or more future periods in the applicable year's BP&B, subject to review and approval by the Board and FERC.

The following table is a statement of activities and fixed asset expenditures comparing the 2019 budget, 2019 projection, and 2020 budget.

Introduction and Executive Summary

Statement of Activities and Fixed Asset Additions 2019 and 2020 Budgets

STATUTORY

	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)	% Inc 2020 over 2019
<b>Funding</b>						
<b>ERO Funding</b>						
NERC Assessments	\$ 68,883,995	\$ 68,883,995	\$ -	\$ 72,011,373	\$ 3,127,378	4.5%
Assessment Stabilization Reserve - Penalties	550,000	550,000	-	-	(550,000)	
<b>Total NERC Funding</b>	<b>\$ 69,433,995</b>	<b>\$ 69,433,995</b>	<b>\$ -</b>	<b>\$ 72,011,373</b>	<b>\$ 2,577,378</b>	
Third-Party Funding (CRISP)	\$ 7,486,353	\$ 7,338,907	\$ (147,446)	\$ 7,814,577	\$ 328,224	
Testing Fees	1,790,000	1,715,000	(75,000)	1,735,000	(55,000)	
Services & Software	40,000	40,000	-	60,000	20,000	
Miscellaneous	-	260	260	-	-	
Interest & Investment Income	185,000	544,854	359,854	386,000	201,000	
<b>Total Funding (A)</b>	<b>\$ 78,935,349</b>	<b>\$ 79,073,016</b>	<b>\$ 137,668</b>	<b>\$ 82,006,951</b>	<b>\$ 3,071,602</b>	<b>3.9%</b>
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 33,810,276	\$ 34,326,066	\$ 515,790	\$ 35,462,611	\$ 1,652,335	
Payroll Taxes	2,044,880	1,978,045	(66,835)	2,113,486	68,606	
Benefits	4,673,208	4,839,986	166,779	5,420,461	747,254	
Retirement Costs	3,423,826	3,245,187	(178,639)	3,601,601	177,776	
<b>Total Personnel Expenses</b>	<b>\$ 43,952,190</b>	<b>\$ 44,389,285</b>	<b>\$ 437,095</b>	<b>\$ 46,598,160</b>	<b>\$ 2,645,970</b>	<b>6.0%</b>
<b>Meeting Expenses</b>	\$ -					
Meetings & Conference Calls	\$ 1,001,400	\$ 1,180,636	\$ 179,236	\$ 1,112,250	\$ 110,850	
Travel	2,184,000	2,252,414	68,414	2,211,000	27,000	
<b>Total Meeting Expenses</b>	<b>\$ 3,185,400</b>	<b>\$ 3,433,050</b>	<b>\$ 247,651</b>	<b>\$ 3,323,250</b>	<b>\$ 137,850</b>	<b>4.3%</b>
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 15,043,318	\$ 15,579,153	\$ 535,835	\$ 12,435,902	\$ (2,607,416)	
Office Rent	3,335,058	3,305,058	(30,000)	3,450,468	115,410	
Office Costs	6,506,917	6,921,753	414,835	10,052,374	3,545,456	
Professional Services	2,757,600	2,666,131	(91,469)	2,511,600	(246,000)	
Miscellaneous	82,000	108,993	26,993	82,750	750	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 27,724,893</b>	<b>\$ 28,581,088</b>	<b>\$ 856,195</b>	<b>\$ 28,533,094</b>	<b>\$ 808,200</b>	<b>2.9%</b>
<b>Total Direct Expenses</b>	<b>\$ 74,862,484</b>	<b>\$ 76,403,424</b>	<b>\$ 1,540,940</b>	<b>\$ 78,454,504</b>	<b>\$ 3,592,020</b>	<b>4.8%</b>
<b>Indirect Expenses</b>	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Other Non-Operating Expenses</b>	<b>\$ 214,171</b>	<b>\$ 139,971</b>	<b>\$ (74,200)</b>	<b>\$ 256,623</b>	<b>\$ 42,452</b>	<b>19.8%</b>
<b>Total Expenses (B)</b>	<b>\$ 75,076,655</b>	<b>\$ 76,543,395</b>	<b>\$ 1,466,740</b>	<b>\$ 78,711,127</b>	<b>\$ 3,634,472</b>	<b>4.8%</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 3,858,694</b>	<b>\$ 2,529,622</b>	<b>\$ (1,329,072)</b>	<b>\$ 3,295,824</b>	<b>\$ (562,870)</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 4,778,000</b>	<b>\$ 3,847,990</b>	<b>\$ (930,010)</b>	<b>\$ 4,706,349</b>	<b>\$ (71,651)</b>	<b>-1.5%</b>
<b>Total Budget (=B+C)</b>	<b>\$ 79,854,655</b>	<b>\$ 80,391,385</b>	<b>\$ 536,730</b>	<b>\$ 83,417,476</b>	<b>\$ 3,562,821</b>	<b>4.5%</b>
<b>Change in Working Capital (=A-B-C)*</b>	<b>\$ (919,306)</b>	<b>\$ (1,318,368)</b>	<b>\$ (399,063)</b>	<b>\$ (1,410,525)</b>	<b>\$ (491,219)</b>	
<b>FTEs</b>	<b>204.92</b>	<b>202.16</b>	<b>(2.76)</b>	<b>213.38</b>	<b>8.46</b>	<b>4.1%</b>

\* Refer to Table B-1 for a complete analysis of the Working Capital and Operating Reserve balance.

As mentioned previously, one of the changes to the Statement of Activities and Fixed Asset Expenditures report is related to providing enhanced transparency of financing activity (e.g., debt borrowing, leased-financed asset purchases, and principal payments). As discussed above, NERC has a capital financing program for major software development projects that benefit the ERO Enterprise. Additionally, NERC has a lease program for certain IT equipment.

Financing activity affects cash flow and annual assessments, which is shown as part of the Operating Reserve and Assessment Analysis (see Table B-1). Beginning in 2020, NERC will report financing activity in a new section on the Statement of Activities and Fixed Asset Expenditures report, which allows for a total budget that more closely reflects the amount of annual revenues required from assessments. This section and its effects are shown below for the 2020 budget; variance reporting for 2020 and future budgeting will be shown in this format.

## Statement of Activities and Fixed Asset Additions 2020 Budget

## STATUTORY

	2020 Budget
<b>Funding</b>	
<b>ERO Funding</b>	
NERC Assessments	\$ 72,011,373
Assessment Stabilization Reserve - Penalties	-
<b>Total NERC Funding</b>	<u>\$ 72,011,373</u>
Third-Party Funding (CRISP)	\$ 7,814,577
Testing Fees	1,735,000
Services & Software	60,000
Miscellaneous	-
Interest & Investment Income	386,000
<b>Total Funding (A)</b>	<u>\$ 82,006,951</u>
<b>Expenses</b>	
<b>Personnel Expenses</b>	
Salaries	\$ 35,462,611
Payroll Taxes	2,113,486
Benefits	5,420,461
Retirement Costs	3,601,601
<b>Total Personnel Expenses</b>	<u>\$ 46,598,160</u>
<b>Meeting Expenses</b>	
Meetings & Conference Calls	\$ 1,112,250
Travel	2,211,000
<b>Total Meeting Expenses</b>	<u>\$ 3,323,250</u>
<b>Operating Expenses, excluding Depreciation</b>	
Consultants & Contracts	\$ 12,435,902
Office Rent	3,450,468
Office Costs	9,102,374
Professional Services	2,511,600
Miscellaneous	82,750
<b>Total Operating Expenses, excluding Depreciation</b>	<u>\$ 27,583,094</u>
<b>Total Direct Expenses</b>	<u>\$ 77,504,504</u>
<b>Indirect Expenses</b>	<u>\$ -</u>
<b>Other Non-Operating Expenses</b>	<u>\$ 306,623</u>
<b>Total Expenses (B)</b>	<u>\$ 77,811,127</u>
<b>Change in Net Assets (=A-B)</b>	<u>\$ 4,195,824</u>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<u>\$ 4,706,349</u>
<b>Financing Activity</b>	
Loan or Financing Lease - Borrowing (-)	\$ (1,338,000)
Loan or Financing Lease - Principal Payments (+)	1,477,558
<b>Net Financing Activity (D)</b>	<u>\$ 139,558</u>
<b>Total Budget (=B+C+D)</b>	<u>\$ 82,657,034</u>
<b>Change in Working Capital (=A-B-C-D)</b>	<u>\$ (650,083)</u>
<b>FTEs</b>	<b>213.38</b>

## Projections for 2021–2022

Management is currently developing preliminary operating and fixed asset projections for 2021 and 2022. Significant assumptions considered in preparing these projections include:

- No increase in total FTEs over the 2020 budget, except for E-ISAC long-term strategy impacts;
- Personnel and benefit cost increases are consistent with 2020 assumptions;
- Meeting and travel costs are reduced due to anticipated savings from more onsite meetings as a result of Atlanta office modifications;
- Fixed asset expenditures are decreasing due to the completion of the development of the Align and CORES applications; savings for application costs (i.e., software licenses, maintenance, and support) will be realized in future Regional Entity budgets as they transition from their legacy CMEP systems to the centralized tools;
- There will be continued investment in enhancements to and maintenance of the suite of data management tools to support advanced analytics;
- Debt service repayment obligations in connection with the company’s Capital Financing Program are consistent with the projected IT applications capital forecast; and
- E-ISAC budget increases in 2021 and 2022 will represent the vast majority of projected increases in the total NERC budget. The current budget projections for E-ISAC, including CRISP, for 2021 and 2022 are \$34.6M and \$37.4M, respectively. These increased budget projections are primarily driven by planned headcount additions and strategic program initiatives.

Currently, NERC projects a total budget increase versus the prior year of 4.5% in 2020, 2.8% in 2021, and 4.0% in 2022. Assessments are budgeted to increase 4.5% in 2020 and projected to increase 5.6% in 2021 and 5.9% in 2022, excluding any release of Assessment Stabilization Reserve funds. The assessment increase for 2020 does not include any proposed release from the Assessment Stabilization Reserve. The budget and assessment increases for 2020 and 2021 are projections that will be refined as those budgets are finalized.

## Introduction and Executive Summary

### Statement of Activities and Fixed Asset Additions 2020 Budget & Projected 2021 and 2022 Budgets

	2020 Budget	2021 Projection	\$ Change 21 vs 20	% Change 21 vs 20	2022 Projection	\$ Change 22 vs 21	% Change 22 vs 21
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 72,011,373	\$ 76,048,625	\$ 4,037,251	5.6%	\$ 80,562,249	\$ 4,513,624	5.9%
Assessment Stabilization Reserve - Penalties	-	-	-	0.0%	-	-	0.0%
<b>Total NERC Funding</b>	<b>\$ 72,011,373</b>	<b>\$ 76,048,625</b>	<b>\$ 4,037,251</b>	<b>5.6%</b>	<b>\$ 80,562,249</b>	<b>\$ 4,513,624</b>	<b>5.9%</b>
Third-Party Funding	\$ 7,814,577	\$ 7,847,311	\$ 32,734	0.4%	\$ 8,059,943	\$ 212,632	2.7%
Testing Fees	1,735,000	1,735,000	-	0.0%	1,735,000	-	0.0%
Services & Software	60,000	60,000	-	0.0%	60,000	-	0.0%
Miscellaneous	-	-	-	0.0%	-	-	0.0%
Interest & Investment Income	386,000	386,000	-	0.0%	386,000	-	0.0%
<b>Total Funding (A)</b>	<b>\$ 82,006,951</b>	<b>\$ 86,076,936</b>	<b>\$ 4,069,985</b>	<b>5.0%</b>	<b>\$ 90,803,192</b>	<b>\$ 4,726,256</b>	<b>5.5%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 35,462,611	\$ 37,771,413	\$ 2,308,802	6.5%	\$ 40,122,984	\$ 2,351,571	6.2%
Payroll Taxes	2,113,486	2,219,024	105,538	5.0%	2,324,317	105,293	4.7%
Benefits	5,420,461	6,116,708	696,247	12.8%	6,832,331	715,623	11.7%
Retirement Costs	3,601,601	3,842,989	241,388	6.7%	4,088,796	245,806	6.4%
<b>Total Personnel Expenses</b>	<b>\$ 46,598,160</b>	<b>\$ 49,950,135</b>	<b>\$ 3,351,975</b>	<b>7.2%</b>	<b>\$ 53,368,428</b>	<b>\$ 3,418,293</b>	<b>6.8%</b>
<b>Meeting Expenses</b>							
Meetings & Conference Calls	\$ 1,112,250	\$ 1,015,950	\$ (96,300)	-8.7%	\$ 1,015,950	\$ -	0.0%
Travel	2,211,000	2,186,000	(25,000)	-1.1%	2,186,000	-	0.0%
<b>Total Meeting Expenses</b>	<b>\$ 3,323,250</b>	<b>\$ 3,201,950</b>	<b>\$ (121,300)</b>	<b>-3.7%</b>	<b>\$ 3,201,950</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Operating Expenses, excluding Depreciation</b>							
Consultants & Contracts	\$ 12,435,902	\$ 12,494,816	\$ 58,914	0.5%	\$ 12,486,108	\$ (8,708)	-0.1%
Office Rent	3,450,468	3,551,445	100,977	2.9%	3,742,205	190,760	5.4%
Office Costs	10,052,374	10,381,480	329,106	3.3%	10,606,350	224,870	2.2%
Professional Services	2,511,600	2,477,221	(34,379)	-1.4%	2,456,600	(20,621)	-0.8%
Miscellaneous	82,750	82,750	-	0.0%	82,750	-	0.0%
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 28,533,094</b>	<b>\$ 28,987,712</b>	<b>\$ 454,618</b>	<b>1.6%</b>	<b>\$ 29,374,013</b>	<b>\$ 386,301</b>	<b>1.3%</b>
<b>Total Direct Expenses</b>	<b>\$ 78,454,504</b>	<b>\$ 82,139,796</b>	<b>\$ 3,685,293</b>	<b>4.7%</b>	<b>\$ 85,944,391</b>	<b>\$ 3,804,594</b>	<b>4.6%</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Other Non-Operating Expenses</b>	<b>\$ 256,623</b>	<b>\$ 345,667</b>	<b>\$ 89,044</b>	<b>34.7%</b>	<b>\$ 337,641</b>	<b>\$ (8,026)</b>	<b>-2.3%</b>
<b>Total Expenses (B)</b>	<b>\$ 78,711,127</b>	<b>\$ 82,485,463</b>	<b>\$ 3,774,337</b>	<b>4.8%</b>	<b>\$ 86,282,032</b>	<b>\$ 3,796,568</b>	<b>4.6%</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 3,295,824</b>	<b>\$ 3,591,472</b>	<b>\$ 295,648</b>	<b>9.0%</b>	<b>\$ 4,521,160</b>	<b>\$ 929,688</b>	<b>25.9%</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 4,706,349</b>	<b>\$ 3,274,349</b>	<b>\$ (1,432,000)</b>	<b>-30.4%</b>	<b>\$ 2,874,349</b>	<b>\$ (400,000)</b>	<b>-12.2%</b>
<b>Total Budget (=B+C)</b>	<b>\$ 83,417,476</b>	<b>\$ 85,759,813</b>	<b>\$ 2,342,337</b>	<b>2.8%</b>	<b>\$ 89,156,381</b>	<b>\$ 3,396,568</b>	<b>4.0%</b>
FTEs	213.38	220.90	7.52	3.5%	228.42	7.52	3.4%

## Section A – 2020 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. Two groups in this department are focused specifically on the development and improvement of Reliability Standards: the Reliability Standards group and the Power Risk Issues and Strategic Management (PRISM) group.

Reliability Standards and Power Risk Issue Strategic Management (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	14.57	17.86	3.29
Direct Expenses	\$ 3,059,581	\$ 3,865,292	\$ 805,710
Indirect Expenses	3,208,828	4,206,476	997,648
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	407,669	177,804	(229,864)
TOTAL BUDGET	\$ 6,676,078	\$ 8,249,572	\$ 1,573,494

#### 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 BES is planned, operated, maintained, and secured to minimize risks of cascading failures, avoid damage to major equipment, or limit interruptions of the 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 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 gauges the responses to address reliability risks and works towards 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, 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 Planning Committee (PC), Operating Committee (OC), Critical Infrastructure Protection Committee (CIPC), the Standards Committee, and their subcommittees. 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 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 efficient.

### **Tools and Technology**

The main tool used by the Reliability Standards program is NERC's Standards Balloting and Commenting System (SBS). 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.

### **Key Efforts Underway**

NERC ensures that the Reliability Standards Development Plan (RSDP) is effectively executed and that Reliability Standards are focused on and mitigate significant risks to BES reliability. 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 reliability risk may be a Reliability Standard, or it may be 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** 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. 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 Regional Entities to develop guidelines, webinars, and other activities to support auditor and industry training for new standards.



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 Battery Storage;
- Developing statistical analysis around misoperations data to identify trends and discrete areas for improvement;
- Developing statistical analysis around BAL standards and the effects of frequency response within the four interconnections; and
- Conducting Reliability Standards training for NERC staff to enable consistent understandings.

### **2020 Goals and Deliverables**

In 2020, 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 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 Reliability Standard training efforts for NERC staff, expand analysis for the efficacy of standards and emerging technologies affecting the BPS, and coordinate with the RISC on alignment of identified risks and mitigating activities.

### **Future Plans**

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, and restoration, and systemic risks from interdependencies among gas, electric, and communications systems. NERC has access to increasing amounts of data that must be leveraged to quantitatively determine the efficacy of standards with respect to these emerging risks, and must 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 3.29 increase in FTEs from the 2019 budget to the 2020 budget is a result of the department and position reorganization discussed in the *Introduction and Executive Summary*.

#### **Consultants and Contracts**

The \$40k for Consultants and Contracts expenses in 2020 is for SBS maintenance and enhancements. A detailed breakdown of 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contractor Costs*.

Section A – 2020 Business Plan and Budget Program Area and Department Detail

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>RELIABILITY STANDARDS AND POWER RISK ISSUE STRATEGIC MANAGEMENT</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 6,598,401	\$ 6,598,401	\$ -	\$ 8,203,710	\$ 1,605,309
Assessment Stabilization Reserve - Penalties	\$ 58,793	58,793	-	-	(58,793)
<b>Total NERC Funding</b>	<b>\$ 6,657,194</b>	<b>\$ 6,657,194</b>	<b>\$ -</b>	<b>\$ 8,203,710</b>	<b>\$ 1,546,516</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	18,884	58,805	39,921	45,862	26,978
<b>Total Funding (A)</b>	<b>\$ 6,676,078</b>	<b>\$ 6,715,999</b>	<b>\$ 39,921</b>	<b>\$ 8,249,572</b>	<b>\$ 1,573,494</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 2,031,580	\$ 2,392,427	\$ 360,847	\$ 2,622,756	\$ 591,176
Payroll Taxes	134,348	143,283	8,935	165,506	31,158
Benefits	297,782	326,946	29,164	416,307	118,525
Retirement Costs	224,171	249,568	25,397	290,052	65,881
<b>Total Personnel Expenses</b>	<b>\$ 2,687,881</b>	<b>\$ 3,112,223</b>	<b>\$ 424,342</b>	<b>\$ 3,494,622</b>	<b>\$ 806,740</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 63,000	\$ 49,903	\$ (13,097)	\$ 59,800	\$ (3,200)
Travel	220,000	220,000	-	220,000	-
<b>Total Meeting Expenses</b>	<b>\$ 283,000</b>	<b>\$ 269,903</b>	<b>\$ (13,097)</b>	<b>\$ 279,800</b>	<b>\$ (3,200)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 50,000	\$ 50,000	\$ -	\$ 40,320	\$ (9,680)
Office Rent	-	-	-	-	-
Office Costs	38,200	45,700	7,500	50,050	11,850
Professional Services	-	-	-	-	-
Miscellaneous	500	2,000	1,500	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 88,700</b>	<b>\$ 97,700</b>	<b>\$ 9,000</b>	<b>\$ 90,870</b>	<b>\$ 2,170</b>
<b>Total Direct Expenses</b>	<b>\$ 3,059,581</b>	<b>\$ 3,479,827</b>	<b>\$ 420,245</b>	<b>\$ 3,865,292</b>	<b>\$ 805,710</b>
<b>Indirect Expenses</b>	<b>\$ 3,208,828</b>	<b>\$ 3,950,525</b>	<b>\$ 741,697</b>	<b>\$ 4,206,476</b>	<b>\$ 997,648</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 6,268,409</b>	<b>\$ 7,430,352</b>	<b>\$ 1,161,942</b>	<b>\$ 8,071,768</b>	<b>\$ 1,803,359</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 407,669</b>	<b>\$ (714,353)</b>	<b>\$ (1,122,022)</b>	<b>\$ 177,804</b>	<b>\$ (229,864)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 407,669</b>	<b>\$ 384,235</b>	<b>\$ (23,434)</b>	<b>\$ 177,804</b>	<b>\$ (229,864)</b>
<b>Total Budget (=B+C)</b>	<b>\$ 6,676,078</b>	<b>\$ 7,814,586</b>	<b>\$ 1,138,509</b>	<b>\$ 8,249,572</b>	<b>\$ 1,573,494</b>
<b>FTEs</b>	<b>14.57</b>	<b>16.56</b>	<b>1.99</b>	<b>17.86</b>	<b>3.29</b>

## Compliance Assurance and Organization Registration and Certification

Compliance Assurance and Organization Registration and Certification (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	25.85	21.62	(4.23)
Direct Expenses	\$ 6,576,310	\$ 5,881,314	\$ (694,996)
Indirect Expenses	5,693,082	5,092,050	(601,031)
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	1,675,025	1,318,736	(356,288)
<b>TOTAL BUDGET</b>	<b>\$ 13,944,416</b>	<b>\$ 12,292,101</b>	<b>\$ (1,652,315)</b>

### Background and Scope

#### Compliance Assurance

NERC's Compliance Assurance group works collaboratively with the Regional Entities to ensure effective implementation of risk-based compliance monitoring under the CMEP across the entire ERO Enterprise. This program ensures that Regional Entities 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.

The CMEP provides for Regional Entities to develop customized compliance oversight plans (COPs) for each registered entity that identify: (1) the standards or requirements to be monitored; (2) the monitoring processes (tools) to be used by the Regional Entities, including compliance audits, self-certification, and spot checking; and (3) the interval of monitoring. NERC and the Regional Entities ensure that inherent risk assessments (IRAs) for registered entities begin with a consistent framework and that Regional Entities' implementation of the CMEP coalesce around effective and efficient practices, ensuring comprehensive data management procedures that address data reporting requirements, integrity, retention, security, and confidentiality.

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

- Oversight of the Regional Entities' implementation of the risk-based compliance monitoring program and NERC 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 Critical Infrastructure Protection (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 Regional Entity and industry committees, working groups, and task forces, such as the ERO Compliance Monitoring Group (NERC and Regional Entity collaboration group), NERC Compliance and Certification Committee (CCC), and NERC CIPC.

### **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 RC, BA, or 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 Regional Entities and NERC. Together, the Registration and Certification groups manage the Organization Registration and Certification Program (ORCP).

### **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 Implementation 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 Regional Entity and NERC workshops, such as the annual NERC Standards and Compliance Workshop.

Registration and Certification engages with the CCC's Organization Registration and Certification Subcommittee (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 Regional Entity 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 Regional Entities to evaluate and implement strategic investments in tools that will replace CRATS and the CMEP and Registration data applications used among the Regional Entities with single, common applications, known as the Align for CMEP and CORES for Registration. CORES is set to be released by the end of 2019, and 2020 is the final development year for Align. Funding for support of the CRATS application in 2020 and beyond, at reduced levels, will be required for historical 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. There will be a release in the fall of 2019 that will support self-reporting, self-logging, enforcement, and mitigation. There will be two more releases in 2020, the final development year, which will support Compliance Assurance activities. For more information, see the [Align Project](#) page on the NERC website.

CORES similarly creates consistent Regional Entity 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 is scheduled by the end of 2019, with further enhancements planned for 2020. For more information, see the [CORES Technology Project](#) page on the NERC website.

The BES Notification and Exception System tool (BESnet) is also used in support of the Registration group's activities. The BESnet application allows registered entities to submit to their respective Regional Entity notifications of changes to BES assets that affect the registered entity's responsibilities for compliance with the Reliability Standards.

### **Key Efforts Underway**

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 Regional Entities. As part of that oversight, and in addition to offering regular feedback to the Regional Entities, NERC continues to identify areas for improvement or promoting consistency through training, guidance, or adjustments. NERC also produces an ERO Enterprise CMEP annual report, which includes an assessment of the risk-based CMEP implementation.

#### **CIP Compliance**

NERC and the Regional Entities continue to manage the smooth implementation of compliance activities for CIP Version 5 Reliability and Physical Security Standards, along with their subsequent enhancements by providing training, webinars, and other forms of outreach. The ERO Enterprise continues to provide educational programs to support industry compliance and the integration of risk assessment and internal controls.

#### **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 Project**

The development of the Align tool discussed above required NERC and the Regional Entities to coordinate heavily in 2018 and 2019 to harmonize several aspects of CMEP activities, improving overall program execution and alignment.

### **Regional Entity Training**

Compliance Assurance provides training to Regional Entity staff on the most important elements of risk-based compliance monitoring, including enhancements to registered entity IRAs, internal controls reviews, COP development, as well as Reliability Standards monitoring. NERC develops this training based on observations from its oversight activities of the Regional Entities, 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. In 2019, the focus of the SGAS activities was related to supporting implementation of the Cyber Security Supply Chain Risk Management Reliability Standard.

### **Compliance Enforcement Authority for Southwest Power Pool Regional Transmission Organization**

As a result of the Southwest Power Pool Regional Entity (SPP RE) dissolution process, in early 2018 NERC assumed the Compliance Enforcement Authority (CEA) activities for the registered entity SPP Regional Transmission Organization (RTO) for two years. This is the role that is generally delegated by NERC to a Regional Entity. Essentially the CEA is responsible for planning and conducting all CMEP activities as described in the ROP and other guiding documents. NERC leverages existing internal and Regional Entity resources and expertise to undertake the CEA activities with respect to the SPP RTO. NERC also uses its CEA activities to inform program alignment.

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

- Transition of SPP RE registered entities to MRO and SERC, and transition of FRCC RE registered entities to SERC with respect to the dissolution of FRCC RE;<sup>9</sup>
- Completion of an ERO Practice Guide on Distribution Provider “Directly Connected” Determinations;
- Peak Reliability wind-down activities, including but not limited to, continuity of RC functionality, operational readiness of infrastructure and readiness of personnel, compatibility of RC methodologies, continuity of west-wide tools, seams management, and data sharing;
- Development and launch of CORES, discussed above, including continued focus on functionality for Coordinated Functional Registrations (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.

### **2020 Goals and Deliverables**

In 2020, Compliance Assurance resources will focus on improvements implemented as a result of the risk-based compliance monitoring activities in 2017, 2018, and 2019. Specific objectives for this group are:

- 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.

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<sup>9</sup> [Letter Order Approving the Joint Petition Requesting Certain Approvals in connection with the Dissolution of FRCC](#), Docket No. RR19-4-000, 167 FERC ¶ 61,095 (2019)

- Work closely with NERC’s Enforcement and IT departments, as well as staff in the Regional Entities, to implement the Align tool.
- 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 Standard.
- 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.
- 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.
- Complete the NERC CEA program for SPP RTO until planned transition to MRO in 2020.

The Registration and Certification group will continue the ongoing activities described above as applicable. With CORES fully deployed, there will be an opportunity in 2020 and beyond to explore how the ERO IT platforms can further enhance work products, communication, and data tracking and reporting.

### **Future Plans**

For 2021 and 2022, NERC anticipates full implementation of the Align tool, providing significant impetus for continued harmonization of CMEP processes across the ERO Enterprise and enhanced CMEP workflow management. Additionally, the Align implementation, along with continued coordination among NERC and the Regional Entities, should result in significant maturation of risk-based CMEP processes, particularly in realizing enhanced development and use of COPs to support CMEP planning activities.

### **Resource Requirements**

#### **Personnel**

In prior years, personnel increased in the Compliance Assurance area through the reallocation of resources from other departments as part of ERO Enterprise efforts to strengthen the implementation and oversight of the risk-based CMEP, increase risk analysis capabilities and technical expertise, and support feedback loops that improve program oversight and the development of Reliability Standards. As the risk-based CMEP program has matured, NERC has reduced personnel in this area accordingly through the reallocation of resources or elimination of open positions. The decrease of 4.23 FTEs in the 2020 budget is a result of this continued effort to realign staff with current strategic needs. There have been no changes to FTEs for Registration and Certification.

#### **Consultants and Contracts**

The increase of approximately \$40k for Consultants and Contracts in the 2020 budget is the result of a reclassification of support costs for BESnet from the IT department to the Registration and Certification area. A detailed breakdown of the 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contractor Costs*.

**Other Costs**

The \$77k increase in Office Costs expenses in the 2020 budget is primarily related to the contracted cost for software licensing, maintenance, and hosting expenses for Align, for which the total annual cost is split evenly with Compliance Enforcement. The Fixed Asset budget includes approximately \$904k for the last year of development of Align (for which the total expenditure for 2020 is approximately \$1.8M, split evenly between Compliance Assurance and Compliance Enforcement), and \$200k for planned enhancements for CORES.

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>COMPLIANCE ASSURANCE, REGISTRATION, AND CERTIFICATION</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 13,806,602	\$ 13,806,602	\$ -	\$ 12,236,583	\$ (1,570,019)
Assessment Stabilization Reserve - Penalties	104,310	104,310	-	-	(104,310)
<b>Total NERC Funding</b>	<b>\$ 13,910,912</b>	<b>\$ 13,910,912</b>	<b>\$ -</b>	<b>\$ 12,236,583</b>	<b>\$ (1,674,329)</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	33,504	88,866	55,363	55,517	22,014
<b>Total Funding (A)</b>	<b>\$ 13,944,416</b>	<b>\$ 13,999,779</b>	<b>\$ 55,363</b>	<b>\$ 12,292,101</b>	<b>\$ (1,652,315)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,123,449	\$ 4,354,497	\$ 231,048	\$ 3,646,298	\$ (477,151)
Payroll Taxes	265,782	249,950	(15,832)	222,053	(43,729)
Benefits	674,062	711,896	37,834	686,630	12,568
Retirement Costs	456,866	440,021	(16,845)	404,705	(52,161)
<b>Total Personnel Expenses</b>	<b>\$ 5,520,160</b>	<b>\$ 5,756,364</b>	<b>\$ 236,205</b>	<b>\$ 4,959,686</b>	<b>\$ (560,474)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 215,650	\$ 211,953	\$ (3,697)	\$ 89,200	\$ (126,450)
Travel	525,500	400,442	(125,058)	400,000	(125,500)
<b>Total Meeting Expenses</b>	<b>\$ 741,150</b>	<b>\$ 612,395</b>	<b>\$ (128,755)</b>	<b>\$ 489,200</b>	<b>\$ (251,950)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 50,000	\$ 50,000	\$ -	\$ 90,320	\$ 40,320
Office Rent	-	-	-	-	-
Office Costs	264,000	264,000	-	341,358	77,358
Professional Services	-	6,631	6,631	-	-
Miscellaneous	1,000	4,662	3,662	750	(250)
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 315,000</b>	<b>\$ 325,294</b>	<b>\$ 10,294</b>	<b>\$ 432,428</b>	<b>\$ 117,428</b>
<b>Total Direct Expenses</b>	<b>\$ 6,576,310</b>	<b>\$ 6,694,053</b>	<b>\$ 117,744</b>	<b>\$ 5,881,314</b>	<b>\$ (694,996)</b>
<b>Indirect Expenses</b>	<b>\$ 5,693,082</b>	<b>\$ 6,076,079</b>	<b>\$ 382,998</b>	<b>\$ 5,092,050</b>	<b>\$ (601,031)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 12,269,391</b>	<b>\$ 12,770,132</b>	<b>\$ 500,741</b>	<b>\$ 10,973,364</b>	<b>\$ (1,296,027)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 1,675,025</b>	<b>\$ 1,229,646</b>	<b>\$ (445,379)</b>	<b>\$ 1,318,736</b>	<b>\$ (356,288)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 1,675,025</b>	<b>\$ 1,670,457</b>	<b>\$ (4,568)</b>	<b>\$ 1,318,736</b>	<b>\$ (356,288)</b>
<b>Total Budget (=B+C)</b>	<b>\$ 13,944,416</b>	<b>\$ 14,440,589</b>	<b>\$ 496,173</b>	<b>\$ 12,292,101</b>	<b>\$ (1,652,315)</b>
<b>FTEs</b>	<b>25.85</b>	<b>25.47</b>	<b>(0.38)</b>	<b>21.62</b>	<b>(4.23)</b>



## Compliance Enforcement

<b>Compliance Enforcement</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	13.16	12.22	(0.94)
Direct Expenses	\$ 2,977,690	\$ 2,822,301	\$ (155,389)
Indirect Expenses	2,898,296	2,878,115	(20,181)
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	981,249	1,025,155	43,906
<b>TOTAL BUDGET</b>	<b>\$ 6,857,235</b>	<b>\$ 6,725,572</b>	<b>\$ (131,663)</b>

### 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 Regional Entities 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 Regional Entities' 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 Regional Entity 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 Regional Entity 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 required by NERC as the ERO. As discussed in the *Compliance Assurance and Organization Registration and Certification* section above, NERC has been working closely with the Regional Entities to evaluate and implement strategic investments in tools that will replace CRATS and the CMEP applications used among the Regional Entities with a single, common application known as Align. There will be a release in 2019 that will support self-reporting, self-logging, enforcement, and mitigation. There will be two more releases in 2020, the final development year, which will support Compliance Assurance. Funding for support of the CRATS application in 2020 and beyond, at reduced levels, will be required for historical purposes. For more information, see the [Align Project](#) page on the NERC website.

## Key Efforts Underway

### 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. New in 2019 is a series of webinars addressing the themes of violations in major cases.

### 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 in order to resolve minimal risk noncompliance more efficiently. Enforcement also considers modifications to the Self-Logging Program to make the program more beneficial to participants and facilitate more efficient resolution of self-logged issues.

### 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 Project

The development of the Align tool discussed above required NERC and the Regional Entities to coordinate heavily in 2018 and 2019 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 the training and education activities of the Regional Entities. These opportunities focus on identifying gaps in staff knowledge and capabilities related to the risk-based CMEP.

## 2020 Goals and Deliverables

Specific 2020 objectives for the Enforcement department include continuing to:

- Focus on identifying and mitigating the greatest risks to reliability and security.
- Support the development and implementation of the Align tool.
- Streamline minimal risk noncompliance, including Compliance Exceptions and the self-logging program.
- Align the risk assessment process and educate relevant parties.
- Mature the Coordinated Oversight program for MRREs.

## Future Plans

In 2021 and beyond, NERC and the Regional Entities will continue to conduct outreach activities that focus on self-logging, compliance exceptions, mitigation, and risk assessment of noncompliance. NERC plans to use existing industry events, such as the standards and compliance workshops and industry webinars, to provide information on enforcement activities. Enforcement will continue to identify areas for improvement and promotion of alignment through training, guidance, or other adjustments.

## Resource Requirements

### Personnel

The decrease of 0.94 FTEs in 2020 is the result of resource allocations to realign staff with current needs.

### Consultants and Contracts

The decrease of \$161k in Consultants and Contracts in the 2020 budget is a result of a reclassification of CRATS support and maintenance costs to Office Costs. A detailed breakdown of the 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contractor Costs*.

### Other Costs

The \$159k increase in Office Costs expenses in the 2020 budget is primarily related to the reclassification of CRATS support and maintenance costs from Consultants and Contracts noted above, as well as the contracted cost for software licensing, maintenance, and hosting expenses for Align, for which the total annual cost is split evenly with Compliance Assurance. The Fixed Asset budget includes approximately \$904k for the last year of development of Align (for which the total expenditure for 2020 is approximately \$1.8M, split evenly between Compliance Assurance and Compliance Enforcement).

Statement of Activities and Fixed Asset Additions					
2019 Budget & Projection, and 2020 Budget					
COMPLIANCE ENFORCEMENT					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 6,787,076	\$ 6,787,076	\$ -	\$ 6,694,193	\$ (92,883)
Assessment Stabilization Reserve - Penalties	53,103	53,103	-	-	(53,103)
<b>Total NERC Funding</b>	<b>\$ 6,840,179</b>	<b>\$ 6,840,179</b>	<b>\$ -</b>	<b>\$ 6,694,193</b>	<b>\$ (145,986)</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	17,056	45,031	27,975	31,379	14,323
<b>Total Funding (A)</b>	<b>\$ 6,857,235</b>	<b>\$ 6,885,210</b>	<b>\$ 27,975</b>	<b>\$ 6,725,572</b>	<b>\$ (131,663)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 1,991,052	\$ 1,771,998	\$ (219,053)	\$ 1,829,637	\$ (161,414)
Payroll Taxes	126,256	120,482	(5,773)	113,039	(13,217)
Benefits	198,145	211,505	13,360	230,971	32,826
Retirement Costs	218,788	193,202	(25,586)	197,746	(21,042)
<b>Total Personnel Expenses</b>	<b>\$ 2,534,240</b>	<b>\$ 2,297,188</b>	<b>\$ (237,052)</b>	<b>\$ 2,371,393</b>	<b>\$ (162,847)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 4,400	\$ 14,427	\$ 10,027	\$ 6,200	\$ 1,800
Travel	47,500	82,903	35,403	55,000	7,500
<b>Total Meeting Expenses</b>	<b>\$ 51,900</b>	<b>\$ 97,331</b>	<b>\$ 45,431</b>	<b>\$ 61,200</b>	<b>\$ 9,300</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 161,000	\$ 161,000	\$ -	\$ -	\$ (161,000)
Office Rent	-	-	-	-	-
Office Costs	230,050	230,050	-	389,208	159,158
Professional Services	-	-	-	-	-
Miscellaneous	500	3,000	2,500	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 391,550</b>	<b>\$ 394,050</b>	<b>\$ 2,500</b>	<b>\$ 389,708</b>	<b>\$ (1,842)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,977,690</b>	<b>\$ 2,788,568</b>	<b>\$ (189,122)</b>	<b>\$ 2,822,301</b>	<b>\$ (155,389)</b>
<b>Indirect Expenses</b>	<b>\$ 2,898,296</b>	<b>\$ 2,879,398</b>	<b>\$ (18,898)</b>	<b>\$ 2,878,115</b>	<b>\$ (20,181)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 5,875,986</b>	<b>\$ 5,667,967</b>	<b>\$ (208,020)</b>	<b>\$ 5,700,417</b>	<b>\$ (175,570)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 981,249</b>	<b>\$ 1,217,243</b>	<b>\$ 235,994</b>	<b>\$ 1,025,155</b>	<b>\$ 43,906</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 981,249</b>	<b>\$ 945,396</b>	<b>\$ (35,853)</b>	<b>\$ 1,025,155</b>	<b>\$ 43,906</b>
<b>Total Budget (=B+C)</b>	<b>\$ 6,857,235</b>	<b>\$ 6,613,362</b>	<b>\$ (243,873)</b>	<b>\$ 6,725,572</b>	<b>\$ (131,663)</b>
<b>FTEs</b>	<b>13.16</b>	<b>12.07</b>	<b>(1.09)</b>	<b>12.22</b>	<b>(0.94)</b>

## 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 groups between two NERC departments are focused on this program: (1) the Reliability Assessments and Technical Committees group and (2) the Performance Analysis group, which are part of the Risk Identification and Mitigation department, and (3) the Power System Analysis and (4) the Advanced System Analytics and Modeling group, which are part of the Engineering and Standards department.

<b>Reliability Assessments and Performance Analysis</b>			
(in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	25.38	23.50	(1.88)
Direct Expenses	\$ 7,455,074	6,753,513	\$ (701,561)
Indirect Expenses	5,589,571	5,534,837	(54,734)
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	187,552	833,953	646,401
<b>TOTAL BUDGET</b>	<b>\$ 13,232,197</b>	<b>\$ 13,122,303</b>	<b>\$ (109,893)</b>

### Background and Scope

#### Reliability Assessments and Technical Committees

The Reliability Assessments (RA) and Technical Committees group includes RA staff as well as the NERC staff secretaries of the OC, PC, and CIPC. 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. Additionally, RA staff publishes the annual *State of Reliability Report* that looks at the year-over-year performance indicators of the grid. 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 Regional Entity 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
- *State of Reliability Report*
- Special Reliability Assessments (selected based on high-risk issues that require an independent assessment from the ERO)

The NERC technical committees, which include the PC, OC, CIPC, and their 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 of the technical committees coordinate and administer these activities and efforts. NERC staff also coordinates the Standing Committee Coordinating Group, which organizes the leadership of each of the standing committees to address and coordinate on cross-cutting efforts.

The RA and Technical Committees group works closely with stakeholders to create assessment development schedules with adequate stakeholder review at every level. All NERC reliability assessments typically have a sponsoring technical committee, subcommittee, or other subgroup. The long-term and seasonal assessments are conducted by the PC's Reliability Assessment Subcommittee (RAS), and

ultimately endorsed by the PC. 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 Performance Analysis (PA) group monitors the performance of and identifies risks to reliability of the BPS through analyzing data from industry and measuring historic trends. As such, PA is responsible for the collection, management, and analysis of data related to the performance of five areas of BPS operations: transmission, conventional generation, wind 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 the 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* report and other analytical reports and technical papers to the industry.

### **Power System Analysis**

The Power System Analysis (PSA) group provides 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 has become particularly important as new technologies are added to the system, and significant changes in the resource mix are being both experienced and projected. The PSA group is responsible for:

- Assisting the RA and Technical Committees group in their independent reliability assessments;
- Interconnection-wide analysis of steady-state and dynamic conditions, including frequency, ERS, stability, short circuit ratio, and oscillatory behavior aspects; and
- Assuring that the BES electrical elements necessary for its reliable operation are identified and subject to the Reliability Standards.

### **Advanced System Analytics and Modeling**

The Advanced System Analytics and Modeling (ASAM) group provides support for the development and improvement of long-term, sustainable interconnection-based power flow, dynamic, and load models that exhibit the accuracy and fidelity reflecting actual BES reliability performance and dynamic conditions. As new technology incorporation into the BPS accelerates, there is a need for new and improved models towards simulation of their contributions and impacts on reliability. This will facilitate improved design and maximize technology incorporation while maintaining the reliable operation of the BPS. The group:

- Provides guidance on the appropriate use of new and existing models to study emerging risks;
- Advances understanding of power system characteristics and behaviors by gathering larger phasor measurement units (PMU) datasets for advanced data analytics and modeling improvements; and
- Promotes and expands understanding of the growing need and available methods for probabilistic studies to augment deterministic studies in system planning studies.

ASAM further provides advanced statistical analysis functions to support the RA and Technical Committees group's *State of Reliability* report and various reliability assessments, PSA's interconnection-wide analysis of frequency response and other parameters, and PRISM's analytical review of Reliability Standard effectiveness.

## Stakeholder Engagement and Benefit

The groups described above work collaboratively with NERC stakeholders, particularly through the PC and OC 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, Electric Power Research Institute (EPRI), Institute of Electrical and Electronics Engineers (IEEE), 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
- Planning software
- Infrastructure and geographic-related vulnerabilities analysis software
- Data management systems, including GADS, GADS Wind, TADS, DADS, RADS, BASS, the Frequency Response Analysis Tools (FRAT), and the Misoperations Information Data Analysis System (MIDAS)

## Key Efforts Underway

In addition to the development of the annual assessments and reports, RA focus areas and ongoing activities include:

- Effective ERS. These efforts are expected to lead to a broad set of recommendations that will 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. In addition to the Planning Reserve Margin analysis, future seasonal reliability assessments will use historical resource performance data to identify expected and potentially extreme operational risks;
- Advancing probabilistic assessments and evaluations of energy assurance; 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, in FERC's Order No. 830 approving Reliability Standard TPL-007-1 (*Transmission System Planned Performance for Geomagnetic Disturbance Events*), FERC directed NERC to file a research work plan describing how NERC will conduct research into the GMD-related topics identified in the order. NERC

developed a research plan<sup>10</sup> with EPRI and filed it with FERC on April 19, 2018. This \$3.4M research project is being co-funded by NERC along with more than 20 owners and operators from the electric industry. As part of this effort and directed by FERC, the Board approved an ROP Section 1600 data request to collect GMD data August 16, 2018. Further, NERC continues to work with industry to collect information on geomagnetically induced current (GIC) and the potential impacts on power system reliability.

The technical committees recognize the need to strengthen the ties among each other to ensure expertise is leveraged and amplified, thereby increasing the relevance and value of results. NERC staff is supporting a Stakeholder Engagement Team that has been formed to review the structure, drawing upon the experience of successfully enhanced Regional Entity committee models, and develop recommendations to improve the effectiveness and efficiency of the committees.

PA continues to oversee and evaluate reliability trends that identify reliability risks by analyzing data contained in GADS, TADS, and DADS, along with reliability metrics and protection and controls system misoperations data. PA is currently expanding the GADS data trend analysis and has begun reflecting post-seasonal reliability review, insights from analysis of the GADS, TADS, and DADS, and integration of event analysis and misoperations. Additionally, in 2019, PA began development of reporting requirements for solar and associated energy storage data collection.

The PSA 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, etc.). 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 usage 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; and
- Providing technical expertise, research, and feedback to the industry, including those that support development of key reliability planning-related standards.

ASAM's current key focus areas include:

- Provide 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 PC's Inverter-Based Resource Performance Task Force (IRPTF), perform event analyses and investigate abnormal performance of inverter-based resources, particularly solar photovoltaic. Develop industry recommendations and address potential reliability gaps.
- Support industry in the reliable integration of increased levels of DER, and provide industry technical guidance on key reliability impacts. Develop recommended practices and guidelines (modeling, planning, and operations) to ensure BPS reliability.

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<sup>10</sup> [Revised Geomagnetic Disturbance Research Work Plan of the North American Electric Reliability Corporation](#)

- Support industry adoption and advancement of synchrophasor technology through the PC's Synchronized Measurement Subcommittee (SMS). Study interconnection-wide oscillatory behavior (and other interconnection-wide phenomena) through PMU data collected from RCs.
- Support industry understanding and expertise in power plant modeling through the PC's System Analysis and Modeling Subcommittee's (SAMS's) Power Plant Modeling and Verification Task Force (PPMVTF). Advance capabilities to perform a disturbance based model verification, working with software vendors. Support industry implementation of MOD-026-1 and MOD-027-1.
- Drive improvements of dynamic load modeling capabilities in support of industry stability studies for planning and real-time reliability assessments. Advance state-of-the-art modeling capability across North America. Support the SAMS's Load Modeling Task Force (LMTF) efforts.
- Support studies and technical positions on the changing nature of end use loads and advocate for grid-friendly load behavior. Engage with industries collaboratively, working with utility members, to represent BPS needs.
- Perform annual assessments of case quality and fidelity on the interconnection-wide cases released by the MOD-032 designees. Develop a feedback loop mechanism with the MOD-032 designees to instigate improvements to models.
- Proactively address deficiencies in interconnection-wide models and provide industry education on key modeling topics (e.g., generic model notifications for wind, solar, battery) as identified by NERC or industry.
- Coordinate with the PC's Methods for Establishing IROs Task Force (MEITF) and support improvements to the methods, practices, and tools used for establishing IROs. Coordinate with industry and FERC on potential new approaches to characterize IROs while ensuring reliable operation of the BPS.
- Conduct a Composite Reliability Study using probabilistic—or near probabilistic—methods for transmission as well as resources.
- Conduct a Joint WECC/NERC Battery Study of the Western Interconnection to determine the adequacy of battery energy injection to support frequency response, steady-state and dynamic support, primary frequency reserve margin, etc.
- Conduct advanced statistical studies in support of the Standards Efficiency Review and the *State of Reliability Report*.

### **2020 Goals and Deliverables**

In 2020, the RA and Technical Committees, PA, PSA, and ASAM groups will continue the efforts described above as applicable, with particular focus on evaluation and assessment of future energy assurance, a Special Reliability Assessment on electricity storage, an Interconnection-wide short circuit study and report, as well as implementation of an effectiveness and efficiency strategy for NERC's committee structure.

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 the suite of data management tools, including GADS, GADS Wind, TADS, DADS, RADS, and BASS. NERC also continues to develop technology applications for the collection of new data under Section 1600 data requests. This includes the collection of GMD data as a result of FERC Order 830 discussed above. NERC also expects to work with industry on a Section 1600 data request for the collection of data for solar energy storage associated with solar and wind generation, as well as event reporting for solar and wind generation, which will require the development of a GADS Solar data management system.



## **Future Plans**

In 2021 and beyond, NERC will need to continue to build and maintain the analytical capabilities needed to support the reliability of the changing grid. This will include the implementation of data collection applications to include solar inventory, event, and performance reporting, as well as the integration of energy storage with the solar and wind facilities, and the development of a strategic plan to re-platform data collection applications as needed 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 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 of the character and composition of the BPS.

## **Resource Requirements**

### **Personnel**

The decrease of 1.88 FTEs in the 2020 budget is a result of the department and position reorganization discussed in the *Introduction and Executive Summary*.

### **Consultants and Contracts**

The decrease of \$526k for Consultants and Contracts in the 2020 budget is primarily a result of a reclassification of maintenance and enhancement costs for GADS, TADS, and DADS to Office Costs and Fixed Assets, respectively. A detailed breakdown of 2019 and 2020 budgeted expenses are shown in *Exhibit B – Consultant and Contract Costs*.

### **Other Costs**

The \$140k increase for Meeting Expenses in the 2020 budget is primarily a result of the department and position reorganization (discussed in the *Introduction and Executive Summary*) due to the movement of associated costs for the NERC technical committee meetings to the RA and Technical Committees group. The \$219k increase for Office Costs is due to the reclassification of maintenance and enhancement costs for GADS, TADS, and DADS from Consultants and Contracts. The Fixed Asset budget for 2020 includes \$600k for enhancements for the GADS, TADS, and DADS tools and development of GADS Solar, discussed above.

Section A – 2020 Business Plan and Budget Program Area and Department Detail

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>RELIABILITY ASSESSMENTS AND PERFORMANCE ANALYSIS</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 13,056,888	\$ 13,056,888	\$ -	\$ 13,001,958	\$ (54,930)
Assessment Stabilization Reserve - Penalties	102,414	102,414	-	-	(102,414)
<b>Total NERC Funding</b>	<b>\$ 13,159,302</b>	<b>\$ 13,159,302</b>	<b>\$ -</b>	<b>\$ 13,001,958</b>	<b>\$ (157,344)</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	40,000	40,000	-	60,000	20,000
Miscellaneous	-	-	-	-	-
Interest & Investment Income	32,894	86,656	53,762	60,345	27,450
<b>Total Funding (A)</b>	<b>\$ 13,232,197</b>	<b>\$ 13,285,958</b>	<b>\$ 53,762</b>	<b>\$ 13,122,303</b>	<b>\$ (109,893)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,170,057	\$ 3,788,384	\$ (381,674)	\$ 3,662,883	\$ (507,174)
Payroll Taxes	260,940	236,077	(24,863)	233,091	(27,849)
Benefits	541,751	554,185	12,434	595,261	53,511
Retirement Costs	461,661	408,079	(53,582)	407,604	(54,057)
<b>Total Personnel Expenses</b>	<b>\$ 5,434,409</b>	<b>\$ 4,986,724</b>	<b>\$ (447,685)</b>	<b>\$ 4,898,839</b>	<b>\$ (535,570)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 117,100	\$ 117,504	\$ 404	\$ 286,800	\$ 169,700
Travel	330,000	368,463	38,463	300,000	(30,000)
<b>Total Meeting Expenses</b>	<b>\$ 447,100</b>	<b>\$ 485,967</b>	<b>\$ 38,867</b>	<b>\$ 586,800</b>	<b>\$ 139,700</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,278,565	\$ 1,260,243	\$ (18,322)	\$ 752,570	\$ (525,995)
Office Rent	-	-	-	-	-
Office Costs	294,000	294,000	-	513,304	219,304
Professional Services	-	-	-	-	-
Miscellaneous	1,000	1,000	-	2,000	1,000
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 1,573,565</b>	<b>\$ 1,555,243</b>	<b>\$ (18,322)</b>	<b>\$ 1,267,874</b>	<b>\$ (305,691)</b>
<b>Total Direct Expenses</b>	<b>\$ 7,455,074</b>	<b>\$ 7,027,935</b>	<b>\$ (427,139)</b>	<b>\$ 6,753,513</b>	<b>\$ (701,561)</b>
<b>Indirect Expenses</b>	<b>\$ 5,589,571</b>	<b>\$ 5,875,690</b>	<b>\$ 286,119</b>	<b>\$ 5,534,837</b>	<b>\$ (54,734)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 13,044,645</b>	<b>\$ 12,903,625</b>	<b>\$ (141,020)</b>	<b>\$ 12,288,351</b>	<b>\$ (756,294)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 187,552</b>	<b>\$ 382,334</b>	<b>\$ 194,782</b>	<b>\$ 833,953</b>	<b>\$ 646,401</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 187,552</b>	<b>\$ 125,284</b>	<b>\$ (62,268)</b>	<b>\$ 833,953</b>	<b>\$ 646,401</b>
<b>Total Budget (=B+C)</b>	<b>\$ 13,232,197</b>	<b>\$ 13,028,908</b>	<b>\$ (203,288)</b>	<b>\$ 13,122,303</b>	<b>\$ (109,893)</b>
<b>FTEs</b>	<b>25.38</b>	<b>24.63</b>	<b>(0.75)</b>	<b>23.50</b>	<b>(1.88)</b>

## Situation Awareness

<b>Situation Awareness</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	5.64	5.64	-
Direct Expenses	\$ 2,612,404	\$ 2,578,597	\$ (33,807)
Indirect Expenses	1,242,127	1,328,361	86,234
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	441,678	349,049	(92,630)
<b>TOTAL BUDGET</b>	<b>\$ 4,296,209</b>	<b>\$ 4,256,006</b>	<b>\$ (40,203)</b>

### Background and Scope

NERC's Situation Awareness group and the Regional Entities monitor BPS conditions, significant occurrences and emerging risks, and threats across the 14 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 Regional Entities, 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 OC's Operating Reliability Subcommittee (ORS) 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 the following reliability-related tools in support of Situation Awareness activities:

- **Resource Adequacy (Area Control Error [ACE] Frequency) Tool** – This software application provides continuous monitoring of key resource adequacy performance metrics, including pre-established thresholds and limits defined in standards. It alerts 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** – This tool facilitates the entering of monthly scheduling data and submittal of monthly inadvertent performance standards reports to NERC. It also assists in the monitoring and resolution of reliability issues originated by inadvertent interchange imbalances.

- **Frequency Monitoring Network (FNet)** – Operated by the Power Information Technology Laboratory at the University of Tennessee, FNet is a low-cost, quickly deployable GPS-synchronized wide-area frequency measurement network. High dynamic accuracy frequency disturbance recorders are used to measure the frequency, phase angle, and voltage of the power system at ordinary 120V outlets. This measurement data is continuously transmitted via the Internet to the FNet servers hosted at the University of Tennessee and Virginia Tech.
- **Intelligent Alarms Tool** – This tool detects short-term and long-term frequency deviations using data transmitted to NERC by the BAs. When coupled with FNet, this tool allows immediate differentiation of the cause of a frequency deviation—a generator trip or a scheduling error.
- **PowerIQ and Power RT** – These tools provide more detailed insight into current-day conditions impacting BPS conditions in both normal operations and stressed conditions.
- **Situation Awareness for NERC, FERC, and the Regional Entities (SAFNR)** – This system 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.
- **Reliability Coordinator Information System (RCIS)** – This system allows RCs to post messages and share operating information in real time.
- **NERC Alerts** – This secure alerting system 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.
- **Process Information (PI) Historian System** – The PI Historian system initially provided the ability to collect and analyze system inertia data in support of the recommendations in the 2015 Essential Reliability Services Task Force (ERSTF) report. The system also offers longer term value by enabling the continued strategy to transition away from outside applications by replicating the functionality of Resource Adequacy and Intelligent Alarms in-house. The system also creates the necessary foundation for NERC’s eventual receipt and consumption of streaming synchrophasor data in near real time.

### Key Efforts Underway

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;
- 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.

Additionally, in 2019, the Situation Awareness group is focusing on the upgrade to the SAFNR software application, which is expected to be released by the end of the year. The current SAFNR platform limits the Situation Awareness group's ability to accurately understand current conditions on the BPS due to the inability to easily or cost-effectively update the underlying power system information. The upgrade will allow 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, enhancing SAFNR will incorporate 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.

### **2020 Goals and Deliverables**

In 2020, the Situation Awareness group will continue to execute the activities discussed above, including implementation of the upgraded SAFNR system and development of any needed enhancements. Additional 2020 plans include (1) an upgrade to the video wall in the NERC Atlanta office situational awareness room; (2) enhancing natural gas situational awareness by working with vendors to gain a better understanding of the tools and methods that are and will be available to monitor natural gas availability, transmission, and distribution across the BES; and (3) working with the E-ISAC to increase situational awareness related to physical security.

### **Future Plans**

In 2021 and beyond, efforts related to natural gas and physical security situational awareness will continue. The Situation Awareness group is also planning for needed upgrades to or replacements of the RCIS, Resource Adequacy Tool, and NERC Alerts applications.

### **Resource Requirements**

#### **Personnel**

There is no change in FTEs for the 2020 budget from the 2019 budget.

#### **Consultants and Contracts**

The \$1.3M decrease in Consultants and Contracts in the 2020 budget is a result of a reclassification of costs for licenses, support, and maintenance for the Situation Awareness tools discussed above to Office Costs. A detailed breakdown of the 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contract Costs*.

#### **Other Costs**

The \$1.1M increase for Office Costs in the 2020 budget is a result of the reclassification of costs for licenses, support, and maintenance for the Situation Awareness tools discussed above from Contracts and Consultants. The costs for these tools in 2020 is consistent with the 2019 budget. The total Fixed Assets budget includes \$250k for an upgrade to the video wall in the NERC Atlanta office situational awareness room.

Section A – 2020 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2019 Budget & Projection, and 2020 Budget					
SITUATION AWARENESS					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 4,266,141	\$ 4,266,141	\$ -	\$ 4,241,524	\$ (24,617)
Assessment Stabilization Reserve - Penalties	22,759	22,759	-	-	(22,759)
<b>Total NERC Funding</b>	<b>\$ 4,288,899</b>	<b>\$ 4,288,899</b>	<b>\$ -</b>	<b>\$ 4,241,524</b>	<b>\$ (47,376)</b>
Third-Party Funding	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	7,310	19,581	12,271	14,483	7,173
<b>Total Funding (A)</b>	<b>\$ 4,296,209</b>	<b>\$ 4,308,480</b>	<b>\$ 12,271</b>	<b>\$ 4,256,006</b>	<b>\$ (40,203)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 865,683	\$ 902,298	\$ 36,615	\$ 900,228	\$ 34,546
Payroll Taxes	58,475	56,755	(1,720)	59,293	817
Benefits	182,721	209,972	27,252	227,569	44,849
Retirement Costs	95,435	85,885	(9,551)	100,163	4,727
<b>Total Personnel Expenses</b>	<b>\$ 1,202,314</b>	<b>\$ 1,254,910</b>	<b>\$ 52,596</b>	<b>\$ 1,287,253</b>	<b>\$ 84,939</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 2,000	\$ 3,896	\$ 1,896	\$ 30,000	\$ 28,000
Travel	33,000	50,000	17,000	35,000	2,000
<b>Total Meeting Expenses</b>	<b>\$ 35,000</b>	<b>\$ 53,896</b>	<b>\$ 18,896</b>	<b>\$ 65,000</b>	<b>\$ 30,000</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,280,990	\$ 1,329,740	\$ 48,750	\$ -	\$ (1,280,990)
Office Rent	-	-	-	-	-
Office Costs	93,600	255,722	162,122	1,225,844	1,132,244
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 1,375,090</b>	<b>\$ 1,585,962</b>	<b>\$ 210,872</b>	<b>\$ 1,226,344</b>	<b>\$ (148,746)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,612,404</b>	<b>\$ 2,894,769</b>	<b>\$ 282,365</b>	<b>\$ 2,578,597</b>	<b>\$ (33,807)</b>
<b>Indirect Expenses</b>	<b>\$ 1,242,127</b>	<b>\$ 1,381,252</b>	<b>\$ 139,125</b>	<b>\$ 1,328,361</b>	<b>\$ 86,234</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 3,854,531</b>	<b>\$ 4,276,021</b>	<b>\$ 421,490</b>	<b>\$ 3,906,958</b>	<b>\$ 52,427</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 441,678</b>	<b>\$ 32,459</b>	<b>\$ (409,219)</b>	<b>\$ 349,049</b>	<b>\$ (92,630)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 441,678</b>	<b>\$ 162,785</b>	<b>\$ (278,894)</b>	<b>\$ 349,049</b>	<b>\$ (92,630)</b>
<b>Total Budget (=B+C)</b>	<b>\$ 4,296,209</b>	<b>\$ 4,438,806</b>	<b>\$ 142,597</b>	<b>\$ 4,256,006</b>	<b>\$ (40,203)</b>
<b>FTEs</b>	<b>5.64</b>	<b>5.79</b>	<b>0.15</b>	<b>5.64</b>	<b>-</b>

## Event Analysis

<b>Event Analysis</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	11.28	9.40	(1.88)
Direct Expenses	\$ 2,731,658	\$ 2,426,341	\$ (305,317)
Indirect Expenses	2,484,254	2,213,935	(270,319)
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	83,356	93,581	10,225
<b>TOTAL BUDGET</b>	<b>\$ 5,299,268</b>	<b>\$ 4,733,857</b>	<b>\$ (565,411)</b>

### 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 or retire Reliability Standards or consider new Reliability Standards. The group analyzes and determines the cause of the events, promptly ensures tracking of corrective actions to prevent recurrence, and provides lessons learned to the industry. Event Analysis ensures that reporting and analysis are consistent to allow wide-area assessment of trends and risks. The group analyzes all 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.

Additional 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 WECC's Human Performance Working Group, the OC's Event Analysis Subcommittee (EAS), and others.

### 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 of approximately 150 events per year on average. Each year, the team also conducts calls facilitated by the Regional Entities with over 140 registered entities to discuss in detail and finalize root and contributing causes for the categorized events analyzed. 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

The Event Analysis Management System (TEAMS) is used 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 in TEAMS is used to fuel event cause coding, general system performance analysis, and key performance indicators.

## Key Efforts Underway

Event Analysis focus areas and ongoing activities include:

- Work with the Regional Entities 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 training (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 Human Performance Conference.
- 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.

## 2020 Goals and Deliverables

In addition to continuing the activities described above, in 2020 the Event Analysis group will focus on updating/upgrading data collection and shortage capabilities and capacity for TEAMS. Additionally, the Event Analysis and PA groups will work to develop a link between performance and event analysis data to enhance the ability to conduct effective event analyses, as well as to identify key areas for trend analyses across multiple databases.

## Future Plans

In 2021 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 and capacity and integration with other database systems.

## Resource Requirements

### Personnel

The 1.88 decrease in FTEs in the 2020 budget is a result of the department and position reorganization discussed in the *Introduction and Executive Summary*.

### Consultants and Contracts

The \$10k for Consultants and Contracts in the 2020 budget is for Event Analysis review support.



Section A – 2020 Business Plan and Budget Program Area and Department Detail

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>EVENT ANALYSIS</b>					
	<b>2019 Budget</b>	<b>2019 Projection</b>	<b>Variance 2019 Projection v 2019 Budget Over(Under)</b>	<b>2020 Budget</b>	<b>Variance 2020 Budget v 2019 Budget Over(Under)</b>
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 5,239,131	\$ 5,239,131	\$ -	\$ 4,709,719	\$ (529,412)
Assessment Stabilization Reserve - Penalties	45,517	45,517	-	-	(45,517)
<b>Total NERC Funding</b>	<b>\$ 5,284,648</b>	<b>\$ 5,284,648</b>	<b>\$ -</b>	<b>\$ 4,709,719</b>	<b>\$ (574,929)</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	14,620	33,050	18,431	24,138	9,518
<b>Total Funding (A)</b>	<b>\$ 5,299,268</b>	<b>\$ 5,317,699</b>	<b>\$ 18,431</b>	<b>\$ 4,733,857</b>	<b>\$ (565,411)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 1,903,950	\$ 1,696,731	\$ (207,220)	\$ 1,651,222	\$ (252,728)
Payroll Taxes	113,420	93,235	(20,185)	94,949	(18,472)
Benefits	264,308	234,796	(29,512)	259,683	(4,625)
Retirement Costs	210,479	180,160	(30,319)	181,837	(28,643)
<b>Total Personnel Expenses</b>	<b>\$ 2,492,158</b>	<b>\$ 2,204,922</b>	<b>\$ (287,236)</b>	<b>\$ 2,187,691</b>	<b>\$ (304,467)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 41,500	\$ 23,214	\$ (18,286)	\$ 33,600	\$ (7,900)
Travel	150,000	150,000	-	150,000	-
<b>Total Meeting Expenses</b>	<b>\$ 191,500</b>	<b>\$ 173,214</b>	<b>\$ (18,286)</b>	<b>\$ 183,600</b>	<b>\$ (7,900)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000
Office Rent	-	-	-	-	-
Office Costs	47,500	47,500	-	44,550	(2,950)
Professional Services	-	-	-	-	-
Miscellaneous	500	4,461	3,961	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 48,000</b>	<b>\$ 51,961</b>	<b>\$ 3,961</b>	<b>\$ 55,050</b>	<b>\$ 7,050</b>
<b>Total Direct Expenses</b>	<b>\$ 2,731,658</b>	<b>\$ 2,430,097</b>	<b>\$ (301,561)</b>	<b>\$ 2,426,341</b>	<b>\$ (305,317)</b>
<b>Indirect Expenses</b>	<b>\$ 2,484,254</b>	<b>\$ 2,311,630</b>	<b>\$ (172,624)</b>	<b>\$ 2,213,935</b>	<b>\$ (270,319)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 5,215,912</b>	<b>\$ 4,741,727</b>	<b>\$ (474,185)</b>	<b>\$ 4,640,276</b>	<b>\$ (575,636)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 83,356</b>	<b>\$ 575,972</b>	<b>\$ 492,616</b>	<b>\$ 93,581</b>	<b>\$ 10,225</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 83,356</b>	<b>\$ 49,289</b>	<b>\$ (34,067)</b>	<b>\$ 93,581</b>	<b>\$ 10,225</b>
<b>Total Budget (=B+C)</b>	<b>\$ 5,299,268</b>	<b>\$ 4,791,016</b>	<b>\$ (508,252)</b>	<b>\$ 4,733,857</b>	<b>\$ (565,411)</b>
<b>FTEs</b>	<b>11.28</b>	<b>9.69</b>	<b>(1.59)</b>	<b>9.40</b>	<b>(1.88)</b>

## Electricity Information Sharing and Analysis Center

E-ISAC (including CRISP) (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	37.60	44.18	6.58
Direct Expenses	\$ 17,959,819	\$ 20,018,016	\$ 2,058,197
Indirect Expenses	8,392,122	10,405,494	2,013,372
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	973,686	861,280	(112,405)
TOTAL BUDGET	\$ 27,325,627	\$ 31,284,791	\$ 3,959,164

### Background and Scope

The Electricity Information Sharing and Analysis Center (E-ISAC) mission is to reduce cyber and physical security risk to the electricity industry across North America through unique insights, leadership, and collaboration. At the request of the Board and under the guidance of the ESCC and MEC, executive leadership of the E-ISAC developed the [E-ISAC Long-Term Strategic Plan](#), which was approved by the MEC on April 24, 2017 and accepted by the Board on May 11, 2017. This long-term strategy includes a five-year resource plan to transform the E-ISAC into a world-class intelligence collecting and analytical capability for the electricity industry. The goal is to build the E-ISAC into a world-class, trusted source of quality analysis and rapid sharing of security information for the electricity industry. The strategic plan contemplates a measured increase in resources over an initial five year period, with the exact timing of resource additions dependent on management’s progress executing the long-term strategy and receiving required corporate and regulatory authorizations.

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, the 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. The majority of the CRISP budget is funded by participating utilities, with a small portion funded through NERC assessments.

### Stakeholder Engagement and Benefit

The E-ISAC’s engagement with stakeholders is best described in the context of the three primary foundational focus areas, which are further described the E-ISAC’s long-term strategy: (1) engagement, (2) information sharing, and (3) analysis.

### Engagement

A member-first culture drives the E-ISAC focus to provide value to the electricity industry asset owners and operators, and active engagement of members and partners (government and other security organizations) increases data sources and leverage cross-sector security resources. Successful

engagement with electric industry members and other stakeholders is critical to building trust, which is vital to cyber and physical security risk identification, sharing, analysis, and mitigation.

The E-ISAC Portal is the primary tool for communications with members and partners. The Portal includes a user-community capability that allows members with similar security concerns to collaborate directly on a trusted, secure platform. The user communities bring together expertise regarding common issue areas and build trust through increased interaction among members. In addition to Portal communications, the E-ISAC issues bulletins, develops periodic reports, and holds monthly and dynamic briefings. The E-ISAC also developed a Critical Broadcast Program (CBP) to facilitate more rapid information sharing with industry regarding potential security threats.

The E-ISAC also hosts industry members through its Industry Engagement Program (IEP). The IEP embeds industry security analysts at the E-ISAC, who interact with E-ISAC staff, observe data collection and handling procedures, and share their own expertise with E-ISAC personnel. Participants also provide valuable feedback regarding their organizations' security practices and needs, which helps inform ongoing and future practices and programs within the E-ISAC.

The E-ISAC also regularly interacts with industry members in coordination with various trade associations, including the American Public Power Association (APPA), CEA, EEI, and the National Rural Electric Cooperative Association (NRECA) by providing analyst briefings and information regarding E-ISAC programs and services. Participating in planned regional security programs enables the E-ISAC to share actionable security information across industry.

Since 2011, the E-ISAC has sponsored a biennial grid security exercise (GridEx). This geographically-distributed exercise is designed to exercise the electricity industry's crisis response to simulated coordinated cyber and physical security threats and incidents, to strengthen utilities' crisis response functions, and to provide input for lessons learned. The E-ISAC manages the program and collects industry information during and after the exercise subject to existing data collection and protection policies. During the exercise, E-ISAC Watch Operations and analyst staff exercise the E-ISAC mission and share crisis information and analysis towards mitigating the threats and attacks. Lessons learned and recommendations are shared with exercise participants via restricted reports, and also shared publically at a high level.

Also since 2011, NERC has also sponsored an annual grid security conference (GridSecCon). This conference brings together hundreds of industry and government subject matter experts on cyber, physical, and operations technology threats and solutions, with training sessions and classified or official-use briefs on topics vital to grid security. The E-ISAC provides expertise and gathers appropriate speakers, panelists, and training providers.

The E-ISAC is committed to strengthening ongoing collaboration between industry and government, which is a key component of GridEx and other security exercises. Exercises like GridEx are vital to effectively responding to any crisis affecting the electric grid. The E-ISAC continues to build relationships with the government intelligence community, with the goal of increased access to government-informed threat information and analysis. The E-ISAC is engaged in regular communications with the DOE, the Department of Homeland Security (DHS), the Department of Defense (DOD), and FERC's Office of Energy and Infrastructure Security, and continues to build on its cross-sector relationships with the other ISACs (e.g., financial services, multi-state, downstream natural gas, water, communications, and nuclear).

In 2018, the E-ISAC launched a Canadian engagement strategy to strengthen collaboration and information sharing between the E-ISAC and the Canadian electric industry, as well as between the E-ISAC

and applicable trade associations, Canadian regulatory authorities, and the Canadian cyber security intelligence community. This strategy includes ongoing partnership outreach tours and face-to-face meetings with industry leaders in each of the interconnected provinces. Other initiatives involving Canadian entities include participation in the E-ISAC's IEP and unclassified and classified briefings.

### **Information Sharing**

Timely and effective information sharing is critical to sector engagement, security risk identification, and mitigation. Focus areas include: developing and implementing high priority notification procedures, using automated information sharing technology, improving E-ISAC Portal functionality, and improving industry personnel's access to classified information. The E-ISAC Portal capabilities include publishing immediate notifications and other informational products, exchanging threat indicator information, and providing self-service access to user security awareness services. Beyond the Portal notifications, the E-ISAC developed the CBP to deliver information rapidly to stakeholders about emerging security threats based on the best analysis available at the time, with follow-on updates as more details emerge. The CBP allows a faster response to events and a higher level of awareness for members provided by E-ISAC analysts.

As discussed above, the E-ISAC delivers real-time, relevant, and actionable cyber security risk information to all E-ISAC member electricity asset owners and operators through CRISP. The E-ISAC has also broadened automated information sharing capabilities beyond CRISP, piloting a program using the Structured Threat Information Expression/Trusted Automated Exchange of Indicator Information (STIX/TAXII) protocols in use by many organizations, including DHS. To that end, during 2017 and early 2018, the E-ISAC and several industry partners piloted the Cyber Automated Information Sharing System (CAISS). The pilot evaluated technological solutions for bi-directional communication, workflow between participants, the handling and vetting of shared information, and lessons learned from the technology and processes overall. CAISS became operational in 2019 and is available for voluntary participation from industry asset owners and operators.

### **Analysis**

As mentioned previously, the E-ISAC publishes reports, bulletins, and advisories; conducts monthly webinars; and convenes experts for classified and unclassified briefings for its members. The most valuable content in those activities comes from analysis by E-ISAC cyber security, physical security, and threat intelligence teams, as well as incorporating independent analysis from members, government partners, the cross-sector community, strategic vendors, and other partners.

The E-ISAC Plan has guided investments in hiring and training skilled security analysts, identifying and leveraging additional technology, enhancing relationships with and access to government analysis sources, and developing strategic vendor relationships, which are all crucial to the E-ISAC's goal of providing credible, timely analytics that turn member, cross-sector, third-party, and government data into sector-specific insights and allow for member action against threats.

Building and maintaining highly-skilled cyber and physical security analysis teams are significant and ongoing areas of management focus. The E-ISAC also continually evaluates and, where appropriate, contracts with outside service providers with security analysis expertise to support highly-specialized analytical needs, as well as to supplement in-house capabilities.

### **Tools and Technology**

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

- The E-ISAC Portal
- Hardware and software funded and supported as part of CRISP

- Industry broadcast communication systems
- A customer relationship management (CRM) system
- An event management system
- A high frequency disaster recovery communication system
- Data storage and management systems
- E-mail and secure text communications systems
- Technology to facilitate threat communications among members
- Incident management tools
- Various third-party physical and cyber security sharing information services

### **Key Efforts Underway**

As noted above, the three primary elements of E-ISAC's long-term strategy are engagement, information sharing, and analysis. The following are current efforts related to those areas, as well as other supporting activities:

#### **Engagement**

- Organizing and advertising industry briefings and IEPs;
- Ongoing execution of the Canadian engagement strategy, including expanding Canadian membership growth and Portal usage;
- Continuing to build and strengthen governmental, cross-sector, and international relationships, including with U.S. and Canadian intelligence communities, as well as collaborating with Ontario Independent Electric System Operator (IESO) cyber security information sharing operations. Discussions with IESO have focused on the mutual benefits of entering into a pilot collaboration agreement, which builds on the strengths of both organizations and improves the overall efficiency and effectiveness in the execution of their common objective of assisting industry with cyber security awareness and reducing cyber security risks.
- Expanding participation in the 2019 GridEx V program, including identifying action items, lessons learned, and obtaining feedback on execution of the exercise;

#### **Information Sharing**

- Procuring and deploying CRM technology;
- Implementing Portal enhancements, expanding Portal user groups, and integrating CRM-related capabilities with the Portal;
- Onboarding new CRISP participants and increasing cross-sector information sharing;
- Creating governance and control procedures for bidirectional information exchanges with U.S. and Canadian security organizations;
- Creating governance frameworks and procedures to support information sharing with other ISACs;

### **Analysis**

- Executing hiring plan for watch officers and analysts;
- Expanding internal threat analysis using available data sources;
- Expanding collaborative relationships with federally funded research organizations;
- Providing for advanced training for analysts;

### **Metrics**

- Developing metrics to more effectively measure progress in execution of the long term strategy, including the effectiveness of activities in supporting achievement of approved goals and objectives; and

### **Internal Controls**

- Refining and updating internal control procedures, as well as developing additional procedures as appropriate.

### **2020 Goals and Deliverables**

The E-ISAC remains focused on furtherance of the strategic efforts discussed above as 2020 marks the third year of the long-term strategy. Building on the resources and foundation put in place in the 2018 and 2019 BP&Bs, the E-ISAC 2020 budget reflects a continued measured approach in strengthening the resources and technology required to support the three primary elements of the E-ISAC's long-term strategy: engagement, information sharing, and analysis.

### **Engagement**

- Building and enriching the value of E-ISAC membership;
- Strengthening trusted-source relationships;
- Enhancing engagement with Canada;
- Evolving the GridEx program;

### **Information Sharing**

- Continuing to improve Portal features and capabilities;
- Increasing information sharing by trusted source partners and industry;
- Improving value added actionable information sharing with industry;
- Implementation of 24x7 watch capabilities;

### **Analysis**

- Leveraging technology, data sources, and analytical capabilities to increase sharing of valued added and actionable threat information to industry;
- Continuing to strengthen watch operations and analysis team skills;
- Developing new data sources, analytical tools, and capabilities; and
- Strengthening analytical capabilities through strategic partnerships.

## Future Plans

In 2021 and 2022, the E-ISAC will continue execution of the long-term strategy, including:

- Strengthening analytical and value added information sharing resources and capabilities, including effectively building out watch operations and increasing analytical bench strength;
- Building on trusted source partnerships with governmental agencies, including DOE, DHS and DOD, the national laboratories, and the intelligence community;
- Expanding sources of valuable threat information and analysis; and
- Making investments in technology to support both ongoing operations and key initiatives. This includes continuing to enhance Portal features and capabilities, and investing in the infrastructure necessary to support the expanded intake, storage, and management of data from multiple sources, with solid business cases supporting each new investment and disciplined execution ensuring solid results and returns on investment.

## Resource Requirements

### Personnel

The increase of 6.58 FTEs is to address the watch operations, analytical, and engagement capabilities discussed above in support of the long-term strategy for the E-ISAC. An additional 2.82 FTEs are being added to Administrative Programs areas for E-ISAC support activities.

### Consultants and Contracts

Consultants and contracts expenses for the E-ISAC 2020 budget, including CRISP, are approximately \$8.1M, which is consistent with the 2019 budget. CRISP's consultants and contracts expenses are \$6.7M, which is \$200k more than the 2019 budget, largely due to an increase in scope and funding for the outside auditor security review. A detailed breakdown of the budgeted 2019 and 2020 costs is provided in *Exhibit B – Consultant and Contractor Costs*.

### Other Costs

The \$560k increase in Office Costs is primarily due to additional software licensing and support costs for tools and technology in support of the E-ISAC long-term strategy, including the E-ISAC Portal and CRM and CBP systems. The \$116k increase in Meeting Expenses is a result of increased travel costs due to personnel increases and engagement efforts, as well as enhanced conference call capabilities. The total Fixed Asset budget includes \$350k for continued enhancements to the E-ISAC Portal.

Section A – 2020 Business Plan and Budget Program Area and Department Detail

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>E-ISAC (including CRISP)</b>					
	<b>2019 Budget</b>	<b>2019 Projection</b>	<b>Variance 2019 Projection v 2019 Budget Over(Under)</b>	<b>2020 Budget</b>	<b>Variance 2020 Budget v 2019 Budget Over(Under)</b>
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 19,627,897	\$ 19,627,897	\$ -	\$ 23,328,006	\$ 3,700,109
Assessment Stabilization Reserve - Penalties	155,517	155,517	-	-	(155,517)
<b>Total NERC Funding</b>	<b>\$ 19,783,414</b>	<b>\$ 19,783,414</b>	<b>\$ -</b>	<b>\$ 23,328,006</b>	<b>\$ 3,544,592</b>
Third-Party Funding	\$ 7,486,353	\$ 7,338,907	\$ (147,446)	\$ 7,814,577	\$ 328,224
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	55,859	182,380	126,521	142,207	86,348
<b>Total Funding (A)</b>	<b>\$ 27,325,627</b>	<b>\$ 27,304,702</b>	<b>\$ (20,925)</b>	<b>\$ 31,284,791</b>	<b>\$ 3,959,164</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 6,297,594	\$ 5,872,142	\$ (425,452)	\$ 7,494,261	\$ 1,196,667
Payroll Taxes	384,429	360,457	(23,972)	461,786	77,356
Benefits	825,677	835,508	9,832	1,060,720	235,043
Retirement Costs	672,423	595,942	(76,481)	808,861	136,438
<b>Total Personnel Expenses</b>	<b>\$ 8,180,123</b>	<b>\$ 7,664,050</b>	<b>\$ (516,073)</b>	<b>\$ 9,825,628</b>	<b>\$ 1,645,504</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 57,000	\$ 256,142	\$ 199,142	\$ 103,200	\$ 46,200
Travel	291,000	336,000	45,000	361,000	70,000
<b>Total Meeting Expenses</b>	<b>\$ 348,000</b>	<b>\$ 592,142</b>	<b>\$ 244,142</b>	<b>\$ 464,200</b>	<b>\$ 116,200</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 8,278,000	\$ 8,716,975	\$ 438,975	\$ 8,090,000	\$ (188,000)
Office Rent	-	-	-	-	-
Office Costs	903,196	1,034,196	131,000	1,462,689	559,493
Professional Services	250,000	205,000	(45,000)	175,000	(75,000)
Miscellaneous	500	4,924	4,424	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 9,431,696</b>	<b>\$ 9,961,095</b>	<b>\$ 529,399</b>	<b>\$ 9,728,189</b>	<b>\$ 296,493</b>
<b>Total Direct Expenses</b>	<b>\$ 17,959,819</b>	<b>\$ 18,217,287</b>	<b>\$ 257,468</b>	<b>\$ 20,018,016</b>	<b>\$ 2,058,197</b>
<b>Indirect Expenses</b>	<b>\$ 8,392,122</b>	<b>\$ 7,991,702</b>	<b>\$ (400,420)</b>	<b>\$ 10,405,494</b>	<b>\$ 2,013,372</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 26,351,941</b>	<b>\$ 26,208,989</b>	<b>\$ (142,952)</b>	<b>\$ 30,423,510</b>	<b>\$ 4,071,569</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 973,686</b>	<b>\$ 1,095,713</b>	<b>\$ 122,027</b>	<b>\$ 861,280</b>	<b>\$ (112,405)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 973,686</b>	<b>\$ 490,402</b>	<b>\$ (483,284)</b>	<b>\$ 861,280</b>	<b>\$ (112,405)</b>
<b>Total Budget (=B+C)</b>	<b>\$ 27,325,627</b>	<b>\$ 26,699,391</b>	<b>\$ (626,235)</b>	<b>\$ 31,284,791</b>	<b>\$ 3,959,164</b>
<b>FTEs</b>	<b>37.60</b>	<b>33.50</b>	<b>(4.10)</b>	<b>44.18</b>	<b>6.58</b>



## Personnel Certification and Continuing Education

<b>Personnel Certification and Continuing Education</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	1.88	2.82	0.94
Direct Expenses	\$ 615,828	\$ 1,046,033	\$ 430,206
Indirect Expenses	414,042	664,180	250,138
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	13,893	28,074	14,182
<b>TOTAL BUDGET</b>	<b>\$ 1,043,763</b>	<b>\$ 1,738,288</b>	<b>\$ 694,525</b>

### Background and Scope

The Personnel Certification and Continuing Education (PCCE) group oversees the System Operator Certification program, which ensures that System Operators have the skills, training, and qualifications needed to operate the system reliably. NERC maintains credentials for over 7,500 System Operator credential holders who work in various industry areas. NERC's System Operator Certification exam prepares operators for complying with requirements of Reliability Standards and, appropriately, operating the BPS during normal and emergency operations. The System Operator Certification program is governed by the PCGC, which is comprised of an industry group of operations experts, trainers, and supervisors. Certification exams are created by the PCGC's Exam Working Group (EWG), which consists of an industry group of operations subject matter experts. Under the PCGC oversight, the EWG reviews and updates job tasks and certification exams. ROP Section 600 addresses Personnel Certification activities in the area of System Operator Certification.

Credential maintenance of the System Operator Certification program is accomplished by obtaining Continuing Education Hours (CEHs). The Continuing Education (CE) program acknowledges high quality learning activities within the electric utility industry via the approval of CE providers and their approved courses. Comprised of industry training experts, the OC's Personnel Subcommittee (PS) provides oversight of the CE program. ROP Section 902 addresses the specific CE program expectations and activities.

The System Operator Certification and CE programs are self-funded through exam fees, and the PCGC oversees the programs' budgets.

### Stakeholder Engagement and Benefit

The PCCE group collaborates with the PCGC and EWG on the completion of System Operator Certification program tasks. PCCE staff coordinate and administer the PCGC 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. The group also collaborates and meets with the PS throughout the year. As part of the course evaluation, industry stakeholders have an opportunity to provide feedback on every course taken in the CE program.

### Tools and Technology

The primary tool of the System Operator Certification program and the CE program 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. CE providers use SOCCED to upload courses for approval as well as earned CEHs to System Operator transcripts.

### **Key Efforts Underway**

The PCCE 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;
- Reinstatement of Provider Renewal Audits;
- Revising the Continuing Education Program Manual; and
- Continued improvements to the SOCCED system to enhance user experiences.

### **2020 Goals and Deliverables**

Under the guidance of the PCGC, the PCCE group is dedicated to enhancing the System Operator Certification program to support reliable operation of the BPS. In 2020, 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 PS, the PCCE group will continue to focus on revisions, approval, and implementation of the new Continuing Education Program manual to provide clear and concise definitions, instructions, and processes for the CE program. The PS is also overseeing the development of guidelines that will assist industry with the creation and administration of their own System Operator Certification CE programs.

### **Future Plans**

In 2021 and beyond, the PCCE group will focus on transition and implementation plans for the primary activities in 2020. For the System Operator Certification program, this includes transitioning to One Credential and the appropriate credential maintenance requirements, and for the CE program this includes implementation of the new Continuing Education Program manual.

## Resource Requirements

### Personnel

The 0.94 increase in FTEs is the result of the reallocation of resources to realign staff with current needs.

### Consultants and Contracts

The \$120k increase for Consultants and Contracts in the 2020 budget is attributed to the movement of CE program expenses from Training and Education to PCCE (as explained in the *Introduction and Executive Summary*), as well as an increase for SOCCED database improvements. A detailed breakdown of 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contract Costs*.

### Other Costs

The \$121k increase for Office Costs in the 2020 budget is due primarily to the movement of CE program expenses from Training and Education to PCCE, as well as an increase in SOCCED database support.

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>PERSONNEL CERTIFICATION AND CONTINUING EDUCATION</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserve - Penalties	-	-	-	-	-
<b>Total NERC Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	1,190,000	1,190,000	-	1,735,000	545,000
Services & Software	-	-	-	-	-
Miscellaneous	-	260	260	-	-
Interest & Investment Income	2,437	23,513	21,076	7,241	4,805
<b>Total Funding (A)</b>	<b>\$ 1,192,437</b>	<b>\$ 1,213,773</b>	<b>\$ 21,336</b>	<b>\$ 1,742,241</b>	<b>\$ 549,805</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 258,133	\$ 309,120	\$ 50,987	\$ 372,765	\$ 114,632
Payroll Taxes	17,873	19,109	1,236	24,774	6,901
Benefits	32,946	40,383	7,437	64,235	31,289
Retirement Costs	28,276	31,803	3,528	40,459	12,183
<b>Total Personnel Expenses</b>	<b>\$ 337,228</b>	<b>\$ 400,416</b>	<b>\$ 63,188</b>	<b>\$ 502,233</b>	<b>\$ 165,006</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 33,200	\$ 32,634	\$ (566)	\$ 34,400	\$ 1,200
Travel	7,000	31,655	24,655	30,000	23,000
<b>Total Meeting Expenses</b>	<b>\$ 40,200</b>	<b>\$ 64,290</b>	<b>\$ 24,090</b>	<b>\$ 64,400</b>	<b>\$ 24,200</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 162,000	\$ 312,000	\$ 150,000	\$ 282,000	\$ 120,000
Office Rent	-	-	-	-	-
Office Costs	76,400	76,400	-	197,400	121,000
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 238,400</b>	<b>\$ 388,400</b>	<b>\$ 150,000</b>	<b>\$ 479,400</b>	<b>\$ 241,000</b>
<b>Total Direct Expenses</b>	<b>\$ 615,828</b>	<b>\$ 853,105</b>	<b>\$ 237,277</b>	<b>\$ 1,046,033</b>	<b>\$ 430,206</b>
<b>Indirect Expenses</b>	<b>\$ 414,042</b>	<b>\$ 472,345</b>	<b>\$ 58,303</b>	<b>\$ 664,180</b>	<b>\$ 250,138</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,029,870</b>	<b>\$ 1,325,450</b>	<b>\$ 295,580</b>	<b>\$ 1,710,214</b>	<b>\$ 680,344</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 162,566</b>	<b>\$ (111,677)</b>	<b>\$ (274,244)</b>	<b>\$ 32,027</b>	<b>\$ (130,539)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 13,893</b>	<b>\$ 10,072</b>	<b>\$ (3,821)</b>	<b>\$ 28,074</b>	<b>\$ 14,182</b>
<b>Total Budget (=B+C)</b>	<b>\$ 1,043,763</b>	<b>\$ 1,335,522</b>	<b>\$ 291,759</b>	<b>\$ 1,738,288</b>	<b>\$ 694,525</b>
<b>FTEs</b>	<b>1.88</b>	<b>1.98</b>	<b>0.10</b>	<b>2.82</b>	<b>0.94</b>

## Training and Education

<b>Training and Education</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	1.88	1.88	-
Direct Expenses	\$ 751,927	\$ 553,483	\$ (198,444)
Indirect Expenses	414,042	442,787	28,745
Other Non-Operating Expenses	-	-	-
Fixed Asset Additions	13,893	18,716	4,824
<b>TOTAL BUDGET</b>	<b>\$ 1,179,862</b>	<b>\$ 1,014,986</b>	<b>\$ (164,876)</b>

### 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 ERO Enterprise staff<sup>11</sup> 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.

In support of the ERO Enterprise’s ongoing efforts to engage and retain highly qualified talent with the leadership and technical skills needed to support its mission, the Training and Education group facilitates continuous learning among the ERO Enterprise’s executive and professional staff. These learning opportunities and resources are aimed at improving competencies critical to success and succession planning.

### 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 a vested 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 marketing 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
- Audience Response Ware (ARW) technology (interactive audience response software and hardware)

<sup>11</sup> NERC’s Human Resources group focuses on learning and development for NERC staff specifically.

## Key Efforts Underway

The Training and Education team's key efforts are based on the ERO Enterprise's long-term strategic goal of increasing workforce training that develops the skills needed to perform high quality rigorous activities while keeping up with the fast changing pace of supporting technology. 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 the ARW technology;
- Developing learning products for industry-facing workshops and conferences, including the annual Standards and Compliance Workshop, the Gas Infrastructure Technical Workshop, and the annual Human Performance Conference;
- Developing CMEP e-learning modules for ERO Enterprise auditors, systems training products for data systems, including DADS and GADS Wind, and functional program training modules, such as the Cause Analysis e-learning module;
- Developing promotional and training videos, e-learning modules, and instructor-led training in support of the CORES and first Align system software release;
- Designing the ERO Enterprise Systems Training website; and
- Deploying a new LMS system as well as a new off-the-shelf content management system for the ERO Enterprise.

## 2020 Goals and Deliverables

The Training and Education group's deliverables for 2020 include:

- Development of promotional and training videos, e-learning modules and instructor-led training in support of the second release of the Align system software;
- Identification, design, development, and implementation of a management development program;
- 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; and
- Updating systems training products for data systems including GADS, GADS Wind, TADS, DADS, etc. to reflect the enhancements to the data systems.

## Future Plans

In 2021 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 CORES applications;
- Implementation of the management development program;
- 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 for the 2020 budget from the 2019 budget.

### Consultants and Contracts

The \$225k decrease is a result of (1) the movement of CE program expenses from Training and Education to PCCE; (2) a reclassification of LMS license and support costs to Office Costs; and (3) a reclassification of NERC staff technical training costs to Human Resources. A detailed breakdown of 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contract Costs*.

<b>Statement of Activities and Fixed Asset Additions</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>TRAINING AND EDUCATION</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 569,839	\$ 569,839	\$ -	\$ 1,010,158	\$ 440,319
Assessment Stabilization Reserve - Penalties	7,586	7,586	-	-	(7,586)
<b>Total NERC Funding</b>	<b>\$ 577,426</b>	<b>\$ 577,426</b>	<b>\$ -</b>	<b>\$ 1,010,158</b>	<b>\$ 432,733</b>
Third-Party Funding	-	-	-	-	-
Testing Fees	600,000	525,000	(75,000)	-	(600,000)
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	2,437	6,971	4,535	4,828	2,391
<b>Total Funding (A)</b>	<b>\$ 1,179,862</b>	<b>\$ 1,109,397</b>	<b>\$ (70,465)</b>	<b>\$ 1,014,986</b>	<b>\$ (164,876)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 203,480	\$ 220,754	\$ 17,274	\$ 212,108	\$ 8,628
Payroll Taxes	16,740	17,051	310	17,391	651
Benefits	45,441	43,759	(1,682)	52,397	6,956
Retirement Costs	22,891	24,467	1,575	23,836	945
<b>Total Personnel Expenses</b>	<b>\$ 288,553</b>	<b>\$ 306,030</b>	<b>\$ 17,477</b>	<b>\$ 305,733</b>	<b>\$ 17,180</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 12,250	\$ 12,884	\$ 634	\$ 12,250	\$ -
Travel	10,000	1,748	(8,252)	10,000	-
<b>Total Meeting Expenses</b>	<b>\$ 22,250</b>	<b>\$ 14,632</b>	<b>\$ (7,618)</b>	<b>\$ 22,250</b>	<b>\$ -</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 335,000	\$ 320,000	\$ (15,000)	\$ 110,000	\$ (225,000)
Office Rent	-	-	-	-	-
Office Costs	105,624	105,624	-	115,000	9,376
Professional Services	-	-	-	-	-
Miscellaneous	500	500	-	500	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 441,124</b>	<b>\$ 426,124</b>	<b>\$ (15,000)</b>	<b>\$ 225,500</b>	<b>\$ (215,624)</b>
<b>Total Direct Expenses</b>	<b>\$ 751,927</b>	<b>\$ 746,787</b>	<b>\$ (5,141)</b>	<b>\$ 553,483</b>	<b>\$ (198,444)</b>
<b>Indirect Expenses</b>	<b>\$ 414,042</b>	<b>\$ 472,345</b>	<b>\$ 58,303</b>	<b>\$ 442,787</b>	<b>\$ 28,745</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,165,969</b>	<b>\$ 1,219,132</b>	<b>\$ 53,162</b>	<b>\$ 996,270</b>	<b>\$ (169,700)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 13,893</b>	<b>\$ (109,735)</b>	<b>\$ (123,628)</b>	<b>\$ 18,716</b>	<b>\$ 4,824</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 13,893</b>	<b>\$ 10,072</b>	<b>\$ (3,821)</b>	<b>\$ 18,716</b>	<b>\$ 4,824</b>
<b>Total Budget (=B+C)</b>	<b>\$ 1,179,862</b>	<b>\$ 1,229,203</b>	<b>\$ 49,341</b>	<b>\$ 1,014,986</b>	<b>\$ (164,876)</b>
<b>FTEs</b>	<b>1.88</b>	<b>1.98</b>	<b>0.10</b>	<b>1.88</b>	<b>-</b>

## Administrative Programs

Administrative Programs (in whole dollars)						
	Direct Expenses and Fixed Asset Additions			FTEs		
	2019 Budget	2020 Budget	Increase (Decrease)	2019 Budget	2020 Budget	Increase (Decrease)
General & Administrative	\$ 10,654,921	\$ 11,084,094	\$ 429,172	14.10	16.92	2.82
Legal and Regulatory	3,878,791	4,588,376	709,585	13.16	15.04	1.88
Information Technology	10,686,532	11,945,975	1,259,442	23.50	24.44	0.94
Human Resources & Administration	2,562,371	2,724,553	162,182	9.40	9.40	-
Finance and Accounting	2,553,747	2,423,239	(130,508)	7.52	8.46	0.94
<b>Total Administrative Programs</b>	<b>\$ 30,336,363</b>	<b>\$ 32,766,236</b>	<b>\$ 2,429,873</b>	<b>67.68</b>	<b>74.26</b>	<b>6.58</b>

### 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; (2) Legal and Regulatory; (3) Information Technology; (4) Human Resources & 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.

#### General and Administrative

The General and Administrative 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 of (1) the CEO, the CRO, and their support staff; (2) Policy and External Affairs staff, described below; and (3) Board costs, detailed below.

#### Policy and External Affairs

The Policy and 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 policy-related matters to external audiences, including those in the United States, Canada, and Mexico. The Policy and 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 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 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.
- **International Affairs** – Serves as the liaison between NERC and non-U.S. reliability stakeholders, including Mexican federal and Canadian provincial governments and stakeholder organizations, such as NARUC's international committee, FERC, and trade association international efforts.

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

### **Legislative and Regulatory**

- Communications coordination with 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
- FERC technical conferences, meetings, and Chairman, Commissioner and staff outreach related to NERC initiatives
- Education and communication on reliability and security matters to states (NARUC)
- Building strategic partnerships with stakeholders and policymakers
- 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 IT department to improve the NERC website, reducing extraneous, outdated pages and documents, and improving search capability and improve 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
- Working with NERC departments on communication matters related to Align and adapting the Standards and Compliance Bulletin to reflect the entire ERO Enterprise footprint

### **International 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 Regional Entities with international borders
- Acting as the primary liaison with Canadian provincial, federal, and industry stakeholder groups related to reliability
- Supporting the outreach efforts to Canada and Mexico by NERC business units and the E-ISAC
- Communicating the value of an international ERO to external stakeholders and policymakers

Policy and External Affairs continues to see increased activity in the legislative and regulatory arenas. As a lobbying organization, tracking and monitoring advocacy efforts for reliability and security could potentially include reporting requirements at the state level, calling for more vigilance. Additionally,



communications activities are increasing to support further coordination across the ERO Enterprise, the growing E-ISAC, and a potential future website redesign.

### Resource Requirements

The 2.82 increase in FTEs in General and Administrative is the result of an additional FTE in the Policy and External Affairs group in support of the E-ISAC long-term strategy, and the reorganization of two positions from the Human Resources and Administrative area to Policy and External Affairs. Consultants and Contracts for General and Administrative are decreasing \$220k due to a reclassification of expenses to other departments.

### Board Costs

The following table details the Board costs included in the total General and Administrative expenses.

Board of Trustee Expenses	2019 Budget	2020 Budget	Increase (Decrease)	
<b>Meeting and Travel Expenses</b>				
Quarterly Board Meetings	\$ 185,000	\$ 185,000	\$ -	0.0%
Trustee Travel	130,000	165,000	35,000	26.9%
<b>Total</b>	<b>\$ 315,000</b>	<b>\$ 350,000</b>	<b>\$ 35,000</b>	<b>11.1%</b>
<b>Professional Services</b>				
Independent Trustee Fees	\$ 1,410,000	\$ 1,410,000	\$ -	0.0%
Trustee Search Fees	100,000	50,000	(50,000)	-50.0%
<b>Total</b>	<b>\$ 1,510,000</b>	<b>\$ 1,460,000</b>	<b>\$ (50,000)</b>	<b>-3.3%</b>
<b>Total</b>	<b>\$ 1,825,000</b>	<b>\$ 1,810,000</b>	<b>\$ (15,000)</b>	<b>-0.8%</b>

### 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 Regional Entities. Additionally, the Legal and Regulatory department includes the Internal Audit and Corporate Risk Management group, explained further below.

### Internal Audit and Corporate Risk Management

The Internal Audit and Corporate Risk Management (IACRM) group performs independent, objective activities designed to add value and improve NERC and Regional Entity operations. The group’s 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.

The Internal Audit (IA) function specifically engages with the CCC to collaborate on ERO Enterprise audits as required by ROP Sections 406, 506, and Appendix 4A. As part of IA’s audit efforts on behalf of the CCC, IA collaborates with NERC’s CMEP and ORCP teams to take an ERO Enterprise-wide approach to the

annual CMEP and ORCP self-certification process. IA, the CCC, and the Board Enterprise-wide Risk Committee (EWRC) collectively determine whether NERC and the ERO Enterprise comply with the ROP, allowing for timely reporting and consistent remediation effort, as necessary. Currently, the IA, CMEP, and ORCP teams are collaborating to eliminate real and perceived duplication of efforts among these groups with respect to Regional Entity audit and oversight activities.

The Corporate Risk Management (CRM) function is also continuing to work with the Regional Entities 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 2020 and beyond, IACRM will continue to perform risk-based audits and participate in special projects that will provide value to NERC and the ERO Enterprise. IACRM also hopes to leverage the CMEP's Align application, with minimum customization, to implement a governance, risk management, and compliance (GRC) tool to support IACRM activities.

### **Resource Requirements**

The increase of 1.88 FTEs in Legal and Regulatory is the result of an additional FTE in the Legal area in support of the E-ISAC long-term strategy and the reallocation of FTEs to realign staff with current needs. There is a \$300k increase for Contracts and Consultants as a result of a reclassification of internal controls and outside auditor support for IACRM from Finance and Accounting. A detailed breakdown of 2019 and 2020 budgeted expenses are shown in *Exhibit B – Consultant and Contract Costs*. Outside law firms and consultants supporting the Legal area are budgeted and tracked as Professional Services. The Professional Services budget for Legal and Regulatory in 2020 is unchanged from 2019.

### **Information Technology**

NERC's IT department supports the technology needs necessary to the existence and function of the organization in executing ERO statutory activities. IT also supports, configures, and secures 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 the following:

- Emphasis on reducing the NERC infrastructure and support footprint in order to allocate a larger portion of budget funding to enhance and improve the registered entity and Regional Entity experience;
- Adoption of an enterprise IT investment planning methodology that ensures only projects with compelling and approved business cases are funded; 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 Ingeniux content publication system, the Salesforce CRM system, and the BWISE GRC system.

NERC's IT department is currently focused on three key areas: ERO Enterprise new functionality, ERO Enterprise application and infrastructure support, and NERC infrastructure support.

**ERO Enterprise New Functionality.** This includes technologies designed to improve or add capability to the registered entities, Regional Entities, and NERC staff. For those projects that involve regional or registered entities, stakeholders are regularly engaged as subject matter experts 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 and CORES projects – NERC has been working closely with the Regional Entities to evaluate and implement strategic investments in tools that will replace the current three CMEP and Registration data applications used among NERC and the Regional Entities with single, common applications, known as Align for CMEP and CORES for Registration. 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.
- SAFNR upgrade – This system provides near real-time information to NERC, FERC, and the Regional Entities on current operating conditions of the BPS from a wide-area view. The upgrade will allow 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. For more information, see the *Situation Awareness* section.
- Data management system enhancements – As the grid evolves, the ERO Enterprise’s ability to collect and the quality and integration of data becomes increasingly important, requiring continued investment in enhancements to the suite of data management tools, including GADS, GADS Wind, TADS, DADS, and RADS. Additionally, technology applications are needed for the collection of new data under ROP Section 1600 data requests, including a tool for GMD data submittals as well as a system for data associated with solar energy storage (i.e., GADS Solar). For more information, see the *Reliability Assessment and Performance Analysis* section.

**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, and network, communications, business continuity, and security tools.

**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, laptops, and business continuity and security technologies.

In 2021 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, CORES, and the suite of data management tools, as well as upgrades to or replacements of RCIS, the NERC Alerts system, and the NERC website.

### **Resource Requirements**

The increase of 0.94 FTEs in IT in 2020 is the result of a contractor conversion (increase in personnel costs and a reduction in consultants and contracts expenses) for a critical role related to the Align application. There is a \$237k decrease for consultants and contracts expenses overall as a result of the contractor conversion and the reclassification of expenses to other departments. A detailed breakdown of 2019 and 2020 budgeted consultants and contracts expenses are shown in *Exhibit B – Consultant and Contract Costs*. There is a \$976k increase in Office Costs as a result of increased software license and support expenses, particularly for enhanced security, as well as additional leased audio visual and computer equipment.

## **Human Resources and Administration**

The Human Resources 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.

### **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 participate in ongoing training and development to improve competencies critical to success and succession planning. As such, NERC continues 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.

### **Compensation Strategy**

NERC relies on data and advisory from multiple perspectives to hire and retain the necessary staff to support the company's goals and objectives. Under the mandate of the 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. 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**

NERC periodically retains a vendor to conduct Board and committee effectiveness surveys to identify improvement opportunities. Human Resources will also launch additional surveys as appropriate, based on business needs, which may include periodic internal climate surveys.

### **Succession Planning**

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

### **Human Resources Products and Services Automation**

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

### **Resource Requirements**

There is a 1.88 increase in FTEs in the Human Resources and Administration area in 2020 as a result of an additional FTE in support of the increase in staffing in the E-ISAC and a contractor conversion (increase in personnel costs and a reduction in consultants and contracts expenses) for audio visual and facility security coordination. This is offset by the decrease of 1.88 FTEs as a result of the reorganization of two

positions from the Human Resources and Administrative area to Policy and External Affairs. Consultants and Contracts are increasing \$70k for this area as a result of a reclassification of expenses from Training and Education and General and Administrative. A detailed breakdown of 2019 and 2020 budgeted expenses is shown in in *Exhibit B – Consultant and Contract Costs*.

### **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, monthly financial reporting, sales and use tax, and 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**

The increase of 0.94 FTEs is due to the reallocation of resources to realign staff with current needs. There is a \$300k decrease for Consultants and Contracts in this area as a result of a reclassification of internal controls and outside auditor support for IACRM to Legal and Regulatory. A detailed breakdown of 2019 and 2020 budgeted expenses is shown in *Exhibit B – Consultant and Contact Costs*.

### **Miscellaneous Expenses**

Miscellaneous expenses include community responsibility, employee engagement, and employee rewards and recognition.

Section A – 2020 Business Plan and Budget Program Area and Department Detail

Statement of Activities and Fixed Asset Additions					
2019 Budget & Projection, and 2020 Budget					
ADMINISTRATIVE SERVICES					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection v 2019 Budget Over(Under)	Budget	2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ (1,067,980)	\$ (1,067,980)	\$ -	\$ (1,414,478)	\$ (346,499)
Assessment Stabilization Reserve - Penalties	-	-	-	-	-
<b>Total NERC Funding</b>	<b>\$ (1,067,980)</b>	<b>\$ (1,067,980)</b>	<b>\$ -</b>	<b>\$ (1,414,478)</b>	<b>\$ (346,499)</b>
Third-Party Funding	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ (1,067,980)</b>	<b>\$ (1,067,980)</b>	<b>\$ -</b>	<b>\$ (1,414,478)</b>	<b>\$ (346,499)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 11,965,297	\$ 13,017,715	\$ 1,052,418	\$ 13,070,451	\$ 1,105,154
Payroll Taxes	666,617	681,647	15,030	721,605	54,988
Benefits	1,610,374	1,671,036	60,661	1,826,687	216,312
Retirement Costs	1,032,835	1,036,060	3,225	1,146,339	113,504
<b>Total Personnel Expenses</b>	<b>\$ 15,275,124</b>	<b>\$ 16,406,457</b>	<b>\$ 1,131,333</b>	<b>\$ 16,765,082</b>	<b>\$ 1,489,958</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 455,300	\$ 458,077	\$ 2,777	\$ 456,800	\$ 1,500
Travel	570,000	611,203	41,203	650,000	80,000
<b>Total Meeting Expenses</b>	<b>\$ 1,025,300</b>	<b>\$ 1,069,280</b>	<b>\$ 43,980</b>	<b>\$ 1,106,800</b>	<b>\$ 81,500</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 3,447,763	\$ 3,379,195	\$ (68,568)	\$ 3,060,692	\$ (387,071)
Office Rent	3,335,058	3,305,058	(30,000)	3,450,468	115,410
Office Costs	4,454,347	4,568,561	114,213	5,712,971	1,258,624
Professional Services	2,507,600	2,454,500	(53,100)	2,336,600	(171,000)
Miscellaneous	77,000	87,945	10,945	77,000	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 13,821,768</b>	<b>\$ 13,795,259</b>	<b>\$ (26,509)</b>	<b>\$ 14,637,731</b>	<b>\$ 815,963</b>
<b>Total Direct Expenses</b>	<b>\$ 30,122,192</b>	<b>\$ 31,270,996</b>	<b>\$ 1,148,804</b>	<b>\$ 32,509,613</b>	<b>\$ 2,387,421</b>
<b>Indirect Expenses</b>	<b>\$ (30,336,363)</b>	<b>\$ (31,410,967)</b>	<b>\$ (1,074,604)</b>	<b>\$ (32,766,236)</b>	<b>\$ (2,429,873)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ 214,171</b>	<b>\$ 139,971</b>	<b>\$ (74,200)</b>	<b>\$ 256,623</b>	<b>\$ 42,452</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (1,067,980)</b>	<b>\$ (1,067,980)</b>	<b>\$ -</b>	<b>\$ (1,414,478)</b>	<b>\$ (346,499)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Budget (=B+C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>67.68</b>	<b>70.49</b>	<b>2.81</b>	<b>74.26</b>	<b>6.58</b>

## Section B – Supplemental Financial Information

### Breakdown by Statement of Activity Sections

The following detailed schedules support the consolidated Statement of Activities.

### Table B-1 – Operating Reserve and Assessment Analysis

Operating Reserve and Assessment Analysis						
Statutory						
	Total Reserves	Future Obligation Reserve <sup>1</sup>	Operating Contingency Reserve	System Operator Certification Reserve	CRISP Reserve	Assessment Stabilization Reserve
<b>Beginning Operating Reserves Balance - 1/1/2019</b>	<b>\$ 11,342,801</b>	<b>\$ 2,535,333</b>	<b>\$ 5,644,358</b>	<b>\$ 592,110</b>	<b>\$ 500,000</b>	<b>\$ 2,071,000</b>
<b>Generation or (Use) from 2019 Operations</b>						
From 2019 budgeted operations	\$ (1,294,975)	\$ (480,457)	\$ (963,192)	\$ 148,674	\$ -	\$ -
From 2019 approved addition/(use) of reserves	-	-	-	-	-	-
Proceeds from financing activities (non-current portion only) <sup>2</sup>	1,089,333	-	1,089,333	-	-	-
Debt service <sup>3</sup>	(394,687)	-	(394,687)	-	-	-
Other addition/(use) of reserves <sup>4</sup>	(788,366)	64,843	-	(303,209)	-	(550,000)
<b>Projected Operating Reserves - 12/31/19</b>	<b>\$ 9,954,106</b>	<b>\$ 2,119,719</b>	<b>\$ 5,375,812</b>	<b>\$ 437,575</b>	<b>\$ 500,000</b>	<b>\$ 1,521,000</b>
<b>Required Working Capital and Operating Reserves - 12/31/20</b>	<b>\$ 8,818,065</b>	<b>\$ 1,633,761</b>	<b>\$ 4,721,776</b>	<b>\$ 441,528</b>	<b>\$ 500,000</b>	<b>\$ 1,521,000</b>
Adjustment in funding to achieve required reserve balance	(1,136,041)	(485,958)	(654,036)	3,953	-	-
Penalty sanctions received 7/1/2018 - 6/30/2019 (See Table B-2)	-	-	-	-	-	-
Less: Assessment Stabilization Reserve Release - Penalties	-	-	-	-	-	-
<b>Total Adjustments to Reserves</b>	<b>\$ (1,136,041)</b>	<b>\$ (485,958)</b>	<b>\$ (654,036)</b>	<b>\$ 3,953</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Assessment Reconciliation</b>						
2020 Expenses and Capital Expenditures	\$ 83,417,476					
Less: Assessment Stabilization Reserve Release - Penalties	-					
Adjustment in funding to achieve required reserve balance	(650,083)					
Less: Other Funding Sources	(9,995,577)					
Less: Proceeds from financing activities (non-current only)	(1,338,000)					
Plus: Debt service	577,557					
<b>2020 NERC Assessment</b>	<b>\$ 72,011,373</b>					

<sup>1</sup>As further explained in the discussion of the Working Capital Reserve amount in Exhibit D, the Future Obligations Reserve offsets future, non-current liabilities.

<sup>2</sup>Proceeds from financing activities amount is equal to two-thirds of the amount financed or to be financed in the year. See Exhibit D.

<sup>3</sup>Debt Service amount is equal to Annual Payments for Debt Service less Interest Expense. See Exhibit C.

<sup>4</sup>Represents transactions recorded only on the Statement of Financial Position (balance sheet) and do not impact the Statement of Activities (income statement), including recording of capitalized leases, amortization of future obligations, and funding the 457f plan.

## Table B-2 – Penalties

### Penalty Sanctions and Allocation Method

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 approved an updated *Working Capital and Operating Reserves Policy* that was approved by FERC. This updated policy allows NERC, with Board and 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 Asset Stabilization Reserve are allocated to the following statutory programs to reduce assessments: (1) Reliability Standards and PRISM, (2) Compliance Assurance and Organization Registration and Certification, (3) Compliance Enforcement, (4) RAPA, (5) Situation Awareness, (6) Event Analysis, (7) E-ISAC (including CRISP), and (8) 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.

For the period July 1, 2018–June 30, 2019, NERC did not collect any penalty funds to deposit into the Assessment Stabilization Reserve. Also, due to reduced debt service, increased interest income, and a surplus of working capital, the 2020 assessment currently 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 in future years.

Penalty Sanctions	Date Received	Amount Received
<b>Penalties received between 7/1/2018 and 6/30/2019</b>	N/A	\$ -
		\$ -
Penalties received prior to 6/30/2018, held in the assessment stabilization reserve		\$ 1,521,000
<b>Total penalties available on 1/1/2020 to offset assessments</b>		<u>\$ 1,521,000</u>
<b>Adjustments</b>		
Total penalties released to offset assessments in the 2020 Budget		\$ -
<b>Total penalties held in Assessment Stabilization Reserve 12/31/2020</b>		<u>\$ 1,521,000</u>



**Table B-3 – Outside Funding**

<b>Outside Funding Breakdown By Program (Excludes Penalty Sanction)</b>	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
<b>Reliability Standards</b>			
Interest & Investment Income Allocation	18,884	45,862	26,978
<b>Total</b>	<b>\$ 18,884</b>	<b>\$ 45,862</b>	<b>\$ 26,978</b>
<b>Compliance Assurance, Certification, and Registration</b>			
Interest & Investment Income Allocation	\$ 33,504	\$ 55,517	\$ 22,014
<b>Total</b>	<b>\$ 33,504</b>	<b>\$ 55,517</b>	<b>\$ 22,014</b>
<b>Compliance Enforcement</b>			
Interest & Investment Income Allocation	\$ 17,056	\$ 31,379	\$ 14,323
<b>Total</b>	<b>\$ 17,056</b>	<b>\$ 31,379</b>	<b>\$ 14,323</b>
<b>Reliability Assessment and Performance Analysis</b>			
Services and Software	\$ 40,000	\$ 60,000	\$ 20,000
Interest & Investment Income Allocation	32,894	60,345	27,450
<b>Total</b>	<b>\$ 72,894</b>	<b>\$ 120,345</b>	<b>\$ 47,450</b>
<b>Personnel Certification and Continuing Education</b>			
Testing Fees	\$ 540,000	\$ 455,000	\$ (85,000)
Certificate Renewals	650,000	780,000	130,000
Continuing Education Fees	600,000	500,000	(100,000)
Interest & Investment Income Allocation	2,437	7,241	4,805
<b>Total</b>	<b>\$ 1,792,437</b>	<b>\$ 1,742,241</b>	<b>\$ (50,195)</b>
<b>Training and Education</b>			
Interest & Investment Income Allocation	\$ 2,437	4,828	\$ 2,391
<b>Total</b>	<b>\$ 2,437</b>	<b>\$ 4,828</b>	<b>\$ 2,391</b>
<b>Event Analysis</b>			
Interest & Investment Income Allocation	14,620	24,138	9,518
<b>Total</b>	<b>\$ 14,620</b>	<b>\$ 24,138</b>	<b>\$ 9,518</b>
<b>Situation Awareness</b>			
Interest & Investment Income Allocation	\$ 7,310	\$ 14,483	\$ 7,173
<b>Total</b>	<b>\$ 7,310</b>	<b>\$ 14,483</b>	<b>\$ 7,173</b>
<b>E-ISAC</b>			
Third Party Funding (CRISP)	\$ 7,486,353	\$ 7,814,577	\$ 328,224
Interest & Investment Income Allocation	55,859	142,207	86,348
<b>Total</b>	<b>\$ 7,542,213</b>	<b>\$ 7,956,784</b>	<b>\$ 414,572</b>
<b>Grand Total</b>	<b>\$ 9,501,353</b>	<b>\$ 9,995,577</b>	<b>\$ 494,224</b>

As discussed in the *Introduction and Executive Summary*, starting with the 2020 BP&B, NERC will no longer include workshop or event fees as a funding line item, but instead account for this income in meeting expenses as an offset to costs. This supports the goal of providing a total budget amount that more closely reflects the amount of annual revenues required for assessments. As such, 2019 budgeted income from workshop fees is no longer reflected in the funding line item, and meeting expenses reflect the costs net of this revenue.

**Table B-4 – Personnel**

Personnel	2019 Budget	2020 Budget	Increase (Decrease)	
Salaries	\$ 33,810,276	\$ 35,462,611	\$ 1,652,335	4.9%
Payroll Taxes	2,044,880	2,113,486	68,606	3.4%
Benefits	4,673,208	5,420,461	747,254	16.0%
Retirement	3,423,826	3,601,601	177,776	5.2%
<b>Total</b>	<b>\$ 43,952,190</b>	<b>\$ 46,598,160</b>	<b>\$ 2,645,970</b>	<b>6.02%</b>
<b>FTEs</b>	204.92	213.38	8.46	4.1%
<b>Cost per FTE</b>				
Salaries	\$ 164,993	\$ 166,195	\$ 1,202	0.7%
Payroll Taxes	9,979	9,905	(74)	-0.7%
Benefits	22,805	25,403	2,598	11.4%
Retirement	16,708	16,879	171	1.0%
<b>Total</b>	<b>\$ 214,485</b>	<b>\$ 218,381</b>	<b>\$ 3,896</b>	<b>1.82%</b>

Total salary expense is comprised of base salaries, incentive compensation, deferred compensation, employment agency fees, and temporary office expenses. The 2020 budget for base salaries assumes a 3.0% increase over actual 2019 base salaries for merit adjustments and, as requested by the Board, up to 0.5% for equity and market adjustments. The 2020 budget for incentive compensation is based on historical actuals and is comparable to prior years. The 2020 budgets for deferred compensation, employment agency fees, and temporary office expenses are generally consistent with 2019.

Benefits are budgeted to increase 16.0% primarily due to a 13.0% increase in health insurance premiums and costs for additional FTEs.

There have been no changes to NERC's retirement plans.

**Table B-5 – Meetings**

Meetings	2019 Budget	2020 Budget	Increase (Decrease)	
Meetings & Conference Calls	\$ 1,001,400	\$ 1,112,250	\$ 110,850	11.1%
Travel	2,184,000	2,211,000	27,000	1.2%
<b>Total</b>	<b>\$ 3,185,400</b>	<b>\$ 3,323,250</b>	<b>\$ 137,850</b>	<b>4.3%</b>

Meeting and travel expenses are increasing in 2020 mainly due to E-ISAC personnel increases, engagement efforts, and enhanced conference call capabilities.

**Table B-6 – Consultants and Contracts**

*Refer to Exhibit B – Consultant and Contract Costs*

**Table B-7 – Rent**

Office Rent	2019 Budget	2020 Budget	Increase (Decrease)	
Office Rent	\$ 3,122,808	\$ 3,228,468	\$ 105,660	3.4%
Maintenance	212,250	222,000	9,750	4.6%
<b>Total</b>	<b>\$ 3,335,058</b>	<b>\$ 3,450,468</b>	<b>\$ 115,410</b>	<b>3.5%</b>

**Table B-8 – Office Costs**

Office Costs	2019 Budget	2020 Budget	Increase (Decrease)	
Telephone	\$ 312,851	\$ 356,562	\$ 43,711	14.0%
Telephone Answering Service	1,200	-	(1,200)	-100.0%
Internet	241,500	269,350	27,850	11.5%
Office Supplies	175,700	250,050	74,350	42.3%
Computer Supplies	183,500	186,448	2,948	1.6%
Software License and Support	4,140,834	7,214,718	3,073,884	74.2%
Subscription and Publications	228,420	307,370	78,950	34.6%
Dues	69,611	86,050	16,439	23.6%
Postage	10,540	10,540	(0)	0.0%
Express Shipping	28,992	33,742	4,750	16.4%
Copying	117,642	80,042	(37,600)	-32.0%
Audio/Visual and Hardware Lease	752,529	1,005,501	252,972	33.6%
Equipment Repair/Service Contracts	132,497	144,000	11,503	8.7%
Bank Charges	25,000	28,000	3,000	12.0%
Merchant Card Fees	86,100	80,000	(6,100)	-7.1%
<b>Total</b>	<b>\$ 6,506,917</b>	<b>\$ 10,052,374</b>	<b>\$ 3,545,456</b>	<b>54.5%</b>

Office Supplies is increasing \$74k primarily as a result of a higher capitalization threshold established in 2018. This is offset by a decrease in fixed asset (capital) expenditures accordingly.

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 \$3.1M increase in 2020 is primarily due to a combination of an increase in these expenses in IT, particularly for enhanced security, and a reclassification of these costs from Consultants and Contracts (offset by a \$2.6M decrease in Consultants and Contracts).

Subscriptions and Publications is increasing \$79k primarily as a result of a combination of increased costs for these expenses in E-ISAC, IT, and Legal, and a reclassification of these costs from Outside Services.

Audio/Visual and Hardware Lease costs consist of lease payments for audio visual equipment, computers, laptops, servers, and switches that were leased, in lieu of purchasing, beginning in January 2017. The \$253k increase in the 2020 budget is the result of additional leased audio visual and computer equipment for the NERC Atlanta office expansion and increased FTEs in E-ISAC.

**Table B-9 – Professional Services**

Professional Services	2019 Budget	2020 Budget	Increase (Decrease)	
Independent Trustee Fees	\$ 1,410,000	\$ 1,410,000	\$ -	0.0%
Trustee Search Fees	100,000	50,000	(50,000)	-50.0%
Outside Legal	645,500	585,500	(60,000)	-9.3%
Lobbying	72,000	72,000	-	0.0%
Accounting and Auditing Fees	128,000	155,000	27,000	21.1%
Insurance Commercial	225,000	225,000	-	0.0%
Outside Services	177,100	14,100	(163,000)	-92.0%
<b>Total</b>	<b>\$ 2,757,600</b>	<b>\$ 2,511,600</b>	<b>\$ (246,000)</b>	<b>-8.9%</b>

The \$163k decrease in Outside Services is due primarily to a reclassification of these expenses to other areas.

**Table B-10 – Miscellaneous**

Miscellaneous Expenses	2019 Budget	2020 Budget	Increase (Decrease)	
Miscellaneous Expense	\$ 7,000	\$ 7,750	\$ 750	10.7%
Employee Rewards and Recognition	48,000	48,000	-	0.0%
Community Responsibility & Employee Engagement	4,500	4,500	-	0.0%
Sponsorships	22,500	22,500	-	0.0%
<b>Total</b>	<b>\$ 82,000</b>	<b>\$ 82,750</b>	<b>\$ 750</b>	<b>0.9%</b>

**Table B-11 – Other Non-Operating Expenses**

Other Non-Operating Expenses	2019 Budget	2020 Budget	Increase (Decrease)	
Property and Other Tax Expense	\$ 120,000	\$ 165,000	\$ 45,000	37.5%
Interest Expense	94,171	91,623	(2,548)	-2.7%
<b>Total</b>	<b>\$ 214,171</b>	<b>\$ 256,623</b>	<b>\$ 42,452</b>	<b>19.8%</b>

The \$45k increase in Property and Other Tax Expense is due to increased property and state excise taxes.

**Table B-12 – Fixed Assets**

Fixed Asset Additions	2019 Budget	2020 Budget	Increase (Decrease)	
Computer & Software CapEx	\$ 3,488,000	\$ 3,271,349	\$ (216,651)	-6.2%
Furniture & Fixtures CapEx	-	-	-	0.0%
Equipment CapEx	890,000	935,000	45,000	5.1%
Leasehold Improvements	400,000	500,000	100,000	25.0%
<b>Total</b>	<b>\$ 4,778,000</b>	<b>\$ 4,706,349</b>	<b>\$ (71,651)</b>	<b>-1.5%</b>

As discussed in the *Introduction and Executive Summary*, expenditures for fixed assets are budgeted to be \$72k less in 2020 compared to 2019. This decrease is primarily due to reduced spending on ERO Enterprise software projects.

**Table B-13 – 2021–2022 Projections**

Refer to the *Introduction and Executive Summary* section on pages 17–18

## Section C – Non-Statutory Activity

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NERC has no non-statutory activities.

# Section D – Consolidated Statement of Activities by Program

Consolidated Statement of Activities Program 2020 Budget	Statutory Activities														
	Statutory Total	Reliability Standards and Risk Management	Compliance Assurance, Registration, and Certification	Event Analysis	Compliance Enforcement	Personnel Certification	Training and Education	Reliability Assessment and Performance Analysis	Situation Awareness	E-ISAC (Including CRISP)	General and Administrative (Includes Executive and Gov't Relations)	Legal and Regulatory	Information Technology	Human Resources and Administration	Accounting and Finance
<b>Funding</b>															
<b>ERO Funding</b>															
NERC Assessments	\$ 72,011,373	\$ 8,203,710	\$ 12,236,583	\$ 4,709,719	\$ 6,694,193	\$ -	\$ 1,010,158	\$ 13,001,958	\$ 4,241,524	\$ 23,328,006	\$ (1,414,478)	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserve - Penalties	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total NERC Funding</b>	<b>\$ 72,011,373</b>	<b>\$ 8,203,710</b>	<b>\$ 12,236,583</b>	<b>\$ 4,709,719</b>	<b>\$ 6,694,193</b>	<b>\$ -</b>	<b>\$ 1,010,158</b>	<b>\$ 13,001,958</b>	<b>\$ 4,241,524</b>	<b>\$ 23,328,006</b>	<b>\$ (1,414,478)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Third-Party Funding	\$ 7,814,577	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,814,577	\$ -	\$ -	\$ -	\$ -	\$ -
Testing Fees	1,735,000	-	-	-	-	1,735,000	-	-	-	-	-	-	-	-	-
Services & Software	60,000	-	-	-	-	-	-	60,000	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest & Investment Income	386,000	45,862	55,517	24,138	31,379	7,241	4,828	60,345	14,483	142,207	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 82,006,951</b>	<b>\$ 8,249,572</b>	<b>\$ 12,292,101</b>	<b>\$ 4,733,857</b>	<b>\$ 6,725,572</b>	<b>\$ 1,742,241</b>	<b>\$ 1,014,986</b>	<b>\$ 13,122,303</b>	<b>\$ 4,256,006</b>	<b>\$ 31,284,791</b>	<b>\$ (1,414,478)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>															
<b>Personnel Expenses</b>															
Salaries	\$ 35,462,611	\$ 2,622,756	\$ 3,646,298	\$ 1,651,222	\$ 1,829,637	\$ 372,765	\$ 212,108	\$ 3,662,883	\$ 900,228	\$ 7,494,261	\$ 3,511,022	\$ 2,957,499	\$ 3,971,134	\$ 1,324,004	\$ 1,306,791
Payroll Taxes	2,113,486	165,506	222,053	94,949	113,039	24,774	17,391	233,091	59,293	461,786	172,264	161,986	242,980	70,580	73,794
Benefits	5,420,461	416,307	686,630	259,683	230,971	64,235	52,397	595,261	227,569	1,060,720	480,745	344,613	609,073	207,069	185,187
Retirement Costs	3,601,601	290,052	404,705	181,837	197,746	40,459	23,836	407,604	100,163	808,861	149,671	316,578	433,924	110,100	136,066
<b>Total Personnel Expenses</b>	<b>\$ 46,598,160</b>	<b>\$ 3,494,622</b>	<b>\$ 4,959,686</b>	<b>\$ 2,187,691</b>	<b>\$ 2,371,393</b>	<b>\$ 502,233</b>	<b>\$ 305,733</b>	<b>\$ 4,898,839</b>	<b>\$ 1,287,253</b>	<b>\$ 9,825,628</b>	<b>\$ 4,313,703</b>	<b>\$ 3,780,676</b>	<b>\$ 5,257,112</b>	<b>\$ 1,711,753</b>	<b>\$ 1,701,839</b>
<b>Meeting Expenses</b>															
Meetings & Conference Calls	\$ 1,112,250	\$ 59,800	\$ 89,200	\$ 33,600	\$ 6,200	\$ 34,400	\$ 12,250	\$ 286,800	\$ 30,000	\$ 103,200	\$ 338,400	\$ 13,600	\$ 83,800	\$ 13,600	\$ 7,400
Travel	2,211,000	220,000	400,000	150,000	55,000	30,000	10,000	300,000	35,000	361,000	408,000	75,000	100,000	27,000	40,000
<b>Total Meeting Expenses</b>	<b>\$ 3,323,250</b>	<b>\$ 279,800</b>	<b>\$ 489,200</b>	<b>\$ 183,600</b>	<b>\$ 61,200</b>	<b>\$ 64,400</b>	<b>\$ 22,250</b>	<b>\$ 586,800</b>	<b>\$ 65,000</b>	<b>\$ 464,200</b>	<b>\$ 746,400</b>	<b>\$ 88,600</b>	<b>\$ 183,800</b>	<b>\$ 40,600</b>	<b>\$ 47,400</b>
<b>Operating Expenses, excluding Depreciation</b>															
Consultants & Contracts	\$ 12,435,902	\$ 40,320	\$ 90,320	\$ 10,000	\$ -	\$ 282,000	\$ 110,000	\$ 752,570	\$ -	\$ 8,090,000	\$ 20,000	\$ 300,000	\$ 1,805,692	\$ 760,000	\$ 175,000
Office Rent	3,450,468	-	-	-	-	-	-	-	-	-	3,450,468	-	-	-	-
Office Costs	10,052,374	50,050	341,358	44,550	389,208	197,400	115,000	513,304	1,225,844	1,462,689	559,900	65,100	4,698,871	150,600	238,500
Professional Services	2,511,600	-	-	-	-	-	-	-	-	175,000	1,714,000	353,500	-	9,100	260,000
Miscellaneous	82,750	500	750	500	500	-	500	2,000	500	500	23,000	500	500	52,500	500
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 28,533,094</b>	<b>\$ 90,870</b>	<b>\$ 432,428</b>	<b>\$ 55,050</b>	<b>\$ 389,708</b>	<b>\$ 479,400</b>	<b>\$ 225,500</b>	<b>\$ 1,267,874</b>	<b>\$ 1,226,344</b>	<b>\$ 9,728,189</b>	<b>\$ 5,767,368</b>	<b>\$ 719,100</b>	<b>\$ 6,505,063</b>	<b>\$ 972,200</b>	<b>\$ 674,000</b>
<b>Total Direct Expenses</b>	<b>\$ 78,454,504</b>	<b>\$ 3,865,292</b>	<b>\$ 5,881,314</b>	<b>\$ 2,426,341</b>	<b>\$ 2,822,301</b>	<b>\$ 1,046,033</b>	<b>\$ 553,483</b>	<b>\$ 6,753,513</b>	<b>\$ 2,578,597</b>	<b>\$ 20,018,016</b>	<b>\$ 10,827,471</b>	<b>\$ 4,588,376</b>	<b>\$ 11,945,975</b>	<b>\$ 2,724,553</b>	<b>\$ 2,423,239</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ 4,206,476</b>	<b>\$ 5,092,050</b>	<b>\$ 2,213,935</b>	<b>\$ 2,878,115</b>	<b>\$ 664,180</b>	<b>\$ 442,787</b>	<b>\$ 5,534,837</b>	<b>\$ 1,328,361</b>	<b>\$ 10,405,494</b>	<b>\$ (11,084,094)</b>	<b>\$ (4,588,376)</b>	<b>\$ (11,945,975)</b>	<b>\$ (2,724,553)</b>	<b>\$ (2,423,239)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ 256,623</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 256,623</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 78,711,127</b>	<b>\$ 8,071,768</b>	<b>\$ 10,973,364</b>	<b>\$ 4,640,276</b>	<b>\$ 5,700,417</b>	<b>\$ 1,710,214</b>	<b>\$ 996,270</b>	<b>\$ 12,288,351</b>	<b>\$ 3,906,958</b>	<b>\$ 30,423,510</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 3,295,824</b>	<b>\$ 177,804</b>	<b>\$ 1,318,736</b>	<b>\$ 93,581</b>	<b>\$ 1,025,155</b>	<b>\$ 32,027</b>	<b>\$ 18,716</b>	<b>\$ 833,953</b>	<b>\$ 349,049</b>	<b>\$ 861,280</b>	<b>\$ (1,414,478)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 4,706,349</b>	<b>\$ 177,804</b>	<b>\$ 1,318,736</b>	<b>\$ 93,581</b>	<b>\$ 1,025,155</b>	<b>\$ 28,074</b>	<b>\$ 18,716</b>	<b>\$ 833,953</b>	<b>\$ 349,049</b>	<b>\$ 861,280</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Budget (=B+C)</b>	<b>\$ 83,417,476</b>	<b>\$ 8,249,572</b>	<b>\$ 12,292,101</b>	<b>\$ 4,733,857</b>	<b>\$ 6,725,572</b>	<b>\$ 1,738,288</b>	<b>\$ 1,014,986</b>	<b>\$ 13,122,303</b>	<b>\$ 4,256,006</b>	<b>\$ 31,284,791</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Working Capital (=A-B-C)</b>	<b>\$ (1,410,525)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,953</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (1,414,478)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>213.38</b>	<b>17.86</b>	<b>21.62</b>	<b>9.40</b>	<b>12.22</b>	<b>2.82</b>	<b>1.88</b>	<b>23.50</b>	<b>5.64</b>	<b>44.18</b>	<b>16.92</b>	<b>15.04</b>	<b>24.44</b>	<b>9.40</b>	<b>8.46</b>

# Exhibit A – Application of NERC Section 215 Criteria

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## DISCUSSION OF HOW THE NERC MAJOR ACTIVITIES IN THE 2020 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 2020 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.<sup>12</sup> NERC submitted the written criteria to the Commission in a compliance filing dated February 21, 2013 in Docket No. FA11-21-000.<sup>13</sup> The Commission approved the NERC written criteria, with modifications, in an order issued in that docket on April 18, 2013.<sup>14</sup> The NERC written criteria as used in this Exhibit incorporate the modifications specified in the Compliance Order.<sup>15</sup>

### II. Reliability Standards and Power Risk Issue Strategic Management 2020 Major Activities

The major activities of Reliability Standards and Power Risk Issue Strategic Management (PRISM) are described at pages 19–21 of the 2020 Business Plan and Budget. 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. 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.

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

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<sup>12</sup> *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.

<sup>13</sup> *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 (“February 1, 2013 Compliance Filing”).

<sup>14</sup> *North American Electric Reliability Corporation, Order on Compliance*, 143 FERC ¶ 61,052 (2013) (“Compliance Order”).

<sup>15</sup> 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.



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 NERC technical committees and subcommittees, and ensures that the processes to address Standards Authorization Requests and Requests for Interpretations of standards are coordinated and efficient.

For 2020, 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 Commission directives and responding to Commission orders as necessary through the standards process; (3) continuing to implement the results of the comprehensive review of standards completed in 2018, by initiating projects to modify or retire standards, including analyzing the need to retire or enhance standards requirements based on operational experience; 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. Also in 2020, 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 a 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. The PRISM group will continue standards training activities for NERC staff, expand its analysis for the efficacy of standards and emerging technologies affecting the BPS, and coordinate with the Reliability Issues Steering Committee (RISC) on alignment of identified risks and mitigating activities.

The major activities of the Reliability Standards 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 2020 Major Activities**

The major activities of Compliance Assurance, Organization Registration and Certification, and Compliance Enforcement are described on pages 23–27 and 29–30 of the 2020 Business Plan and Budget. This Program Area is comprised of (1) Compliance Assurance, (2) Organization Registration and Certification, and (3) Compliance Enforcement.

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 entire 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 according to their specific facts and circumstances, developing customized compliance oversight plans (COPs) for each registered entity based on its inherent risk assessment (IRA) and other factors; (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 Compliance Monitoring Group (NERC and Regional Entity collaboration group), NERC Compliance and Certification Committee (CCC), and NERC Critical Infrastructure Protection Committee (CIPC). Ensuring successful implementation of the risk-based CMEP is the priority of Compliance Assurance’s oversight plan for the Regional Entities. Compliance Assurance provides training to Regional Entity staffs on the elements of risk-based compliance monitoring, including enhancements to registered entities’ IRAs, internal controls reviews, COP

development, and Reliability Standards monitoring. Compliance Assurance is also involved, with the Regional Entities, in development of the ERO Enterprise-wide Align application (CMEP Technology Project).

The ongoing and new major activities of the Compliance Assurance group for 2020 will include: (1) 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; (2) working with NERC Enforcement and IT and with Regional Entities to implement the Align tool; (3) supporting the continued successful implementation of CIP V5 standards and subsequent enhancements as they become effective; (4) monitoring and supporting effective implementation and monitoring of the Physical Security Reliability Standard; (5) enhancing and implementing training to support monitoring of compliance with Reliability Standards, integrating principles from the Compliance Monitoring Competency Guide; (6) continuing to provide feedback to the Reliability Standards program through coordination between the standards and compliance functions to allow 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; (7) supporting international CMEP activities including reliability and security subject matter expertise and outreach; (8) providing support and leadership to applicable committees and subcommittees including the CIPC and the CCC. Additionally, in connection with dissolution of the SPP Regional Entity, NERC, through the Compliance Assurance group, will continue to act as the Compliance Enforcement Authority (CEA) with respect to the SPP Regional Transmission Organization registered functions until the planned transition of CEA responsibilities to Midwest Reliability Organization in 2020.

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. This includes responding to industry changes requiring Certification review, including control center relocations, energy management system replacements, and RC, BA and TOP footprint changes. Organization Registration and Certification work 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 workshops and other forums as well as on an individual basis with entities. Organization Registration and Certification is involved in development and implementation of both the Align and the Centralized Organization Registration ERO System (CORES) applications.

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 procedures; 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 2020, the major activities of Compliance Enforcement will include: (1) identifying and mitigating the greatest risks to reliability and security; (2) supporting development and implementation of the Align tool; (3) streamlining minimal risk noncompliances, including Compliance Exceptions and the self-logging program; (4) aligning the risk assessment process and educating relevant parties; and (5) maturing the Coordinated Oversight program for MRREs.

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?

- 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 2020 Major Activities**

The major activities of Reliability Assessments and Performance Analysis (RAPA) are described at pages 32–37 of the 2020 Business Plan and Budget. RAPA is comprised of the Risk Identification and Mitigation Department, which in turn is comprised of the Reliability Assessments and Technical Committees (RATC) group and the Performance Analysis (PA) group; and the Engineering and Standards department, which in turn is comprised of the Power System Analysis (PSA) group and the Advanced System Analytics and Modeling (ASAM) group.

The RATC group, which includes the NERC staff secretaries of the Operating Committee (OC), Planning Committee (PC), and CIPC, 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. 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, the *State of Reliability Report*, and Special Reliability Assessments that are selected based on high risk issues requiring an independent assessment from the ERO. The NERC staff secretaries for the NERC technical committees coordinate and administer the activities of these committees, which include providing oversight, guidance, and leadership essential to enhancing BPS reliability. In addition to developing the annual and other assessments, the major ongoing activities of the RATC include focusing on effective Essential Reliability Standards (ERS), advancing the value of the seasonal reliability assessments, advancing probabilistic assessments and evaluations of energy assurance, and enhancing ERO Enterprise-wide effectiveness and efficiency of reliability assurance-related functions. Activities in 2020 will include a Special Reliability Assessment on electricity storage, an interconnection-wide short circuit study and report, and implementation of an effectiveness and efficiency strategy for NERC’s committee structure. The RATC group is also implementing the research work plan concerning geomagnetic disturbance effects that was developed and submitted to the

Commission pursuant to Order No. 830, including collection of data pursuant to an ROP Section 1600 data request and other means.

PA monitors the performance of and identifies risks to reliability of the BPS through analyzing data from industry and measuring historic trends, in five areas of BPS operations: transmission, conventional generation, wind generation, protection system misoperations, and demand response. 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. To evaluate reliability trends that identify reliability risks, PA analyzes data in the Generation Availability Data System (GADS), Transmission Availability Data System (TADS), and Demand Response Availability System (DADS), as well as reliability metrics and protection and control system misoperations data.

PSA provides 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 RERC 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; and assures that the BES electrical elements necessary for reliable operation are identified and subject to Reliability Standards. PSA's ongoing major activities include developing technical analyses in key reliability area to address areas of concern, 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.

ASAM provides support for development and improvement of long-term, sustainable interconnection-based power flow, dynamic, and load models that reflect actual BES reliability performance and dynamic conditions. 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; and promotes understanding of the need and available methods for probabilistic studies to augment deterministic studies in system planning. ASAM provides advanced statistical analysis support to RERC's *State of Reliability Report* and reliability assessments; PSA's interconnection-wide analysis of frequency response and other parameters; and PRISM's analytical review of Reliability Standard effectiveness. ASAM's ongoing major activities include providing industry insight on modeling improvements through a State of Modeling report; in coordination with the PC's 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 the reliable integration of increased levels of Distributed Energy Resources; supporting industry adoption and advancement of synchrophasor technology through the PC's Synchronized Measurement Subcommittee; supporting industry understanding and expertise in power plant modeling through the PC's 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 designees; addressing deficiencies in interconnection-wide models and providing industry education on key modeling topics; coordinating with the PC's Methods for Establishing Interconnection Reliability Operating Limits (IROLs) Task Force and supporting improvements to the

methods, practice, and tools used to establish IROs; conducting a Composite Reliability Study using probabilistic or near-probabilistic methods for transmission and resources; conducting a WECC/NERC Battery Study of the Western Interconnection to determine the adequacy of battery energy injection to support frequency response, steady-state and dynamic support, and primary frequency reserve margin; and conducting advanced statistical studies in support of the Standards Efficiency Review and the *State of Reliability Report*.

The RAPA groups work closely with other governmental and industry organizations, including the U.S. Department of Energy, Electric Power Research Institute, Institute of Electrical and Electronics Engineers, Institute of Nuclear Power Operations, North American Transmission Forum, North American Generators Forum, Interstate Natural Gas Association of America, Natural Gas Supply Association, Canadian Electricity Association, and International Council on Large Electric Systems.

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?
- 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.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?

- 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 major activities of the RAPA program are §801-806, §809-810, and Appendix 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 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 2020 Major Activities**

The major activities of Situation Awareness are described at pages 39–41 of the 2020 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 14 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 OC’s Operating Reliability 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 the Resource Adequacy (Area Control Error Frequency) Tool; Inadvertent Interchange; FNet; Intelligent Alarms Tool; PowerIQ and PowerRT tools; Situation Awareness for NERC, FERC, and the Regional Entities (SAFNR); Reliability Coordinator Information System (RCIS); NERC Alerts (secure alerting system); and the Process Information (PI) Historian System.

The ongoing and new major activities of the Situation Awareness department for 2020 include: ensuring that the ERO is aware of all BES events above a threshold of impact; 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 §810 of the ROP 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; evaluating the



importance of having visibility and understanding of the reliability or availability of natural gas and its interdependency with electrical generation; and developing and implementing upgrades to SAFNR. During 2020, Situation Awareness will continue the implementation of the upgraded SAFNR system and development of any needed enhancements, as well as upgrading the video wall in the NERC situational awareness room; enhancing natural gas situational awareness; and working with the 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 provision for these major activities is §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 2020 Major Activities**

The major activities of Event Analysis are described at pages 43–44 of the 2020 Business Plan and Budget. The Event Analysis group performs assessments of the reliability and adequacy of the BES to identify 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 or retire Reliability Standards or consider new Reliability Standards. Event Analysis analyzes and determines the causes of

events, promptly assures tracking of corrective actions to prevent recurrence, and provides lessons learned to the industry. Event Analysis analyzes all 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 approximately 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 BES 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 NERC OC's Event Analysis Subcommittee, the WECC Human Performance Working Group, and others. Additionally, Event Analysis supports compliance and standards training initiatives and trending and analysis to identify emerging reliability risks.

The ongoing and new major activities for 2020 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 training (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 Human Performance Conference. (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 2020, Event Analysis will focus on updating and upgrading data collection and shortage capabilities and capacity for the Event Analysis Management System (TEAMS); as well as working to develop a link between performance and event analysis data to enhance the availability to conduct effective event analyses and to identify key areas for trend analyses across multiple databases.

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 §801-811 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 2020 Major Activities**

The major activities of the Electricity Information Sharing and Analysis Center (E-ISAC) are described at pages 46–51 of the 2020 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. E-ISAC also supports an annual grid security conference and a biennial Grid Security Exercise.

The E-ISAC’s major activities for 2020 are focused on three areas: (1) Engagement with industry participants using the E-ISAC Portal as the primary tool for communication to promote cyber and physical security risk identification, sharing, analysis, and mitigation. The E-ISAC also strives to strengthen relationships with the government intelligence community, with the goal of increased access to government-informed threat information and analysis. (2) Information sharing, including developing and implementing high priority notification procedures, using automated information sharing technology, improving E-ISAC Portal functionality, and improving industry personnel’s access to classified information. (3) Analysis—the E-ISAC publishes reports, bulletins, and advisories, conducts monthly webinars, and convenes experts for classified and unclassified briefings with members. These activities provide information obtained through analysis by E-ISAC cyber and physical security and threat intelligence teams, as well as independent analysis from members, government, the cross-sector community, strategic vendors, and other partners.

- 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 2020 Major Activities**

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

The major activities of the PCCE group are described at pages 53–54 of the 2020 Business Plan and Budget. The System Operator Certification program ensures personnel operating the BPS have the skills, training

and qualifications needed to operate the system reliably. This program maintains the credentials required to work in various industry areas across North America for over 7,500 system operators. NERC’s System Operator Certification exam prepares operators for complying with the requirements of Reliability Standards and appropriately operating the BPS during normal and emergency operations. Credential maintenance of the System Operator Certification program is accomplished by obtaining CE Hours. The Continuing Education Program approves CE providers and their courses. NERC’s OC Personnel Subcommittee provides oversight of the CE Program.

Major ongoing and new activities of the PCCE 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 (credential maintenance requirements); reinstatement of Provider Renewal Audits; revising the CE Program Manual; and continued improvements to the System Operator Certification Continuing Education Database to enhance user experiences.

The major activities of the PCCE 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 2020 Major Activities**

The major activities of Training and Education are described at pages 56–57 of the 2020 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 learning products for industry-facing workshops and conferences, including the annual Standards and Compliance Workshop, the Gas Infrastructure Technical Workshop, and the Human Performance Conference; developing CMEP e-learning modules for ERO Enterprise auditors; developing and updating systems training products for data systems (GADS, GADS Wind, TADS, DADS); developing learning products in support of the implementation of Align and CORES; designing and developing the ERO Enterprise training website; development and implementation of a management development program; and implementing training and adoption for the new Learning Management System among ERO Enterprise staff.

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 2020 Major Activities**

NERC’s Administrative Services Departments are General and Administrative, Legal and Regulatory, Information Technology (IT), Human Resources and Administration, and Finance and Accounting. The major activities of these departments are described at pages 59–65 of the 2020 Business Plan and Budget.

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

Legal and Regulatory provides legal support to the organization, including management and the NERC program areas. General corporate 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 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 activities, 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 three areas: (1) developing ERO Enterprise new functionality, including Align, CORES, the SAFNR upgrade, enhancements to data management systems (GADS, GADS Wind, TADS, DADS and the Reliability Assessment Data System), and technology applications for collection of data under ROP Section 1600 data requests); (2) ERO Enterprise application and infrastructure support; and (3) NERC infrastructure support.

Human Resources 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 office locations, and meeting planning and coordination. Under the direction of the NERC Board Corporate Governance and Human Resources Committee, Human Resources and Administration develops compensation strategy and performs or obtains (through consultants) market compensation studies, effectiveness studies, and other compensation and staffing related studies 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, insurance, and development of the annual business plan and budget.

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)<sup>16</sup> 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?

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<sup>16</sup> 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.

- 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?<sup>17</sup>
  - 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:
    - 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.

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<sup>17</sup> 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.

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 – Consultant and Contract Costs

Consultants & Contracts	2019 Budget	2020 Budget	Increase (Decrease)
<b>Reliability Standards</b>			
Standards Balloting System Maintenance and Enhancements	\$ 50,000	\$ 40,320	\$ (9,680)
<b>Total</b>	<b>\$ 50,000</b>	<b>\$ 40,320</b>	<b>\$ (9,680)</b>
<b>Compliance Assurance and Organization Registration and Certification</b>			
Compliance Assurance Program Support	\$ 50,000	\$ 50,000	\$ -
BESnet Maintenance and Enhancements	\$ -	\$ 40,320	\$ 40,320
<b>Total</b>	<b>\$ 50,000</b>	<b>\$ 90,320</b>	<b>\$ 40,320</b>
<b>Compliance Enforcement</b>			
CRATS Maintenance	\$ 161,000	\$ -	\$ (161,000)
<b>Total</b>	<b>\$ 161,000</b>	<b>\$ -</b>	<b>\$ (161,000)</b>
<b>Reliability Assessment and Performance Analysis</b>			
RADS Maintenance and Enhancements	\$ -	\$ 40,320	\$ 40,320
Reliability Effects of GMD	\$ 200,000	\$ 100,000	\$ (100,000)
Environmental Regulatory Analysis	\$ 250,000	\$ 225,000	\$ (25,000)
Probabilistic Analysis	\$ 75,000	\$ 75,000	\$ -
Emerging Technology Analysis	\$ 100,000	\$ 100,000	\$ -
Power System Analysis Support	\$ -	\$ 63,000	\$ 63,000
GADS/TADS/DADS Support	\$ 653,565	\$ 149,250	\$ (504,315)
<b>Total</b>	<b>\$ 1,278,565</b>	<b>\$ 752,570</b>	<b>\$ (525,995)</b>
<b>Event Analysis</b>			
Event Analysis Review Support	\$ -	\$ 10,000	\$ 10,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>
<b>Situation Awareness</b>			
Reliability Tools	\$ 1,280,990	\$ -	\$ (1,280,990)
<b>Total</b>	<b>\$ 1,280,990</b>	<b>\$ -</b>	<b>\$ (1,280,990)</b>
<b>E-ISAC</b>			
Security Consulting	\$ 33,000	\$ 35,000	\$ 2,000
GridEx Support	\$ 550,000	\$ 275,000	\$ (275,000)
Program-Level Capabilities	\$ 725,000	\$ 420,000	\$ (305,000)
Techology Support	\$ -	\$ 582,500	\$ 582,500
Portal Improvement	\$ 462,500	\$ 50,000	\$ (412,500)
Events and Outreach	\$ 50,000	\$ 50,000	\$ -
CRISP	\$ 6,457,500	\$ 6,677,500	\$ 220,000
<b>Total</b>	<b>\$ 8,278,000</b>	<b>\$ 8,090,000</b>	<b>\$ (188,000)</b>
<b>Personnel Certification</b>			
System Operator Testing Expenses	\$ 62,000	\$ 62,000	\$ -
System Operator Examination Development	\$ 50,000	\$ 50,000	\$ -
Continuing Education Program	\$ 85,000	\$ 95,000	\$ 10,000
SOCCEd Database Improvements	\$ 50,000	\$ 75,000	\$ 25,000
<b>Total</b>	<b>\$ 247,000</b>	<b>\$ 282,000</b>	<b>\$ 35,000</b>
<b>Training and Education</b>			
ERO Enterprise Learning Portal	\$ 105,000	\$ -	\$ (105,000)
ERO Enterprise and Industry Course Development	\$ 110,000	\$ 110,000	\$ -
NERC Staff Technical Training	\$ 35,000	\$ -	\$ (35,000)
<b>Total</b>	<b>\$ 250,000</b>	<b>\$ 110,000</b>	<b>\$ (140,000)</b>
<b>General and Administrative</b>			
Communications Support	\$ 20,000	\$ 20,000	\$ -
ERO Enterprise Effectiveness Survey	\$ 20,000	\$ -	\$ (20,000)
Management Consulting	\$ 200,000	\$ -	\$ (200,000)
<b>Total</b>	<b>\$ 240,000</b>	<b>\$ 20,000</b>	<b>\$ (220,000)</b>
<b>Information Technology</b>			
Applications Enhancements, Support, and Ongoing Operations	\$ 2,042,763	\$ 1,805,692	\$ (237,071)
<b>Total</b>	<b>\$ 2,042,763</b>	<b>\$ 1,805,692</b>	<b>\$ (237,071)</b>
<b>Human Resources</b>			
Training and Development	\$ 400,000	\$ 500,000	\$ 100,000
Compensation Consulting	\$ 225,000	\$ 125,000	\$ (100,000)
Employee, Industry, and Board Surveys	\$ 40,000	\$ 100,000	\$ 60,000
HR Consulting Services	\$ 25,000	\$ 35,000	\$ 10,000
<b>Total</b>	<b>\$ 690,000</b>	<b>\$ 760,000</b>	<b>\$ 70,000</b>
<b>Finance and Accounting</b>			
Internal Controls and Outside Auditor Consulting Support	\$ 300,000	\$ -	\$ (300,000)
Finance and Accounting Support	\$ 175,000	\$ 175,000	\$ -
<b>Total</b>	<b>\$ 475,000</b>	<b>\$ 175,000</b>	<b>\$ (300,000)</b>
<b>Legal &amp; Regulatory</b>			
Internal Controls and Outside Auditor Consulting Support	\$ -	\$ 300,000	\$ 300,000
<b>Total</b>	<b>\$ -</b>	<b>\$ 300,000</b>	<b>\$ 300,000</b>
<b>Total Consultants &amp; Contracts</b>	<b>\$ 15,043,318</b>	<b>\$ 12,435,902</b>	<b>\$ (2,607,416)</b>

## Exhibit C – Capital Financing

The company initiated a capital financing program in January 2014 as a funding source for major software application development projects that primarily benefit the ERO Enterprise. The total size of the original non-revolving credit facility was \$7.5M and was used to finance a portion of NERC's capital expenditures (including IT hardware and software application development costs) made through December 2016. A similar non-revolving credit facility was closed in November 2016, totaling \$5.0M, and is available to finance certain capital expenditures made from January 2017 to December 2019. The interest rate for both credit facilities is floating and equal to LIBOR plus 275 basis points. NERC projects the average interest rate during 2020 will be 6.5%. Authorized annual borrowings under the facilities are limited to the amount approved by the Board and FERC in each year's BP&B. Borrowings under the credit facilities are amortized over a three-year period, and can be prepaid without penalty.

As discussed in the *Introduction and Executive Summary* and shown in the table below, NERC has a proposed 2020 capital (fixed asset) budget of approximately \$4.7M, of which it is proposing to finance \$2.0M.

NERC Capital Budget	2019 Budget	2020 Budget	Increase(Decrease)	
ERO Application Development	\$ 3,268,000	\$ 2,007,000	\$ (1,261,000)	-38.6%
Hardware (storage, servers)	565,000	685,000	120,000	21.2%
Other Equipment	425,000	250,000	(175,000)	-41.2%
NERC Capital Software	120,000	1,264,349	1,144,349	953.6%
Leasehold Improvements	400,000	500,000	100,000	25.0%
<b>Total</b>	<b>\$ 4,778,000</b>	<b>\$ 4,706,349</b>	<b>\$ (71,651)</b>	<b>-1.5%</b>

The tables below show projected year-end outstanding debt and the future annual payments for debt service.

	Year-End Outstanding Debt Balance				
	Prior Years	2019	2020	2021	2022
	Actual	Projected	Budget	Projected	Projected
Prior Years (2016 - 2018 Borrowings)	\$ 427,578	\$ 32,890	\$ -	\$ -	\$ -
2019 Projection	-	1,634,000	1,089,333	544,667	-
2020 Budgeted	-	-	2,007,000	1,338,000	669,000
2021 Projected	-	-	-	1,300,000	866,667
2022 Projected	-	-	-	-	-
<b>Total Outstanding Balance</b>	<b>\$ 427,578</b>	<b>\$ 1,666,890</b>	<b>\$ 3,096,333</b>	<b>\$ 3,182,667</b>	<b>\$ 1,535,667</b>

	Future Annual Payments for Debt Service			
	2019	2020	2021	2022
	Projected	Budget	Projected	Projected
Prior Years - Principal	\$ 394,688	\$ 32,890	\$ -	\$ -
2019 Projection	-	544,667	544,667	544,667
2020 Budgeted	-	-	669,000	669,000
2021 Projected	-	-	-	433,333
2022 Projected	-	-	-	-
Interest Expense	13,708	91,626	180,670	172,644
<b>Total Principal and Interest Costs</b>	<b>\$ 408,396</b>	<b>\$ 669,183</b>	<b>\$ 1,394,337</b>	<b>\$ 1,819,644</b>

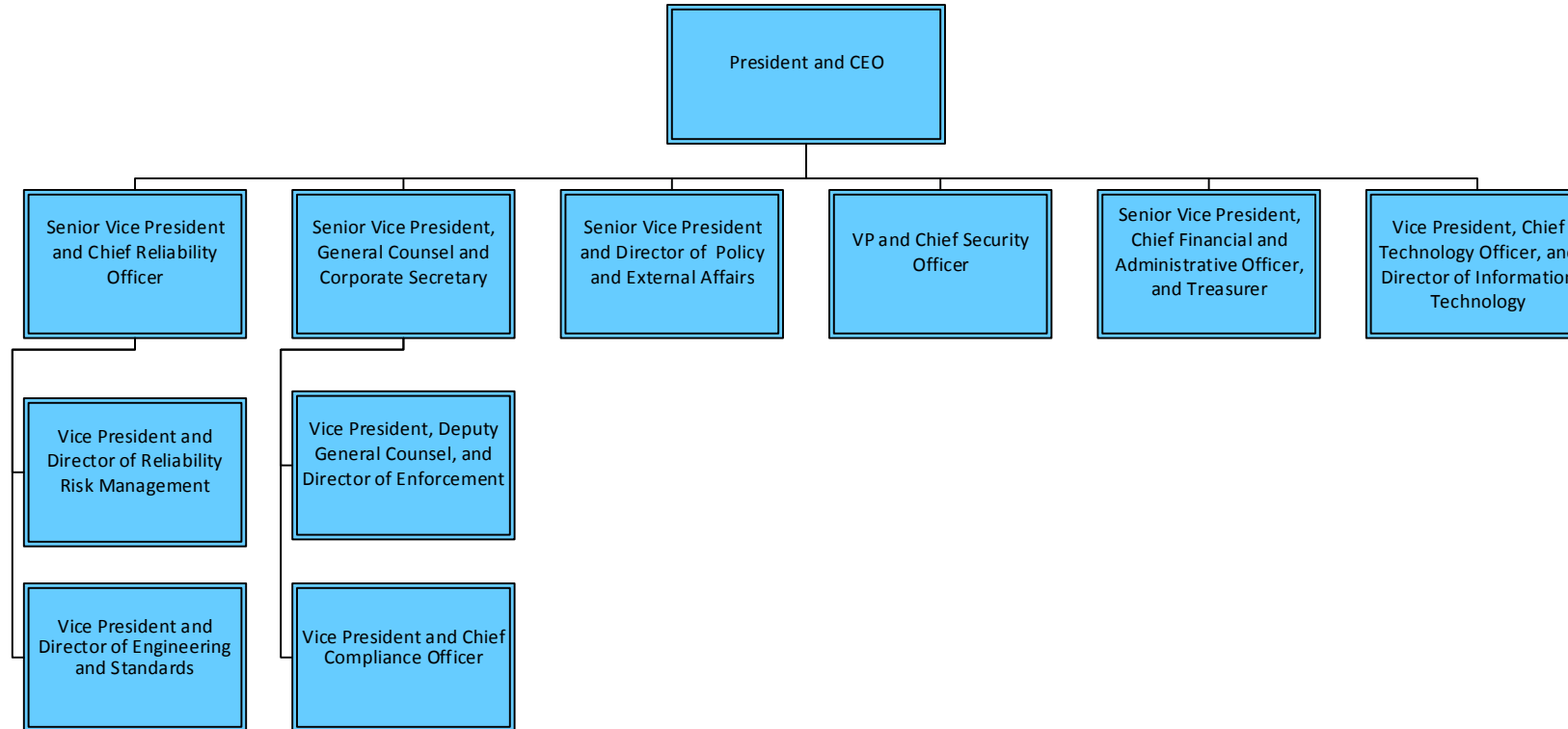
## Exhibit D – Reserve Amounts

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NERC is proposing an overall reserve budget of \$8.8M across all categories of reserves. This represents a decrease of \$247k (2.9%) from the total reserve amounts included in NERC's 2019 budget. The reserve categories are as follows:

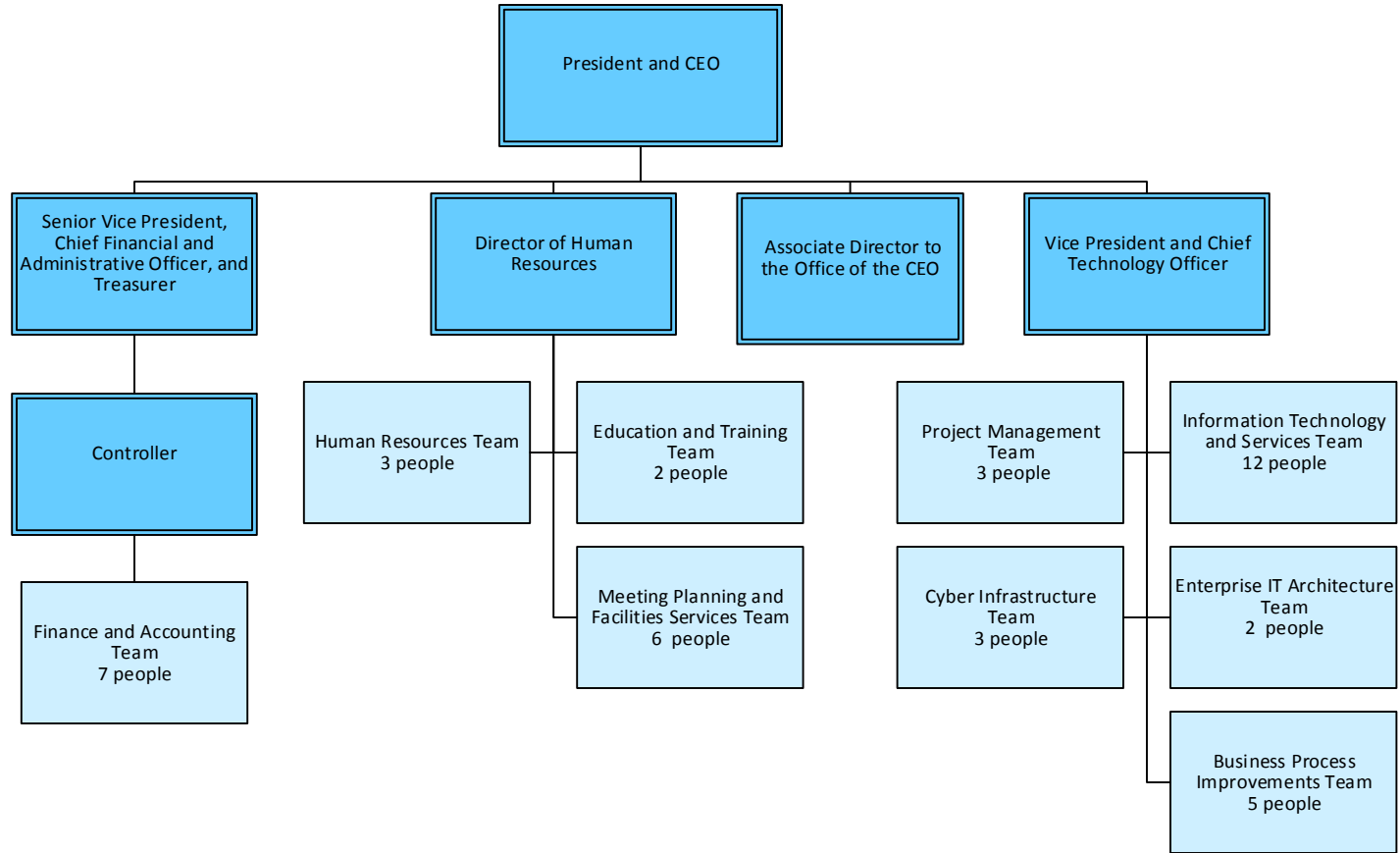
- **Future Obligation Reserve** – Includes funding that has been received to satisfy future obligations under lease, credit, loan, or other agreements to which the company is a party. This reserve is budgeted to be \$1.6M for 2020.
- **System Operator Certification Reserve** – Includes surplus funding from operator certification and testing fees that are above incurred expenses and shall be used solely to support operator testing and certification needs. The 2020 System Operator Certification Reserve is budgeted at \$442k and 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 \$500k in the 2020 budget.
- **Operating Contingency Reserve** – Includes both general working capital funds resulting from day to day operations, and additional funds for contingencies that were not anticipated. NERC's current policy on Operating Contingency Reserves requires a reserve target of 3.5–7.0%, except as otherwise approved by the Board after review and recommendation by the Board 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 proposing to use \$650k of the Operating Contingency Reserve for funding for the 2020 budget, resulting in an assumed Operating Contingency Reserve of approximately \$4.7M, which is 6.5% of total budgeted operating and fixed asset (capital) costs.
- **Assessment Stabilization Reserve** – To date, this reserve has been funded entirely by previously received penalties and is projected to have a balance of \$1.5M as of January 1, 2020. For the 12 months ended June 30, 2019, NERC collected no penalties. For purposes of the company's 2020 BP&B, NERC is not currently proposing any release of Assessment Stabilization Reserve funds to offset U.S. assessments. The Assessment Stabilization Reserve will be used to reduce U.S. assessments in one or more future periods in the applicable year's BP&B, subject to review and approval by the Board and FERC.

## Appendix 1 – NERC Staff Organization Chart – Budget 2020

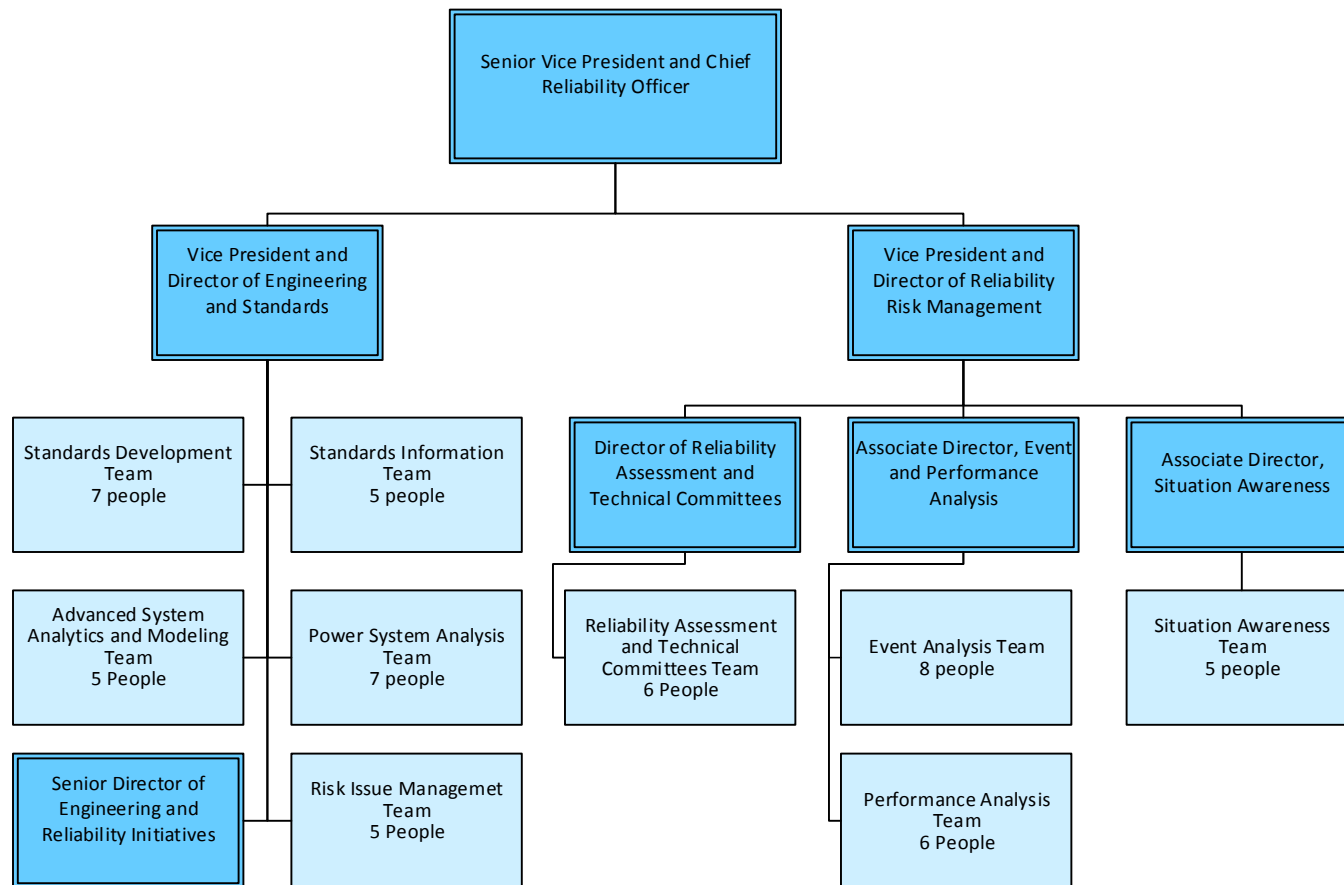




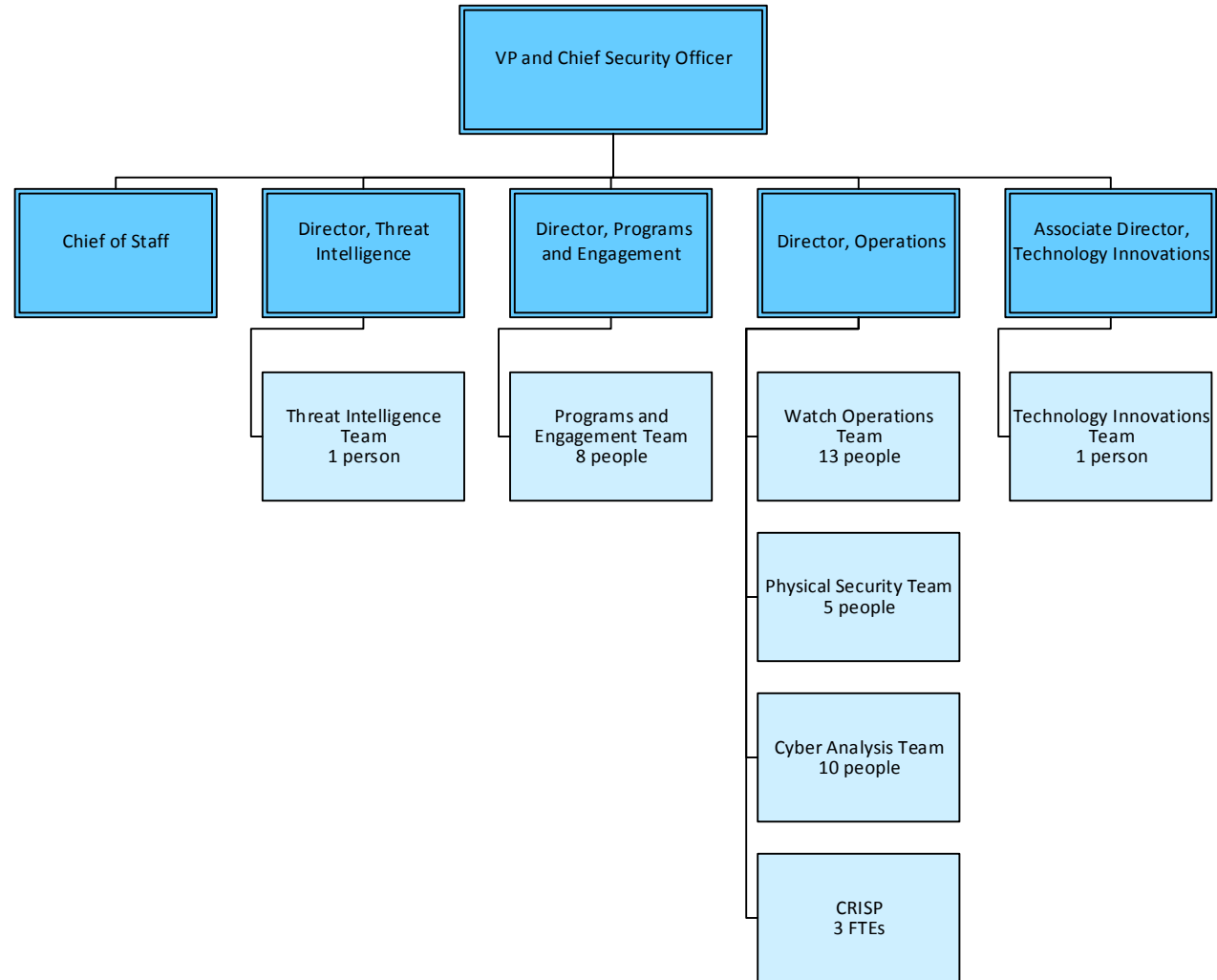
# Executive, IT, Finance, & HR and Administration



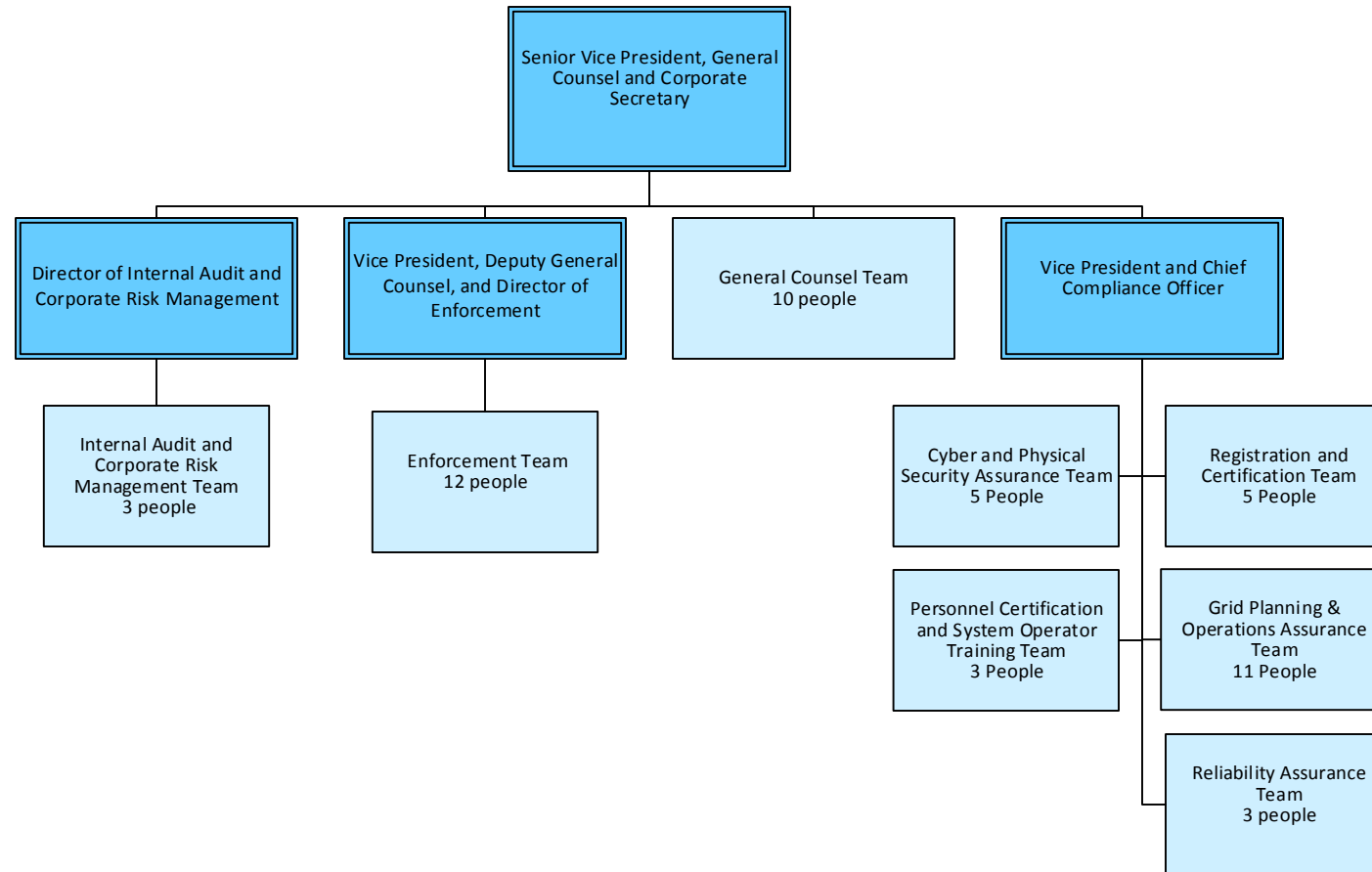
# Engineering and Standards & Reliability Risk Management



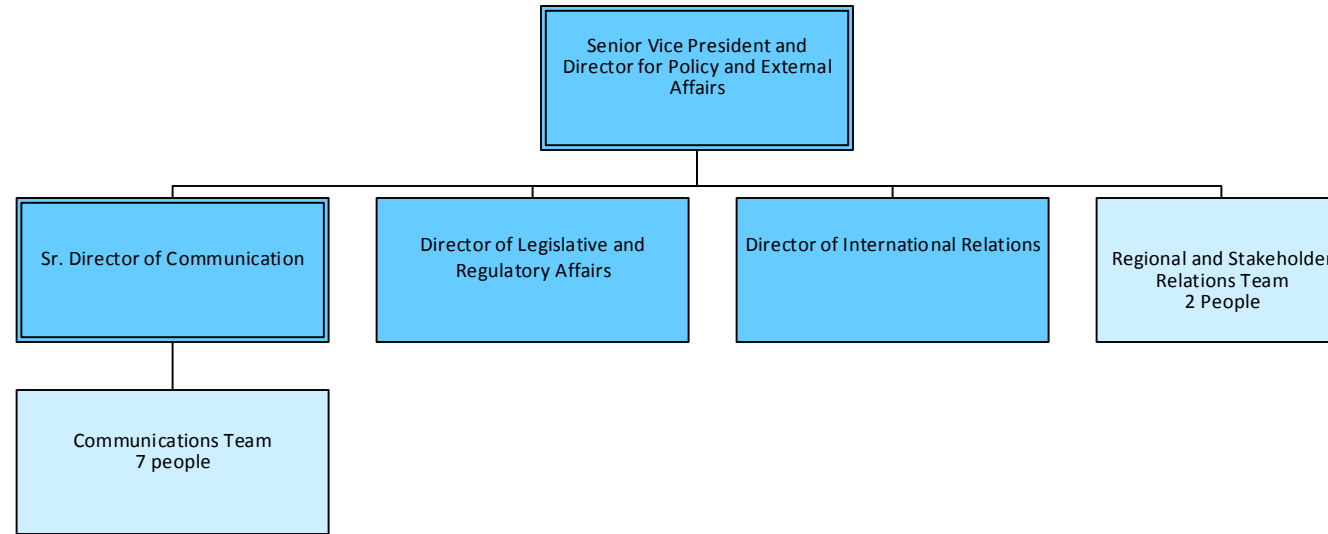
# Electricity Information Sharing and Analysis Center



# Legal and Regulatory, Internal Audit and Corporate Risk Management, Compliance, & Enforcement



## Policy and External Affairs



2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	MRO	C-1217	Manitoba Hydro	Canada	21,844,216	-	21,844,216	-	4.433%	0.000%	4.433%	0.000%	0.476%
2018	MRO	C-1235	SaskPower	Canada	25,362,600	-	25,362,600	-	5.147%	0.000%	5.147%	0.000%	0.552%
2018	MRO	C-1707	AEP-VEMCO	U.S.	702,074	702,074	-	-	0.142%	0.142%	0.000%	0.000%	0.015%
2018	MRO	C-1195	Alliant Energy (ALTE- WPL & ALTW IPL)	U.S.	29,416,568	29,416,568	-	-	5.970%	5.970%	0.000%	0.000%	0.641%
2018	MRO	C-1246	American Electric Power Service Corporation	U.S.	38,195,257	38,195,257	-	-	7.752%	7.752%	0.000%	0.000%	0.832%
2018	MRO	C-1196	Ames Municipal Electric System	U.S.	793,382	793,382	-	-	0.161%	0.161%	0.000%	0.000%	0.017%
2018	MRO	C-1986	Arkansas Electric Cooperative Corporation (AECC)	U.S.	4,386,469	4,386,469	-	-	0.890%	0.890%	0.000%	0.000%	0.096%
2018	MRO	C-1604	Atlantic Municipal Utilities (AMU)	U.S.	119,111	119,111	-	-	0.024%	0.024%	0.000%	0.000%	0.003%
2018	MRO	C-1199	Basin Electric Power Cooperative (BEPC)	U.S.	21,146,049	21,146,049	-	-	4.292%	4.292%	0.000%	0.000%	0.461%
2018	MRO	C-1247	Board of Public Utilities (Kansas City, KS) (BPU)	U.S.	2,534,999	2,534,999	-	-	0.514%	0.514%	0.000%	0.000%	0.055%
2018	MRO	C-1620	Board of Public Utilities City of McPherson, KS (MCPHER)	U.S.	1,081,746	1,081,746	-	-	0.220%	0.220%	0.000%	0.000%	0.024%
2018	MRO	C-1647	Carthage Water and Light	U.S.	308,114	308,114	-	-	0.063%	0.063%	0.000%	0.000%	0.007%
2018	MRO	C-1200	Cedar Falls Utilities (CFU)	U.S.	540,009	540,009	-	-	0.110%	0.110%	0.000%	0.000%	0.012%
2018	MRO	C-1201	Central Iowa Power Cooperative (CIPCO)	U.S.	3,040,106	3,040,106	-	-	0.617%	0.617%	0.000%	0.000%	0.066%
2018	MRO	C-1477	Central Minnesota Municipal Power Agency (CMMPA)	U.S.	395,224	395,224	-	-	0.080%	0.080%	0.000%	0.000%	0.009%
2018	MRO	C-1469	Central Valley Electric Cooperative (CVEC)	U.S.	919,865	919,865	-	-	0.187%	0.187%	0.000%	0.000%	0.020%
2018	MRO	C-1556	City of Bentonville (BENVILL)	U.S.	727,709	727,709	-	-	0.148%	0.148%	0.000%	0.000%	0.016%
2018	MRO	C-1713	City of Bloomer (Bloomer Electric & Water Co.)	U.S.	59,542	59,542	-	-	0.012%	0.012%	0.000%	0.000%	0.001%
2018	MRO	C-1703	City of Chanute (CHANUTEKS)	U.S.	517,802	517,802	-	-	0.105%	0.105%	0.000%	0.000%	0.011%
2018	MRO	C-1203	City of Escanaba (EME)	U.S.	135,821	135,821	-	-	0.028%	0.028%	0.000%	0.000%	0.003%
2018	MRO	C-1718	City of Guttenberg	U.S.	20,545	20,545	-	-	0.004%	0.004%	0.000%	0.000%	0.000%
2018	MRO	C-1719	City of Kasota	U.S.	3,848	3,848	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	MRO	C-1709	City of Nixa	U.S.	162,349	162,349	-	-	0.033%	0.033%	0.000%	0.000%	0.004%
2018	MRO	C-1722	City of Spooner	U.S.	33,190	33,190	-	-	0.007%	0.007%	0.000%	0.000%	0.001%
2018	MRO	C-1436	City Utilities of Springfield, MO (SPRM)	U.S.	3,308,873	3,308,873	-	-	0.672%	0.672%	0.000%	0.000%	0.072%
2018	MRO	C-1204	Corn Belt Power Cooperative (CBPC)	U.S.	2,097,851	2,097,851	-	-	0.426%	0.426%	0.000%	0.000%	0.046%
2018	MRO	C-1710	Dahlberg Electric Company	U.S.	120,192	120,192	-	-	0.024%	0.024%	0.000%	0.000%	0.003%
2018	MRO	C-1207	Dairyland Power Cooperative (DPC)	U.S.	6,153,644	6,153,644	-	-	1.249%	1.249%	0.000%	0.000%	0.134%
2018	MRO	C-1437	East Texas Electric Cooperative, Inc. (ETEC)	U.S.	993,093	993,093	-	-	0.202%	0.202%	0.000%	0.000%	0.022%
2018	MRO	C-1716	Eldridge Electric and Water Utilities	U.S.	45,503	45,503	-	-	0.009%	0.009%	0.000%	0.000%	0.001%
2018	MRO	C-1250	Empire District Electric Co.	U.S.	5,576,268	5,576,268	-	-	1.132%	1.132%	0.000%	0.000%	0.121%
2018	MRO	C-1205	Falls City Water & Light Department	U.S.	62,052	62,052	-	-	0.013%	0.013%	0.000%	0.000%	0.001%
2018	MRO	C-1470	Farmers Electric Cooperative, Inc. of New Mexico (FARMCOOPN)	U.S.	334,453	334,453	-	-	0.068%	0.068%	0.000%	0.000%	0.007%
2018	MRO	C-1206	Fremont Department of Utilities (City of)	U.S.	449,092	449,092	-	-	0.091%	0.091%	0.000%	0.000%	0.010%
2018	MRO	C-1208	Geneseo Municipal Utilities	U.S.	68,724	68,724	-	-	0.014%	0.014%	0.000%	0.000%	0.001%
2018	MRO	C-1438	Golden Spread Electric Cooperative, Inc (GSEC)	U.S.	5,748,189	5,748,189	-	-	1.167%	1.167%	0.000%	0.000%	0.125%
2018	MRO	C-1209	Grand Island Utilities Department	U.S.	784,152	784,152	-	-	0.159%	0.159%	0.000%	0.000%	0.017%
2018	MRO	C-1251	Grand River Dam Authority (GRDA)	U.S.	5,412,295	5,412,295	-	-	1.098%	1.098%	0.000%	0.000%	0.118%
2018	MRO	C-1717	Great Lakes Utilities	U.S.	1,546,506	1,546,506	-	-	0.314%	0.314%	0.000%	0.000%	0.034%
2018	MRO	C-1210	Great River Energy (GRE)	U.S.	13,804,581	13,804,581	-	-	2.802%	2.802%	0.000%	0.000%	0.301%
2018	MRO	C-1606	Harlan Municipal Utilities	U.S.	18,236	18,236	-	-	0.004%	0.004%	0.000%	0.000%	0.000%
2018	MRO	C-1211	Hastings Utilities (HAST)	U.S.	452,538	452,538	-	-	0.092%	0.092%	0.000%	0.000%	0.010%
2018	MRO	C-1212	Heartland Consumers Power District (HCPD)	U.S.	465,868	465,868	-	-	0.095%	0.095%	0.000%	0.000%	0.010%
2018	MRO	C-1213	Hutchinson Utilities Commission (HUCH)	U.S.	292,676	292,676	-	-	0.059%	0.059%	0.000%	0.000%	0.006%
2018	MRO	C-1248	Independence Power & Light (Independence, MO) (INDN)	U.S.	1,111,073	1,111,073	-	-	0.225%	0.225%	0.000%	0.000%	0.024%
2018	MRO	C-1252	Kansas City Power & Light (KCPL)	U.S.	16,365,682	16,365,682	-	-	3.321%	3.321%	0.000%	0.000%	0.356%
2018	MRO	C-1439	Kansas Electric Power Cooperative (KEPC)	U.S.	2,244,537	2,244,537	-	-	0.456%	0.456%	0.000%	0.000%	0.049%

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	MRO	C-1440	Kansas Municipal Energy Agency (KMEA)	U.S.	1,625,136	1,625,136	-	-	0.330%	0.330%	0.000%	0.000%	0.035%
2018	MRO	C-1637	Kansas Power Pool (KPP)	U.S.	893,092	893,092	-	-	0.181%	0.181%	0.000%	0.000%	0.019%
2018	MRO	C-1598	KCPL - Greater Missouri Operations (KCPL-GMO)	U.S.	9,064,961	9,064,961	-	-	1.840%	1.840%	0.000%	0.000%	0.197%
2018	MRO	C-1649	Kennett Board of Public Works	U.S.	145,108	145,108	-	-	0.029%	0.029%	0.000%	0.000%	0.003%
2018	MRO	C-1472	Lea County Electric Cooperative (LCEC)	U.S.	1,290,350	1,290,350	-	-	0.262%	0.262%	0.000%	0.000%	0.028%
2018	MRO	C-1215	Lincoln Electric System (LES)	U.S.	3,331,594	3,331,594	-	-	0.676%	0.676%	0.000%	0.000%	0.073%
2018	MRO	C-1216	Madison, Gas and Electric (MGE)	U.S.	3,429,690	3,429,690	-	-	0.696%	0.696%	0.000%	0.000%	0.075%
2018	MRO	C-1650	Malden Board of Public Works	U.S.	52,027	52,027	-	-	0.011%	0.011%	0.000%	0.000%	0.001%
2018	MRO	C-1220	MidAmerican Energy Company (MEC)	U.S.	27,044,047	27,044,047	-	-	5.489%	5.489%	0.000%	0.000%	0.589%
2018	MRO	C-1441	Midwest Energy, Inc (MIDW)	U.S.	1,846,660	1,846,660	-	-	0.375%	0.375%	0.000%	0.000%	0.040%
2018	MRO	C-1224	Minnesota Municipal Power Agency (MMPA) Avant Energy Inc	U.S.	1,714,989	1,714,989	-	-	0.348%	0.348%	0.000%	0.000%	0.037%
2018	MRO	C-1221	Minnesota Power (MP)	U.S.	12,860,981	12,860,981	-	-	2.610%	2.610%	0.000%	0.000%	0.280%
2018	MRO	C-1222	Minnkota Power Cooperative, Inc. (MPC)	U.S.	4,034,240	4,034,240	-	-	0.819%	0.819%	0.000%	0.000%	0.088%
2018	MRO	C-1987	Missouri Joint Municipal Electric Utility	U.S.	448,892	448,892	-	-	0.091%	0.091%	0.000%	0.000%	0.010%
2018	MRO	C-1223	Missouri River Energy Services	U.S.	2,823,597	2,823,597	-	-	0.573%	0.573%	0.000%	0.000%	0.062%
2018	MRO	C-1226	Montana-Dakota Utilities Co. (MDU)	U.S.	3,313,387	3,313,387	-	-	0.672%	0.672%	0.000%	0.000%	0.072%
2018	MRO	C-1607	Montezuma Municipal Light & Power	U.S.	25,612	25,612	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	MRO	C-1227	Municipal Energy Agency of Nebraska (MEAN)	U.S.	1,042,189	1,042,189	-	-	0.212%	0.212%	0.000%	0.000%	0.023%
2018	MRO	C-1228	Muscataine Power and Water (MPW)	U.S.	904,415	904,415	-	-	0.184%	0.184%	0.000%	0.000%	0.020%
2018	MRO	C-1229	Nebraska City Utilities	U.S.	136,624	136,624	-	-	0.028%	0.028%	0.000%	0.000%	0.003%
2018	MRO	C-1230	Nebraska Public Power District (NPPD)	U.S.	13,471,227	13,471,227	-	-	2.734%	2.734%	0.000%	0.000%	0.293%
2018	MRO	C-1711	North Central Power Company	U.S.	39,076	39,076	-	-	0.008%	0.008%	0.000%	0.000%	0.001%
2018	MRO	C-1442	Northeast Texas Electric Cooperative, Inc. (NTEC)	U.S.	3,366,102	3,366,102	-	-	0.683%	0.683%	0.000%	0.000%	0.073%
2018	MRO	C-1231	NorthWestern Energy (NWE)	U.S.	1,689,236	1,689,236	-	-	0.343%	0.343%	0.000%	0.000%	0.037%
2018	MRO	C-1712	NorthWestern Wisconsin Electric Company	U.S.	193,833	193,833	-	-	0.039%	0.039%	0.000%	0.000%	0.004%
2018	MRO	C-1255	Oklahoma Gas and Electric Co. (OKGE)	U.S.	30,799,370	30,799,370	-	-	6.251%	6.251%	0.000%	0.000%	0.671%
2018	MRO	C-1444	Oklahoma Municipal Power Authority (OMPA)	U.S.	2,949,759	2,949,759	-	-	0.599%	0.599%	0.000%	0.000%	0.064%
2018	MRO	C-1232	Omaha Public Power District (OPPD)	U.S.	11,515,154	11,515,154	-	-	2.337%	2.337%	0.000%	0.000%	0.251%
2018	MRO	C-1233	Otter Tail Power Company (OTP)	U.S.	5,153,902	5,153,902	-	-	1.046%	1.046%	0.000%	0.000%	0.112%
2018	MRO	C-1651	Paragould Light, Water & Cable (PARAGOULD)	U.S.	621,451	621,451	-	-	0.126%	0.126%	0.000%	0.000%	0.014%
2018	MRO	C-1725	Peoples Electric Cooperative (PEC)	U.S.	748,961	748,961	-	-	0.152%	0.152%	0.000%	0.000%	0.016%
2018	MRO	C-1652	Piggott Municipal Light, Water & Sewer	U.S.	39,295	39,295	-	-	0.008%	0.008%	0.000%	0.000%	0.001%
2018	MRO	C-1653	Poplar Bluff Municipal Utilities	U.S.	384,309	384,309	-	-	0.078%	0.078%	0.000%	0.000%	0.008%
2018	MRO	C-1720	Resale Power Group of Iowa	U.S.	576,903	576,903	-	-	0.117%	0.117%	0.000%	0.000%	0.013%
2018	MRO	C-1721	Rice Lake Utilities	U.S.	169,304	169,304	-	-	0.034%	0.034%	0.000%	0.000%	0.004%
2018	MRO	C-1234	Rochester Public Utilities (RPU)	U.S.	3,345	3,345	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	MRO	C-1473	Roosevelt County Electric Cooperative	U.S.	169,360	169,360	-	-	0.034%	0.034%	0.000%	0.000%	0.004%
2018	MRO	C-1654	Sikeston Board of Municipal Utilities	U.S.	398,606	398,606	-	-	0.081%	0.081%	0.000%	0.000%	0.009%
2018	MRO	C-1236	Southern Minnesota Municipal Power Agency (SMMMPA)	U.S.	2,832,024	2,832,024	-	-	0.575%	0.575%	0.000%	0.000%	0.062%
2018	MRO	C-1257	Southwestern Public Service Co. Xcel Energy (SPS)	U.S.	22,418,820	22,418,820	-	-	4.550%	4.550%	0.000%	0.000%	0.488%
2018	MRO	C-1256	Sunflower Electric Cooperative (SECI)	U.S.	4,705,079	4,705,079	-	-	0.955%	0.955%	0.000%	0.000%	0.102%
2018	MRO	C-1475	Tri County Electric Cooperative, Inc. of Oklahoma (TRICEC)	U.S.	384,063	384,063	-	-	0.078%	0.078%	0.000%	0.000%	0.008%
2018	MRO	C-1665	Upper Peninsula Power Co (UPPC)	U.S.	699,072	699,072	-	-	0.142%	0.142%	0.000%	0.000%	0.015%
2018	MRO	C-1714	Village of Caddott	U.S.	13,092	13,092	-	-	0.003%	0.003%	0.000%	0.000%	0.000%
2018	MRO	C-1260	Westar Energy (WR)	U.S.	21,696,934	21,696,934	-	-	4.403%	4.403%	0.000%	0.000%	0.473%
2018	MRO	C-1239	Western Area Power Administration Rocky Mountain Region (	U.S.	46,581	46,581	-	-	0.009%	0.009%	0.000%	0.000%	0.001%
2018	MRO	C-1240	Western Area Power Administration Upper Great Plains (UM) (	U.S.	9,237,592	9,237,592	-	-	1.875%	1.875%	0.000%	0.000%	0.201%
2018	MRO	C-1259	Western Farmers Electric Cooperative (WFEC)	U.S.	9,475,735	9,475,735	-	-	1.923%	1.923%	0.000%	0.000%	0.206%

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	MRO	C-1501	West Texas Municipal Power Agency (WTMPA)	U.S.	2,971,109	2,971,109	-	-	0.603%	0.603%	0.000%	0.000%	0.065%
2018	MRO	C-1241	Willmar Municipal Utilities (WLMRWL)	U.S.	259,937	259,937	-	-	0.053%	0.053%	0.000%	0.000%	0.006%
2018	MRO	C-1242	Wisconsin Public Power, Inc. (East and West regions) (WPPI)	U.S.	5,346,925	5,346,925	-	-	1.085%	1.085%	0.000%	0.000%	0.116%
2018	MRO	C-1983	Wolverine Power Marketing Cooperative	U.S.	41,905	41,905	-	-	0.009%	0.009%	0.000%	0.000%	0.001%
2018	MRO	C-1244	Xcel Energy Company Northern States Power (NSP)	U.S.	44,381,781	44,381,781	-	-	9.007%	9.007%	0.000%	0.000%	0.967%
TOTAL MRO					492,730,106	445,523,290	47,206,816	-	100.000%	90.419%	9.581%	0.000%	10.733%
2018	NPCC	C-1336	New England	U.S.	123,472,000	123,472,000	-	-	19.905%	19.905%	0.000%	0.000%	2.690%
2018	NPCC	C-1339	New York	U.S.	161,114,000	161,114,000	-	-	25.973%	25.973%	0.000%	0.000%	3.510%
2018	NPCC	C-1337	Ontario	Canada	137,437,000	-	137,437,000	-	22.156%	0.000%	22.156%	0.000%	2.994%
2018	NPCC		Quebec	Canada	172,900,000	-	172,900,000	-	27.873%	0.000%	27.873%	0.000%	3.766%
2018		C-1341	Hydro Quebec	Canada	-	-	-	-	-	-	-	-	-
2018		C-1572	Regie	Canada	-	-	-	-	-	-	-	-	-
2018	NPCC	C-1705	New Brunswick	Canada	14,077,000	-	14,077,000	-	2.269%	0.000%	2.269%	0.000%	0.307%
2018	NPCC	C-1340	Nova Scotia	Canada	11,311,000	-	11,311,000	-	1.823%	0.000%	1.823%	0.000%	0.246%
TOTAL NPCC					620,311,000	284,586,000	335,725,000	-	100.000%	45.878%	54.122%	0.000%	13.512%
2018	RF	C-1102	Cannelton Utilities	U.S.	15,144	15,144	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	RF	C-1106	City of Croswell	U.S.	40,168	40,168	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	RF	C-1490	City of Lansing	U.S.	2,196,875	2,196,875	-	-	0.240%	0.240%	0.000%	0.000%	0.048%
2018	RF	C-1120	Cloverland Electric Cooperative	U.S.	750,490	750,490	-	-	0.082%	0.082%	0.000%	0.000%	0.016%
2018	RF	C-1122	CMS ERM Michigan LLC	U.S.	176,076	176,076	-	-	0.019%	0.019%	0.000%	0.000%	0.004%
2018	RF	C-1124	Constellation New Energy (MECS-CONS)	U.S.	1,808,348	1,808,348	-	-	0.197%	0.197%	0.000%	0.000%	0.039%
2018	RF	C-1123	Constellation New Energy (MECS-DET)	U.S.	2,098,296	2,098,296	-	-	0.229%	0.229%	0.000%	0.000%	0.046%
2018	RF	C-1126	Consumers Energy Company	U.S.	34,088,752	34,088,752	-	-	3.721%	3.721%	0.000%	0.000%	0.743%
2018	RF	C-1128	Detroit Edison Company	U.S.	46,584,894	46,584,894	-	-	5.085%	5.085%	0.000%	0.000%	1.015%
2018	RF	C-1166	Duke Energy Indiana	U.S.	30,612,465	30,612,465	-	-	3.342%	3.342%	0.000%	0.000%	0.667%
2018	RF	C-1135	Ferdinand Municipal Light & Water	U.S.	45,002	45,002	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	RF	C-1646	FirstEnergy Solutions (MECS-CONS)	U.S.	892,833	892,833	-	-	0.097%	0.097%	0.000%	0.000%	0.019%
2018	RF	C-1549	FirstEnergy Solutions (MECS-DET)	U.S.	96,307	96,307	-	-	0.011%	0.011%	0.000%	0.000%	0.002%
2018	RF	C-1145	Hoosier Energy	U.S.	8,063,908	8,063,908	-	-	0.880%	0.880%	0.000%	0.000%	0.176%
2018	RF	C-1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	3,190,789	3,190,789	-	-	0.348%	0.348%	0.000%	0.000%	0.070%
2018	RF	C-1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	443,311	443,311	-	-	0.048%	0.048%	0.000%	0.000%	0.010%
2018	RF	C-1486	Indiana Municipal Power Agency (SIGE)	U.S.	608,977	608,977	-	-	0.066%	0.066%	0.000%	0.000%	0.013%
2018	RF	C-1149	Indianapolis Power & Light Co.	U.S.	14,505,039	14,505,039	-	-	1.583%	1.583%	0.000%	0.000%	0.316%
2018	RF	C-1666	Constellation New Energy(FKA Integrys Energy Services)	U.S.	308,455	308,455	-	-	0.034%	0.034%	0.000%	0.000%	0.007%
2018	RF	C-1614	Just Energy (MECS-DET)	U.S.	7,789	7,789	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	RF	C-1154	Michigan Public Power Agency	U.S.	3,885,349	3,885,349	-	-	0.424%	0.424%	0.000%	0.000%	0.085%
2018	RF	C-1155	Michigan South Central Power Agency	U.S.	793,895	793,895	-	-	0.087%	0.087%	0.000%	0.000%	0.017%
2018	RF	C-1158	MidAmerican Energy Company Retail	U.S.	4,146	4,146	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	RF	C-1163	Northern Indiana Public Service Co.	U.S.	16,935,739	16,935,739	-	-	1.849%	1.849%	0.000%	0.000%	0.369%
2018	RF	C-1164	Ontonagon County Rural Electrification Assoc.	U.S.	28,351	28,351	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	RF	C-1265	PJM Interconnection, LLC	U.S.	690,262,435	690,262,435	-	-	75.350%	75.350%	0.000%	0.000%	15.036%
2018	RF	C-1172	Calpine Energy Solutions (k.n.a.Noble Americas Energy Solution	U.S.	322,629	322,629	-	-	0.035%	0.035%	0.000%	0.000%	0.007%
2018	RF	C-1171	Calpine Energy Solutions (k.n.a.Noble Americas Energy Solution	U.S.	618,056	618,056	-	-	0.067%	0.067%	0.000%	0.000%	0.013%
2018	RF	C-1176	Direct Energy (fka:Strategic Energy,LLC) (MECS-CONS)	U.S.	53,888	53,888	-	-	0.006%	0.006%	0.000%	0.000%	0.001%
2018	RF	C-1174	Direct Energy (fka:Strategic Energy,LLC) (MECS-DET)	U.S.	1,675,828	1,675,828	-	-	0.183%	0.183%	0.000%	0.000%	0.037%



2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	RF	C-1581	Spartan Renewable Energy	U.S.	130,966	130,966	-	-	0.014%	0.014%	0.000%	0.000%	0.003%
2018	RF	C-1985	Spartan Renewable Energy (MI UP)	U.S.	73,882	73,882	-	-	0.008%	0.008%	0.000%	0.000%	0.002%
2018	RF	C-1180	Thumb Electric Cooperative	U.S.	189,597	189,597	-	-	0.021%	0.021%	0.000%	0.000%	0.004%
2018	RF	C-2027	Upper Michigan Energy Resources	U.S.	663,504	663,504	-	-	0.072%	0.072%	0.000%	0.000%	0.014%
2018	RF	C-1181	Vectren Energy Delivery of IN	U.S.	5,307,406	5,307,406	-	-	0.579%	0.579%	0.000%	0.000%	0.116%
2018	RF	C-1184	Wabash Valley Power Association Inc. (DUKE CIN)	U.S.	3,015,144	3,015,144	-	-	0.329%	0.329%	0.000%	0.000%	0.066%
2018	RF	C-1488	Wabash Valley Power Association Inc.(NIPSCO)	U.S.	1,791,934	1,791,934	-	-	0.196%	0.196%	0.000%	0.000%	0.039%
2018	RF	C-1185	Wisconsin Electric Power Co.	U.S.	28,083,469	28,083,469	-	-	3.066%	3.066%	0.000%	0.000%	0.612%
2018	RF	C-1664	Wisconsin Public Service Co.	U.S.	11,641,000	11,641,000	-	-	1.271%	1.271%	0.000%	0.000%	0.254%
2018	RF	C-1189	Wolverine Power Marketing Cooperative	U.S.	695,804	695,804	-	-	0.076%	0.076%	0.000%	0.000%	0.015%
2018	RF	C-1191	Wolverine Power Supply Cooperative	U.S.	2,849,623	2,849,623	-	-	0.311%	0.311%	0.000%	0.000%	0.062%
2018	RF	C-1190	Wolverine Power Marketing Cooperative(MECS-DET)	U.S.	522,450	522,450	-	-	0.057%	0.057%	0.000%	0.000%	0.011%
TOTAL RELIABILITYFIRST					916,079,013	916,079,013	-	-	100.000%	100.000%	0.000%	0.000%	19.955%
2018	SERC	C-1267	Alabama Municipal Electric Authority	U.S.	3,489,885	3,489,885	-	-	0.265%	0.265%	0.000%	0.000%	0.076%
2018	SERC	C-1268	Alabama Power Company	U.S.	57,888,213	57,888,213	-	-	4.399%	4.399%	0.000%	0.000%	1.261%
2018	SERC	C-1269	Ameren - Illinois	U.S.	43,347,000	43,347,000	-	-	3.294%	3.294%	0.000%	0.000%	0.944%
2018	SERC	C-1271	Ameren - Missouri	U.S.	38,300,000	38,300,000	-	-	2.910%	2.910%	0.000%	0.000%	0.834%
2018	SERC	C-1273	Associated Electric Cooperative Inc.	U.S.	21,033,000	21,033,000	-	-	1.598%	1.598%	0.000%	0.000%	0.458%
2018	SERC	C-1582	Beauregard Electric Cooperative, Inc.	U.S.	1,259,080	1,259,080	-	-	0.096%	0.096%	0.000%	0.000%	0.027%
2018	SERC	C-1462	Benton Utility District	U.S.	268,534	268,534	-	-	0.020%	0.020%	0.000%	0.000%	0.006%
2018	SERC	C-1274	Big Rivers Electric Corporation	U.S.	3,873,413	3,873,413	-	-	0.294%	0.294%	0.000%	0.000%	0.084%
2018	SERC	C-1275	Black Warrior EMC	U.S.	435,118	435,118	-	-	0.033%	0.033%	0.000%	0.000%	0.009%
2018	SERC	C-1276	Blue Ridge EMC	U.S.	1,457,916	1,457,916	-	-	0.111%	0.111%	0.000%	0.000%	0.032%
2018	SERC	C-1628	Brazos Electric Power Cooperative, Inc.	U.S.	514,270	514,270	-	-	0.039%	0.039%	0.000%	0.000%	0.011%
2018	SERC	C-1463	Canton, MS	U.S.	128,081	128,081	-	-	0.010%	0.010%	0.000%	0.000%	0.003%
2018	SERC	C-1277	Central Electric Power Cooperative Inc.	U.S.	18,077,510	18,077,510	-	-	1.374%	1.374%	0.000%	0.000%	0.394%
2018	SERC	C-1667	Century Aluminum - Hawesville	U.S.	3,152,323	3,152,323	-	-	0.240%	0.240%	0.000%	0.000%	0.069%
2018	SERC	C-1668	Century Aluminum - Sebree	U.S.	2,111,397	2,111,397	-	-	0.160%	0.160%	0.000%	0.000%	0.046%
2018	SERC	C-1278	City of Blountstown FL	U.S.	34,504	34,504	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	SERC	C-1279	City of Camden SC	U.S.	201,000	201,000	-	-	0.015%	0.015%	0.000%	0.000%	0.004%
2018	SERC	C-1280	City of Collins MS	U.S.	46,800	46,800	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	SERC	C-1281	City of Columbia MO	U.S.	1,234,936	1,234,936	-	-	0.094%	0.094%	0.000%	0.000%	0.027%
2018	SERC	C-1282	City of Conway AR (Conway Corporation)	U.S.	1,035,563	1,035,563	-	-	0.079%	0.079%	0.000%	0.000%	0.023%
2018	SERC	C-1284	City of Evergreen AL	U.S.	57,166	57,166	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	SERC	C-1285	City of Hampton GA	U.S.	32,393	32,393	-	-	0.002%	0.002%	0.000%	0.000%	0.001%
2018	SERC	C-1286	City of Hartford AL	U.S.	26,946	26,946	-	-	0.002%	0.002%	0.000%	0.000%	0.001%
2018	SERC	C-1287	City of Henderson (KY) Municipal Power & Light	U.S.	621,088	621,088	-	-	0.047%	0.047%	0.000%	0.000%	0.014%
2018	SERC	C-1288	City of North Little Rock AR (DENL)	U.S.	959,814	959,814	-	-	0.073%	0.073%	0.000%	0.000%	0.021%
2018	SERC	C-1289	City of Orangeburg SC Department of Public Utilities	U.S.	837,000	837,000	-	-	0.064%	0.064%	0.000%	0.000%	0.018%
2018	SERC	C-1290	City of Robertsedale AL	U.S.	88,855	88,855	-	-	0.007%	0.007%	0.000%	0.000%	0.002%
2018	SERC	C-1291	City of Ruston LA (DERS)	U.S.	282,805	282,805	-	-	0.021%	0.021%	0.000%	0.000%	0.006%
2018	SERC	C-1292	Seneca Light & Power	U.S.	166,706	166,706	-	-	0.013%	0.013%	0.000%	0.000%	0.004%
2018	SERC	C-1115	City of Springfield (CWLP)	U.S.	1,778,877	1,778,877	-	-	0.135%	0.135%	0.000%	0.000%	0.039%
2018	SERC	C-1465	City of Thayer, MO	U.S.	19,742	19,742	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	SERC	C-1293	City of Troy AL	U.S.	423,350	423,350	-	-	0.032%	0.032%	0.000%	0.000%	0.009%
2018	SERC	C-1294	City of West Memphis AR (West Memphis Utilities)	U.S.	395,556	395,556	-	-	0.030%	0.030%	0.000%	0.000%	0.009%
2018	SERC	C-1583	Claiborne Electric Cooperative, Inc.	U.S.	688,198	688,198	-	-	0.052%	0.052%	0.000%	0.000%	0.015%

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2018	SERC	C-1584	Concordia Electric Cooperative, Inc.	U.S.	227,729	227,729	-	-	0.017%	0.017%	0.000%	0.000%	0.005%
2018	SERC	C-1726	Cube Hydro Carolinas	U.S.	19,415	19,415	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	SERC	C-1283	Dalton Utilities	U.S.	1,888,549	1,888,549	-	-	0.144%	0.144%	0.000%	0.000%	0.041%
2018	SERC	C-1585	Dixie Electric Membership Corporation	U.S.	2,305,267	2,305,267	-	-	0.175%	0.175%	0.000%	0.000%	0.050%
2018	SERC	C-1295	Dominion Virginia Power	U.S.	89,685,136	89,685,136	-	-	6.815%	6.815%	0.000%	0.000%	1.954%
2018	SERC	C-1296	Duke Energy Carolinas, LLC	U.S.	87,973,075	87,973,075	-	-	6.685%	6.685%	0.000%	0.000%	1.916%
2018	SERC	C-1466	Durant, MS	U.S.	25,693	25,693	-	-	0.002%	0.002%	0.000%	0.000%	0.001%
2018	SERC	C-1478	LG&E and KU Services Co as agent for LG&E Co and KU Co	U.S.	35,304,745	35,304,745	-	-	2.683%	2.683%	0.000%	0.000%	0.769%
2018	SERC	C-1297	East Kentucky Power Cooperative	U.S.	14,284,486	14,284,486	-	-	1.085%	1.085%	0.000%	0.000%	0.311%
2018	SERC	C-1298	East Mississippi Electric Power Association	U.S.	441,394	441,394	-	-	0.034%	0.034%	0.000%	0.000%	0.010%
2018	SERC	C-1669	Electricities of North Carolina Inc	U.S.	12,114,883	12,114,883	-	-	0.921%	0.921%	0.000%	0.000%	0.264%
2018	SERC	C-1300	EnergyUnited EMC	U.S.	2,723,294	2,723,294	-	-	0.207%	0.207%	0.000%	0.000%	0.059%
2018	SERC	C-1301	Entergy	U.S.	122,478,194	122,478,194	-	-	9.307%	9.307%	0.000%	0.000%	2.668%
2018	SERC	C-1302	Fayetteville (NC) Public Works Commission	U.S.	2,185,584	2,185,584	-	-	0.166%	0.166%	0.000%	0.000%	0.048%
2018	SERC	C-1303	Florida Public Utilities (FL Panhandle Load)	U.S.	296,525	296,525	-	-	0.023%	0.023%	0.000%	0.000%	0.006%
2018	SERC	C-1304	French Broad EMC	U.S.	568,758	568,758	-	-	0.043%	0.043%	0.000%	0.000%	0.012%
2018	SERC	C-1305	Georgia Power Company	U.S.	88,267,632	88,267,632	-	-	6.707%	6.707%	0.000%	0.000%	1.923%
2018	SERC	C-1306	Georgia System Optns Corporation	U.S.	41,250,410	41,250,410	-	-	3.135%	3.135%	0.000%	0.000%	0.899%
2018	SERC	C-1479	Greenwood (MS) Utilities Commission	U.S.	278,805	278,805	-	-	0.021%	0.021%	0.000%	0.000%	0.006%
2018	SERC	C-1307	Greenwood (SC) Commissioners of Public Works	U.S.	328,557	328,557	-	-	0.025%	0.025%	0.000%	0.000%	0.007%
2018	SERC	C-1308	Gulf Power Company	U.S.	11,740,179	11,740,179	-	-	0.892%	0.892%	0.000%	0.000%	0.256%
2018	SERC	C-1586	Haywood EMC	U.S.	334,165	334,165	-	-	0.025%	0.025%	0.000%	0.000%	0.007%
2018	SERC	C-1984	Hoosier Energy REC, Inc	U.S.	453,934	453,934	-	-	0.034%	0.034%	0.000%	0.000%	0.010%
2018	SERC	C-1309	Illinois Municipal Electric Agency	U.S.	1,863,500	1,863,500	-	-	0.142%	0.142%	0.000%	0.000%	0.041%
2018	SERC	C-1480	Itta Bena, MS	U.S.	14,853	14,853	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	SERC	C-1587	Jefferson Davis Electric Cooperative, Inc.	U.S.	283,836	283,836	-	-	0.022%	0.022%	0.000%	0.000%	0.006%
2018	SERC	C-1617	Kentucky Municipal Power	U.S.	708,254	708,254	-	-	0.054%	0.054%	0.000%	0.000%	0.015%
2018	SERC	C-1481	Kosciusko, MS	U.S.	75,935	75,935	-	-	0.006%	0.006%	0.000%	0.000%	0.002%
2018	SERC	C-1482	Leland, MS	U.S.	31,186	31,186	-	-	0.002%	0.002%	0.000%	0.000%	0.001%
2018	SERC	C-1313	McCormick Commission of Public Works	U.S.	16,760	16,760	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	SERC	C-1314	Mississippi Power Company	U.S.	10,341,880	10,341,880	-	-	0.786%	0.786%	0.000%	0.000%	0.225%
2018	SERC	C-1630	Mt. Carmel Public Utility	U.S.	102,762	102,762	-	-	0.008%	0.008%	0.000%	0.000%	0.002%
2018	SERC	C-1315	Municipal Electric Authority of Georgia	U.S.	11,332,939	11,332,939	-	-	0.861%	0.861%	0.000%	0.000%	0.247%
2018	SERC	C-1316	N.C. Electric Membership Corp.	U.S.	13,525,354	13,525,354	-	-	1.028%	1.028%	0.000%	0.000%	0.295%
2018	SERC	C-1588	Northeast Louisiana Power Cooperative, Inc.	U.S.	309,290	309,290	-	-	0.024%	0.024%	0.000%	0.000%	0.007%
2018	SERC	C-1574	Northern Virginia Electric Cooperative	U.S.	5,542,085	5,542,085	-	-	0.421%	0.421%	0.000%	0.000%	0.121%
2018	SERC	C-1319	Old Dominion Electric Cooperative	U.S.	5,129,702	5,129,702	-	-	0.390%	0.390%	0.000%	0.000%	0.112%
2018	SERC	C-1618	Osceola (Arkansas) Municipal Light and Power	U.S.	154,994	154,994	-	-	0.012%	0.012%	0.000%	0.000%	0.003%
2018	SERC	C-1320	Owensboro (KY) Municipal Utilities	U.S.	837,295	837,295	-	-	0.064%	0.064%	0.000%	0.000%	0.018%
2018	SERC	C-1321	Piedmont EMC in Duke and Progress Areas	U.S.	554,804	554,804	-	-	0.042%	0.042%	0.000%	0.000%	0.012%
2018	SERC	C-1323	Piedmont Municipal Power Agency (PMPA)	U.S.	2,466,704	2,466,704	-	-	0.187%	0.187%	0.000%	0.000%	0.054%
2018	SERC	C-1589	Pointe Coupee Electric Memb. Corp.	U.S.	256,022	256,022	-	-	0.019%	0.019%	0.000%	0.000%	0.006%
2018	SERC	C-1266	PowerSouth Energy	U.S.	9,105,730	9,105,730	-	-	0.692%	0.692%	0.000%	0.000%	0.198%
2018	SERC	C-1330	Prairie Power, Inc.	U.S.	1,625,617	1,625,617	-	-	0.124%	0.124%	0.000%	0.000%	0.035%
2018	SERC	C-1706	Duke Energy Progress	U.S.	47,126,091	47,126,091	-	-	3.581%	3.581%	0.000%	0.000%	1.027%
2018	SERC	C-1325	Rutherford EMC	U.S.	1,408,483	1,408,483	-	-	0.107%	0.107%	0.000%	0.000%	0.031%
2018	SERC	C-1631	Sam Rayburn G&T Electric Cooperative Inc.	U.S.	-	-	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	SERC	C-1326	South Carolina Electric & Gas Company	U.S.	23,849,155	23,849,155	-	-	1.812%	1.812%	0.000%	0.000%	0.520%

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	SERC	C-1327	South Carolina Public Service Authority	U.S.	8,908,150	8,908,150	-	-	0.677%	0.677%	0.000%	0.000%	0.194%
2018	SERC	C-1590	South Louisiana Electric Cooperative Association	U.S.	583,230	583,230	-	-	0.044%	0.044%	0.000%	0.000%	0.013%
2018	SERC	C-1328	Cooperative Energy (formerly SMEPA)	U.S.	10,182,071	10,182,071	-	-	0.774%	0.774%	0.000%	0.000%	0.222%
2018	SERC	C-1329	Southern Illinois Power Cooperative	U.S.	1,594,946	1,594,946	-	-	0.121%	0.121%	0.000%	0.000%	0.035%
2018	SERC	C-1591	Southwest Louisiana Electric Membership Corporation	U.S.	2,615,861	2,615,861	-	-	0.199%	0.199%	0.000%	0.000%	0.057%
2018	SERC	C-1619	Southwestern Electric Cooperative, Inc.	U.S.	480,308	480,308	-	-	0.036%	0.036%	0.000%	0.000%	0.010%
2018	SERC	C-1331	Tennessee Valley Authority	U.S.	163,614,076	163,614,076	-	-	12.433%	12.433%	0.000%	0.000%	3.564%
2018	SERC	C-1632	Tex-La Electric Cooperative of Texas, Inc	U.S.	2,191,220	2,191,220	-	-	0.167%	0.167%	0.000%	0.000%	0.048%
2018	SERC	C-1332	Tombigbee Electric Cooperative Inc.	U.S.	134,922	134,922	-	-	0.010%	0.010%	0.000%	0.000%	0.003%
2018	SERC	C-1594	Town of Sharpsburg, N.C.	U.S.	19,000	19,000	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	SERC	C-1595	Town of Stantonsburg, N.C. JRO	U.S.	57,794	57,794	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	SERC	C-1333	Town of Waynesville NC	U.S.	89,631	89,631	-	-	0.007%	0.007%	0.000%	0.000%	0.002%
2018	SERC	C-1334	Town of Winnsboro SC	U.S.	63,655	63,655	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	SERC	C-1335	Town of Winterville NC	U.S.	55,803	55,803	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	SERC	C-1597	Washington-St.Tammany Electric Cooperative, Inc.	U.S.	1,101,921	1,101,921	-	-	0.084%	0.084%	0.000%	0.000%	0.024%
2018	SERC	C-1435	Arkansas Electric Cooperative Corporation	U.S.	11,027,765	11,027,765	-	-	0.838%	0.838%	0.000%	0.000%	0.240%
2018	SERC	C-1557	City of Clarksdale, Mississippi	U.S.	140,185	140,185	-	-	0.011%	0.011%	0.000%	0.000%	0.003%
2018	SERC	C-1708	City of Abbeville	U.S.	139,192	139,192	-	-	0.011%	0.011%	0.000%	0.000%	0.003%
2018	SERC	C-1558	Hope Water & Light (HWL)	U.S.	312,484	312,484	-	-	0.024%	0.024%	0.000%	0.000%	0.007%
2018	SERC	C-1559	City of Minden	U.S.	150,730	150,730	-	-	0.011%	0.011%	0.000%	0.000%	0.003%
2018	SERC	C-1249	Cleco Power LLC	U.S.	11,684,293	11,684,293	-	-	0.888%	0.888%	0.000%	0.000%	0.255%
2018	SERC	C-1648	Jonesboro City Water & Light	U.S.	1,461,178	1,461,178	-	-	0.111%	0.111%	0.000%	0.000%	0.032%
2018	SERC	C-1471	Lafayette Utilities System	U.S.	2,101,182	2,101,182	-	-	0.160%	0.160%	0.000%	0.000%	0.046%
2018	SERC	C-1253	Louisiana Energy & Power Authority (LEPA)	U.S.	989,593	989,593	-	-	0.075%	0.075%	0.000%	0.000%	0.022%
2018	SERC	C-1443	Missouri Joint Municipal Electric Utility Commission	U.S.	2,105,953	2,105,953	-	-	0.160%	0.160%	0.000%	0.000%	0.046%
2018	SERC	C-1639	OzMo Ozark Missouri, West Plains MO	U.S.	198,128	198,128	-	-	0.015%	0.015%	0.000%	0.000%	0.004%
2018	SERC	C-1653	Poplar Bluff Municipal Utilities	U.S.	386,123	386,123	-	-	0.029%	0.029%	0.000%	0.000%	0.008%
2018	SERC	C-1636	City of Prescott	U.S.	88,449	88,449	-	-	0.007%	0.007%	0.000%	0.000%	0.002%
2018	SERC	C-1561	Public Service Commission of Yazoo City of Mississippi	U.S.	122,814	122,814	-	-	0.009%	0.009%	0.000%	0.000%	0.003%
2018	SERC	C-1654	Sikeston Board of Municipal Utilities	U.S.	376,941	376,941	-	-	0.029%	0.029%	0.000%	0.000%	0.008%
2018	SERC	C-1074	Alachua, City of	U.S.	137,600	137,600	-	-	0.010%	0.010%	0.000%	0.000%	0.003%
2018	SERC	C-1075	Bartow, City of	U.S.	292,800	292,800	-	-	0.022%	0.022%	0.000%	0.000%	0.006%
2018	SERC	C-1076	Chattahoochee, City of	U.S.	36,300	36,300	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	SERC	C-1077	Florida Keys Electric Cooperative Assn	U.S.	738,000	738,000	-	-	0.056%	0.056%	0.000%	0.000%	0.016%
2018	SERC	C-1078	Florida Power & Light Co.	U.S.	115,759,000	115,759,000	-	-	8.796%	8.796%	0.000%	0.000%	2.522%
2018	SERC	C-1079	Florida Public Utilities Company	U.S.	350,000	350,000	-	-	0.027%	0.027%	0.000%	0.000%	0.008%
2018	SERC	C-1080	Gainesville Regional Utilities	U.S.	1,857,100	1,857,100	-	-	0.141%	0.141%	0.000%	0.000%	0.040%
2018	SERC	C-1081	Homestead, City of	U.S.	533,000	533,000	-	-	0.041%	0.041%	0.000%	0.000%	0.012%
2018	SERC	C-1082	JEA	U.S.	12,813,000	12,813,000	-	-	0.974%	0.974%	0.000%	0.000%	0.279%
2018	SERC	C-1083	Lakeland Electric	U.S.	3,180,000	3,180,000	-	-	0.242%	0.242%	0.000%	0.000%	0.069%
2018	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	4,225,000	4,225,000	-	-	0.321%	0.321%	0.000%	0.000%	0.092%
2018	SERC	C-1661	City of Lake Worth	U.S.	480,000	480,000	-	-	0.036%	0.036%	0.000%	0.000%	0.010%
2018	SERC	C-1084	Mount Dora, City of	U.S.	93,300	93,300	-	-	0.007%	0.007%	0.000%	0.000%	0.002%
2018	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	443,000	443,000	-	-	0.034%	0.034%	0.000%	0.000%	0.010%
2018	SERC	C-1086	Orlando Utilities Commission	U.S.	6,150,300	6,150,300	-	-	0.467%	0.467%	0.000%	0.000%	0.134%
2018	SERC	C-1087	Duke Energy Florida	U.S.	42,467,000	42,467,000	-	-	3.227%	3.227%	0.000%	0.000%	0.925%
2018	SERC	C-1088	Quincy, City of	U.S.	126,700	126,700	-	-	0.010%	0.010%	0.000%	0.000%	0.003%
2018	SERC	C-1089	Reedy Creek Improvement District	U.S.	1,206,000	1,206,000	-	-	0.092%	0.092%	0.000%	0.000%	0.026%

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 NERC and RE Assessments

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2018	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	807,700	807,700	-	-	0.061%	0.061%	0.000%	0.000%	0.018%
2018	SERC	C-1091	Tallahassee, City of	U.S.	2,820,000	2,820,000	-	-	0.214%	0.214%	0.000%	0.000%	0.061%
2018	SERC	C-1092	Tampa Electric Company	U.S.	20,663,000	20,663,000	-	-	1.570%	1.570%	0.000%	0.000%	0.450%
2018	SERC	C-1093	Wauchula, City of	U.S.	68,000	68,000	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	SERC	C-1094	Williston, City of	U.S.	36,400	36,400	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	SERC	C-1095	Winter Park, City of	U.S.	447,500	447,500	-	-	0.034%	0.034%	0.000%	0.000%	0.010%
2018	SERC	C-1724	Moore Haven, City of	U.S.	16,000	16,000	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	SERC	C-1072	Florida Municipal Power Agency	U.S.	6,126,600	6,126,600	-	-	0.466%	0.466%	0.000%	0.000%	0.133%
2018	SERC	C-1073	Seminole Electric Cooperative	U.S.	15,011,000	15,011,000	-	-	1.141%	1.141%	0.000%	0.000%	0.327%
TOTAL SERC					1,315,968,578	1,315,968,578	-	-	100.000%	100.000%	0.000%	0.000%	28.666%
2018	Texas RE	C-1019	ERCOT	U.S.	378,081,531	378,081,531	-	-	100.000%	100.000%	0.000%	0.000%	8.236%
TOTAL ERCOT					378,081,531	378,081,531	-	-	100.000%	100.000%	0.000%	0.000%	8.236%
2018	WECC		Alberta Electric System Operator	Canada	63,849,731	-	63,849,731	-	7.359%	0.000%	7.359%	0.000%	1.391%
2018	WECC		British Columbia Hydro & Power Authority	Canada	63,048,208	-	63,048,208	-	7.267%	0.000%	7.267%	0.000%	1.373%
2018	WECC		Centro Nacional de Control de Energia	Mexico	14,025,467	-	-	14,025,467	1.617%	0.000%	0.000%	1.617%	0.306%
2018	WECC		3 Phases Renewables	U.S.	3,934	3,934	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		Aguila Irrigation District - APS	U.S.	33,320	33,320	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	WECC		Aha Macav Power Service	U.S.	18,698	18,698	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		Ajo Improvement District	U.S.	10,934	10,934	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Arizona Electric Power Cooperative, Inc	U.S.	3,623,095	3,623,095	-	-	0.418%	0.418%	0.000%	0.000%	0.079%
2018	WECC		Arizona Public Service Company	U.S.	28,908,360	28,908,360	-	-	3.332%	3.332%	0.000%	0.000%	0.630%
2018	WECC		Arkansas River Power Authority (ARPA)	U.S.	267,286	267,286	-	-	0.031%	0.031%	0.000%	0.000%	0.006%
2018	WECC		Avangrid Renewables	U.S.	100,202	100,202	-	-	0.012%	0.012%	0.000%	0.000%	0.002%
2018	WECC		Avista Corporation	U.S.	9,417,612	9,417,612	-	-	1.085%	1.085%	0.000%	0.000%	0.205%
2018	WECC		Barrick Goldstrike Mines Inc.	U.S.	1,396,377	1,396,377	-	-	0.161%	0.161%	0.000%	0.000%	0.030%
2018	WECC		Basin Electric Power Cooperative - CM	U.S.	2,099,388	2,099,388	-	-	0.242%	0.242%	0.000%	0.000%	0.046%
2018	WECC		Basin Electric Power Cooperative - NW	U.S.	814,635	814,635	-	-	0.094%	0.094%	0.000%	0.000%	0.018%
2018	WECC		Basin Electric Power Cooperative - UG	U.S.	148,832	148,832	-	-	0.017%	0.017%	0.000%	0.000%	0.003%
2018	WECC		Beartooth Electric Cooperative	U.S.	77,819	77,819	-	-	0.009%	0.009%	0.000%	0.000%	0.002%
2018	WECC		Big Horn County Electric Cooperative	U.S.	70,081	70,081	-	-	0.008%	0.008%	0.000%	0.000%	0.002%
2018	WECC		Black Hills Energy	U.S.	2,124,645	2,124,645	-	-	0.245%	0.245%	0.000%	0.000%	0.046%
2018	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	4,468,619	4,468,619	-	-	0.515%	0.515%	0.000%	0.000%	0.097%
2018	WECC		Black Hills State University South Dakota	U.S.	20,012	20,012	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		Bonneville Power Administration	U.S.	199,636	199,636	-	-	0.023%	0.023%	0.000%	0.000%	0.004%
2018	WECC		Bonneville Power Administration-Power Services	U.S.	6,320,424	6,320,424	-	-	0.728%	0.728%	0.000%	0.000%	0.138%
2018	WECC		Bonneville Power Administration-Transmission	U.S.	55,393,873	55,393,873	-	-	6.385%	6.385%	0.000%	0.000%	1.207%
2018	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	22,816	22,816	-	-	0.003%	0.003%	0.000%	0.000%	0.000%
2018	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	100	100	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		Bureau of Reclamation (Wellfield)	U.S.	10,266	10,266	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Burlington	U.S.	31,196	31,196	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	WECC		Caesars Entertainment LLC/North	U.S.	62,265	62,265	-	-	0.007%	0.007%	0.000%	0.000%	0.001%
2018	WECC		Caesars Entertainment LLC/South	U.S.	479,344	479,344	-	-	0.055%	0.055%	0.000%	0.000%	0.010%
2018	WECC		California Independent System Operator	U.S.	222,160,888	222,160,888	-	-	25.606%	25.606%	0.000%	0.000%	4.839%
2018	WECC		Calpine Energy Solutions, LLC.	U.S.	1,340,069	1,340,069	-	-	0.154%	0.154%	0.000%	0.000%	0.029%
2018	WECC		Central Arizona Water Conservation District - 1	U.S.	2,420,819	2,420,819	-	-	0.279%	0.279%	0.000%	0.000%	0.053%
2018	WECC		City of Aztec Electric Dept	U.S.	36,147	36,147	-	-	0.004%	0.004%	0.000%	0.000%	0.001%

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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
2018	WECC		City of Fallon	U.S.	95,794	95,794	-	-	0.011%	0.011%	0.000%	0.000%	0.002%
2018	WECC		City of Farmington	U.S.	1,000,432	1,000,432	-	-	0.115%	0.115%	0.000%	0.000%	0.022%
2018	WECC		City of Gallup	U.S.	209,623	209,623	-	-	0.024%	0.024%	0.000%	0.000%	0.005%
2018	WECC		City of Henderson	U.S.	40,779	40,779	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		City of Las Vegas	U.S.	43,044	43,044	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		City of Mesa	U.S.	268,100	268,100	-	-	0.031%	0.031%	0.000%	0.000%	0.006%
2018	WECC		City of North Las Vegas	U.S.	21,573	21,573	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		City of Page	U.S.	80,163	80,163	-	-	0.009%	0.009%	0.000%	0.000%	0.002%
2018	WECC		City of Redding	U.S.	756,263	756,263	-	-	0.087%	0.087%	0.000%	0.000%	0.016%
2018	WECC		City of Roseville	U.S.	1,199,896	1,199,896	-	-	0.138%	0.138%	0.000%	0.000%	0.026%
2018	WECC		City of Tacoma DBA Tacoma Power	U.S.	4,860,320	4,860,320	-	-	0.560%	0.560%	0.000%	0.000%	0.106%
2018	WECC		City of Williams	U.S.	46,986	46,986	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		Clark County Water Reclamation District	U.S.	80,125	80,125	-	-	0.009%	0.009%	0.000%	0.000%	0.002%
2018	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	24,722	24,722	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	WECC		Colorado River Commission of Nevada	U.S.	381,992	381,992	-	-	0.044%	0.044%	0.000%	0.000%	0.008%
2018	WECC		Colorado Springs Utilities	U.S.	4,721,624	4,721,624	-	-	0.544%	0.544%	0.000%	0.000%	0.103%
2018	WECC		Colorado Springs Utilities	U.S.	68,014	68,014	-	-	0.008%	0.008%	0.000%	0.000%	0.001%
2018	WECC		Constellation New Energy	U.S.	469,011	469,011	-	-	0.054%	0.054%	0.000%	0.000%	0.010%
2018	WECC		Deseret Generation & Transmission Cooperative	U.S.	131,571	131,571	-	-	0.015%	0.015%	0.000%	0.000%	0.003%
2018	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	19,158	19,158	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		El Paso Electric Company	U.S.	8,606,045	8,606,045	-	-	0.992%	0.992%	0.000%	0.000%	0.187%
2018	WECC		Electrical District #2	U.S.	202,414	202,414	-	-	0.023%	0.023%	0.000%	0.000%	0.004%
2018	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	9,292	9,292	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	1,033	1,033	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	46,579	46,579	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	372,972	372,972	-	-	0.043%	0.043%	0.000%	0.000%	0.008%
2018	WECC		Francis E. Warren Air Force Base	U.S.	23,570	23,570	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	WECC		Grand Valley Power	U.S.	250,454	250,454	-	-	0.029%	0.029%	0.000%	0.000%	0.005%
2018	WECC		Harquahala Valley Power Districts - APS	U.S.	112,615	112,615	-	-	0.013%	0.013%	0.000%	0.000%	0.002%
2018	WECC		Holy Cross Energy	U.S.	1,076,142	1,076,142	-	-	0.124%	0.124%	0.000%	0.000%	0.023%
2018	WECC		Idaho Power Company	U.S.	15,868,701	15,868,701	-	-	1.829%	1.829%	0.000%	0.000%	0.346%
2018	WECC		Imperial Irrigation District	U.S.	3,763,277	3,763,277	-	-	0.434%	0.434%	0.000%	0.000%	0.082%
2018	WECC		Intermountain Rural Electric Association	U.S.	2,337,654	2,337,654	-	-	0.269%	0.269%	0.000%	0.000%	0.051%
2018	WECC		Jicarilla Apache Nation Power Authority	U.S.	22,033	22,033	-	-	0.003%	0.003%	0.000%	0.000%	0.000%
2018	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	310,882	310,882	-	-	0.036%	0.036%	0.000%	0.000%	0.007%
2018	WECC		Kit Carson Electric Inc	U.S.	296,032	296,032	-	-	0.034%	0.034%	0.000%	0.000%	0.006%
2018	WECC		Las Vegas Valley Water District	U.S.	109,260	109,260	-	-	0.013%	0.013%	0.000%	0.000%	0.002%
2018	WECC		Little Colorado Water District	U.S.	556	556	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		Los Angeles Department of Water and Power	U.S.	27,750,672	27,750,672	-	-	3.199%	3.199%	0.000%	0.000%	0.604%
2018	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - AP	U.S.	53,983	53,983	-	-	0.006%	0.006%	0.000%	0.000%	0.001%
2018	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	138,358	138,358	-	-	0.016%	0.016%	0.000%	0.000%	0.003%
2018	WECC		Merced Irrigation District	U.S.	524,361	524,361	-	-	0.060%	0.060%	0.000%	0.000%	0.011%
2018	WECC		MGM Resorts International	U.S.	920,148	920,148	-	-	0.106%	0.106%	0.000%	0.000%	0.020%
2018	WECC		Modesto Irrigation District	U.S.	2,522,065	2,522,065	-	-	0.291%	0.291%	0.000%	0.000%	0.055%
2018	WECC		Montana-Dakota Utilities Co.	U.S.	21,293	21,293	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		Mt. Wheeler Power	U.S.	566,431	566,431	-	-	0.065%	0.065%	0.000%	0.000%	0.012%
2018	WECC		Municipal Energy Agency of Nebraska	U.S.	640,037	640,037	-	-	0.074%	0.074%	0.000%	0.000%	0.014%
2018	WECC		Municipal Energy Agency of Nebraska - 1	U.S.	179,193	179,193	-	-	0.021%	0.021%	0.000%	0.000%	0.004%

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	5,146	5,146	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Navajo Tribal Utility Authority-Arizona	U.S.	57,879	57,879	-	-	0.007%	0.007%	0.000%	0.000%	0.001%
2018	WECC		Navajo Tribal Utility Authority-Colorado	U.S.	314,900	314,900	-	-	0.036%	0.036%	0.000%	0.000%	0.007%
2018	WECC		Navajo Tribal Utility Authority-New Mexico	U.S.	185,765	185,765	-	-	0.021%	0.021%	0.000%	0.000%	0.004%
2018	WECC		Nebraska Public Power Marketing	U.S.	3,769	3,769	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		Needles Public Utilities Authority	U.S.	40,690	40,690	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		Nevada Power Company dba NV Energy	U.S.	31,500,057	31,500,057	-	-	3.631%	3.631%	0.000%	0.000%	0.686%
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	291,069	291,069	-	-	0.034%	0.034%	0.000%	0.000%	0.006%
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - 1	U.S.	9,680,830	9,680,830	-	-	1.116%	1.116%	0.000%	0.000%	0.211%
2018	WECC		Okanogan PUD	U.S.	625,139	625,139	-	-	0.072%	0.072%	0.000%	0.000%	0.014%
2018	WECC		Overton Power District No. 5	U.S.	413,053	413,053	-	-	0.048%	0.048%	0.000%	0.000%	0.009%
2018	WECC		PacifiCorp (EasternBalAuth)	U.S.	50,789,939	50,789,939	-	-	5.854%	5.854%	0.000%	0.000%	1.106%
2018	WECC		PacifiCorp (IPC)	U.S.	1,999	1,999	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		PacifiCorp (Portland)	U.S.	4,289	4,289	-	-	0.000%	0.000%	0.000%	0.000%	0.000%
2018	WECC		PacifiCorp (WAPA-CO-MO)	U.S.	108,514	108,514	-	-	0.013%	0.013%	0.000%	0.000%	0.002%
2018	WECC		PacifiCorp West (PACW)	U.S.	20,657,966	20,657,966	-	-	2.381%	2.381%	0.000%	0.000%	0.450%
2018	WECC		Pend Oreille County PUD No. 1	U.S.	1,020,628	1,020,628	-	-	0.118%	0.118%	0.000%	0.000%	0.022%
2018	WECC		Peppermill Hotel Casino	U.S.	41,832	41,832	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		Platte River Power Authority	U.S.	3,272,760	3,272,760	-	-	0.377%	0.377%	0.000%	0.000%	0.071%
2018	WECC		Portland General Electric Company	U.S.	17,757,445	17,757,445	-	-	2.047%	2.047%	0.000%	0.000%	0.387%
2018	WECC		Public Service Company of Colorado (Xcel)	U.S.	31,242,210	31,242,210	-	-	3.601%	3.601%	0.000%	0.000%	0.681%
2018	WECC		Public Service Company of Colorado (Xcel)-(WAPA-CO-MO)	U.S.	117,174	117,174	-	-	0.014%	0.014%	0.000%	0.000%	0.003%
2018	WECC		Public Service Company of New Mexico	U.S.	9,347,241	9,347,241	-	-	1.077%	1.077%	0.000%	0.000%	0.204%
2018	WECC		Public Utility District No. 1 of Chelan County	U.S.	1,762,693	1,762,693	-	-	0.203%	0.203%	0.000%	0.000%	0.038%
2018	WECC		PUD No. 1 of Douglas County	U.S.	988,969	988,969	-	-	0.114%	0.114%	0.000%	0.000%	0.022%
2018	WECC		PUD No. 2 of Grant County	U.S.	5,002,216	5,002,216	-	-	0.577%	0.577%	0.000%	0.000%	0.109%
2018	WECC		PUD No. 2 of Grant County - 1	U.S.	92,583	92,583	-	-	0.011%	0.011%	0.000%	0.000%	0.002%
2018	WECC		Puget Sound Energy, Inc.	U.S.	23,811,162	23,811,162	-	-	2.744%	2.744%	0.000%	0.000%	0.519%
2018	WECC		Raton Public Service	U.S.	48,997	48,997	-	-	0.006%	0.006%	0.000%	0.000%	0.001%
2018	WECC		Roosevelt Irrigation District - APS	U.S.	44,168	44,168	-	-	0.005%	0.005%	0.000%	0.000%	0.001%
2018	WECC		Sacramento Municipal Utility District	U.S.	11,235,741	11,235,741	-	-	1.295%	1.295%	0.000%	0.000%	0.245%
2018	WECC		Salt River Project	U.S.	30,503,047	30,503,047	-	-	3.516%	3.516%	0.000%	0.000%	0.664%
2018	WECC		Seattle City Light	U.S.	9,663,811	9,663,811	-	-	1.114%	1.114%	0.000%	0.000%	0.211%
2018	WECC		Shell Energy North America	U.S.	170,313	170,313	-	-	0.020%	0.020%	0.000%	0.000%	0.004%
2018	WECC		Silver State Energy Association	U.S.	674,288	674,288	-	-	0.078%	0.078%	0.000%	0.000%	0.015%
2018	WECC		Southern Nevada Water Authority	U.S.	122,716	122,716	-	-	0.014%	0.014%	0.000%	0.000%	0.003%
2018	WECC		Switch-North	U.S.	26,764	26,764	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	WECC		Switch-South	U.S.	533,645	533,645	-	-	0.062%	0.062%	0.000%	0.000%	0.012%
2018	WECC		The Incorporated County of Los Alamos	U.S.	606,556	606,556	-	-	0.070%	0.070%	0.000%	0.000%	0.013%
2018	WECC		Tohono O'Odham Utility Authority	U.S.	62,006	62,006	-	-	0.007%	0.007%	0.000%	0.000%	0.001%
2018	WECC		Tonopah Irrigation District - APS	U.S.	35,128	35,128	-	-	0.004%	0.004%	0.000%	0.000%	0.001%
2018	WECC		Town of Center	U.S.	17,216	17,216	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		Town of Fredonia	U.S.	11,247	11,247	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Town of Wickenburg	U.S.	26,608	26,608	-	-	0.003%	0.003%	0.000%	0.000%	0.001%
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	8,606,271	8,606,271	-	-	0.992%	0.992%	0.000%	0.000%	0.187%
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - 1	U.S.	2,703,908	2,703,908	-	-	0.312%	0.312%	0.000%	0.000%	0.059%
2018	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	2,761,516	2,761,516	-	-	0.318%	0.318%	0.000%	0.000%	0.060%
2018	WECC		Truckee Donner Public Utility District	U.S.	158,790	158,790	-	-	0.018%	0.018%	0.000%	0.000%	0.003%

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
2018	WECC		Tucson Electric Power Company	U.S.	14,715,005	14,715,005	-	-	1.696%	1.696%	0.000%	0.000%	0.321%
2018	WECC		Turlock Irrigation District	U.S.	2,172,228	2,172,228	-	-	0.250%	0.250%	0.000%	0.000%	0.047%
2018	WECC		U.S. Army Yuma Proving Ground	U.S.	20,033	20,033	-	-	0.002%	0.002%	0.000%	0.000%	0.000%
2018	WECC		US Dept of Energy - Kirtland AFB	U.S.	429,527	429,527	-	-	0.050%	0.050%	0.000%	0.000%	0.009%
2018	WECC		Western Area Power - Loveland, CO	U.S.	172,939	172,939	-	-	0.020%	0.020%	0.000%	0.000%	0.004%
2018	WECC		Western Area Power - Loveland, CO - CM	U.S.	2,052,297	2,052,297	-	-	0.237%	0.237%	0.000%	0.000%	0.045%
2018	WECC		Western Area Power Administration - CRSP	U.S.	2,073,216	2,073,216	-	-	0.239%	0.239%	0.000%	0.000%	0.045%
2018	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	1,687,327	1,687,327	-	-	0.194%	0.194%	0.000%	0.000%	0.037%
2018	WECC		Western Area Power Administration-Sierra Nevada Region	U.S.	1,519,910	1,519,910	-	-	0.175%	0.175%	0.000%	0.000%	0.033%
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	384,534	384,534	-	-	0.044%	0.044%	0.000%	0.000%	0.008%
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	8,118	8,118	-	-	0.001%	0.001%	0.000%	0.000%	0.000%
2018	WECC		Wynn Las Vegas	U.S.	177,107	177,107	-	-	0.020%	0.020%	0.000%	0.000%	0.004%
2018	WECC		Wyoming Municipal Power Agency	U.S.	219,920	219,920	-	-	0.025%	0.025%	0.000%	0.000%	0.005%
2018	WECC		Yampa Valley Electric Association	U.S.	566,401	566,401	-	-	0.065%	0.065%	0.000%	0.000%	0.012%
TOTAL WECC					867,599,555	726,676,149	126,897,939	14,025,467	100.000%	83.757%	14.626%	1.617%	18.899%
TOTAL ERO					4,590,769,783	4,066,914,561	509,829,755	14,025,467	600.000%	520.054%	78.329%	1.617%	100.000%

Summary by Regional Entity					Total NEL (MWh)	U.S. NEL	Canada NEL	Mexico NEL					
2018	MRO				492,730,106	445,523,290	47,206,816	-	100.000%	90.419%	9.581%	0.000%	10.733%
2018	NPCC				620,311,000	284,586,000	335,725,000	-	100.000%	45.878%	54.122%	0.000%	13.512%
2018	RF				916,079,013	916,079,013	-	-	100.000%	100.000%	0.000%	0.000%	19.955%
2018	SERC				1,315,968,578	1,315,968,578	-	-	100.000%	100.000%	0.000%	0.000%	28.666%
2018	Texas RE				378,081,531	378,081,531	-	-	100.000%	100.000%	0.000%	0.000%	8.236%
2018	WECC				867,599,555	726,676,149	126,897,939	14,025,467	100.000%	83.757%	14.626%	1.617%	18.899%
Total					4,590,769,783	4,066,914,561	509,829,755	14,025,467	600.000%	520.054%	78.329%	1.617%	100.000%





2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, RE & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2018	MRO	C-1711	North Central Power Company	U.S.	1,968	1,968	-	-	626	626	-	-	1,342	1,342	-	-
2018	MRO	C-1442	Northeast Texas Electric Cooperative, Inc. (NTEC)	U.S.	169,525	169,525	-	-	53,907	53,907	-	-	115,618	115,618	-	-
2018	MRO	C-1231	NorthWestern Energy (NWE)	U.S.	85,074	85,074	-	-	27,053	27,053	-	-	58,021	58,021	-	-
2018	MRO	C-1712	NorthWestern Wisconsin Electric Company	U.S.	9,762	9,762	-	-	3,104	3,104	-	-	6,658	6,658	-	-
2018	MRO	C-1255	Oklahoma Gas and Electric Co. (OKGE)	U.S.	1,551,134	1,551,134	-	-	493,246	493,246	-	-	1,057,888	1,057,888	-	-
2018	MRO	C-1444	Oklahoma Municipal Power Authority (OMPA)	U.S.	148,557	148,557	-	-	47,240	47,240	-	-	101,317	101,317	-	-
2018	MRO	C-1232	Omaha Public Power District (OPPD)	U.S.	579,932	579,932	-	-	184,413	184,413	-	-	395,519	395,519	-	-
2018	MRO	C-1233	Otter Tail Power Company (OTP)	U.S.	259,564	259,564	-	-	82,539	82,539	-	-	177,025	177,025	-	-
2018	MRO	C-1651	Paragould Light, Water & Cable (PARAGOULD)	U.S.	31,298	31,298	-	-	9,952	9,952	-	-	21,345	21,345	-	-
2018	MRO	C-1725	Peoples Electric Cooperative (PEC)	U.S.	37,220	37,220	-	-	11,994	11,994	-	-	25,225	25,225	-	-
2018	MRO	C-1652	Piggott Municipal Light, Water & Sewer	U.S.	1,979	1,979	-	-	629	629	-	-	1,350	1,350	-	-
2018	MRO	C-1653	Poplar Bluff Municipal Utilities	U.S.	19,355	19,355	-	-	6,155	6,155	-	-	13,200	13,200	-	-
2018	MRO	C-1720	Resale Power Group of Iowa	U.S.	29,054	29,054	-	-	9,239	9,239	-	-	19,815	19,815	-	-
2018	MRO	C-1721	Rice Lake Utilities	U.S.	8,527	8,527	-	-	2,711	2,711	-	-	5,815	5,815	-	-
2018	MRO	C-1234	Rochester Public Utilities (RPU)	U.S.	168	168	-	-	54	54	-	-	115	115	-	-
2018	MRO	C-1473	Roosevelt County Electric Cooperative	U.S.	8,529	8,529	-	-	2,712	2,712	-	-	5,817	5,817	-	-
2018	MRO	C-1654	Sikeston Board of Municipal Utilities	U.S.	20,075	20,075	-	-	6,384	6,384	-	-	13,691	13,691	-	-
2018	MRO	C-1236	Southern Minnesota Municipal Power Agency (SMMMPA)	U.S.	142,628	142,628	-	-	45,354	45,354	-	-	97,274	97,274	-	-
2018	MRO	C-1257	Southwestern Public Service Co. Xcel Energy (SPS)	U.S.	1,129,068	1,129,068	-	-	359,033	359,033	-	-	770,035	770,035	-	-
2018	MRO	C-1256	Sunflower Electric Cooperative (SECI)	U.S.	236,960	236,960	-	-	75,351	75,351	-	-	161,609	161,609	-	-
2018	MRO	C-1475	Tri County Electric Cooperative, Inc. of Oklahoma (TRICEC)	U.S.	19,342	19,342	-	-	6,151	6,151	-	-	13,192	13,192	-	-
2018	MRO	C-1665	Upper Peninsula Power Co (UPPC)	U.S.	35,207	35,207	-	-	11,195	11,195	-	-	24,012	24,012	-	-
2018	MRO	C-1714	Village of Caddott	U.S.	659	659	-	-	210	210	-	-	450	450	-	-
2018	MRO	C-1260	Westar Energy (WR)	U.S.	1,092,712	1,092,712	-	-	347,472	347,472	-	-	745,240	745,240	-	-
2018	MRO	C-1239	Western Area Power Administration Rocky Mountain Region (t	U.S.	2,346	2,346	-	-	746	746	-	-	1,600	1,600	-	-
2018	MRO	C-1240	Western Area Power Administration Upper Great Plains (UM) (t	U.S.	465,228	465,228	-	-	147,938	147,938	-	-	317,290	317,290	-	-
2018	MRO	C-1259	Western Farmers Electric Cooperative (WFEC)	U.S.	477,222	477,222	-	-	151,752	151,752	-	-	325,470	325,470	-	-
2018	MRO	C-1501	West Texas Municipal Power Agency (WTMPA)	U.S.	149,633	149,633	-	-	47,582	47,582	-	-	102,051	102,051	-	-
2018	MRO	C-1241	Willmar Municipal Utilities (WLMRWL)	U.S.	13,091	13,091	-	-	4,163	4,163	-	-	8,928	8,928	-	-
2018	MRO	C-1242	Wisconsin Public Power, Inc. (East and West regions) (WPPI)	U.S.	269,285	269,285	-	-	85,630	85,630	-	-	183,655	183,655	-	-
2018	MRO	C-1983	Wolverine Power Marketing Cooperative	U.S.	2,110	2,110	-	-	671	671	-	-	1,439	1,439	-	-
2018	MRO	C-1244	Xcel Energy Company Northern States Power (NSP)	U.S.	2,235,178	2,235,178	-	-	710,765	710,765	-	-	1,524,413	1,524,413	-	-
TOTAL MRO					24,874,226	22,437,677	2,436,549	-	7,890,975	7,134,967	756,008	-	16,983,251	15,302,710	1,680,541	-
2018	NPCC	C-1336	New England	U.S.	6,131,930	6,131,930	-	-	1,977,380	1,977,380	-	-	4,154,551	4,154,551	-	-
2018	NPCC	C-1339	New York	U.S.	8,001,347	8,001,347	-	-	2,580,209	2,580,209	-	-	5,421,138	5,421,138	-	-
2018	NPCC	C-1337	Ontario	Canada	3,761,960	-	3,761,960	-	1,601,276	-	1,601,276	-	2,160,683	-	2,160,683	-
2018	NPCC	-	Quebec	Canada	5,208,353	-	5,208,353	-	2,213,431	-	2,213,431	-	2,994,921	-	2,994,921	-
2018		C-1341	Hydro Quebec	Canada	-	-	-	-	-	-	-	-	-	-	-	-
2018		C-1572	Regie	Canada	-	-	-	-	-	-	-	-	-	-	-	-
2018	NPCC	C-1705	New Brunswick	Canada	521,556	-	521,556	-	164,031	-	164,031	-	357,526	-	357,526	-
2018	NPCC	C-1340	Nova Scotia	Canada	431,061	-	431,061	-	181,143	-	181,143	-	249,918	-	249,918	-
TOTAL NPCC					24,056,207	14,133,277	9,922,930	-	8,717,470	4,557,588	4,159,882	-	15,338,737	9,575,689	5,763,048	-
2018	RF	C-1102	Cannelton Utilities	U.S.	611	611	-	-	243	243	-	-	369	369	-	-
2018	RF	C-1106	City of Crosswell	U.S.	1,622	1,622	-	-	643	643	-	-	979	979	-	-
2018	RF	C-1490	City of Lansing	U.S.	88,705	88,705	-	-	35,183	35,183	-	-	53,523	53,523	-	-
2018	RF	C-1120	Cloverland Electric Cooperative	U.S.	30,303	30,303	-	-	12,019	12,019	-	-	18,284	18,284	-	-
2018	RF	C-1122	CMS ERM Michigan LLC	U.S.	7,110	7,110	-	-	2,820	2,820	-	-	4,290	4,290	-	-
2018	RF	C-1124	Constellation New Energy (MECS-CONS)	U.S.	73,017	73,017	-	-	28,960	28,960	-	-	44,057	44,057	-	-
2018	RF	C-1123	Constellation New Energy (MECS-DET)	U.S.	84,725	84,725	-	-	33,604	33,604	-	-	51,121	51,121	-	-
2018	RF	C-1126	Consumers Energy Company	U.S.	1,376,436	1,376,436	-	-	545,925	545,925	-	-	830,511	830,511	-	-
2018	RF	C-1128	Detroit Edison Company	U.S.	1,881,005	1,881,005	-	-	746,048	746,048	-	-	1,134,957	1,134,957	-	-
2018	RF	C-1166	Duke Energy Indiana	U.S.	1,236,070	1,236,070	-	-	490,253	490,253	-	-	745,818	745,818	-	-
2018	RF	C-1135	Ferdinand Municipal Light & Water	U.S.	1,817	1,817	-	-	721	721	-	-	1,096	1,096	-	-
2018	RF	C-1646	FirstEnergy Solutions (MECS-CONS)	U.S.	36,051	36,051	-	-	14,299	14,299	-	-	21,752	21,752	-	-
2018	RF	C-1549	FirstEnergy Solutions (MECS-DET)	U.S.	3,889	3,889	-	-	1,542	1,542	-	-	2,346	2,346	-	-
2018	RF	C-1145	Hoosier Energy	U.S.	325,605	325,605	-	-	129,142	129,142	-	-	196,463	196,463	-	-
2018	RF	C-1148	Indiana Municipal Power Agency (DUKE CIN)	U.S.	128,838	128,838	-	-	51,100	51,100	-	-	77,738	77,738	-	-
2018	RF	C-1485	Indiana Municipal Power Agency (NIPSCO)	U.S.	17,900	17,900	-	-	7,100	7,100	-	-	10,800	10,800	-	-
2018	RF	C-1486	Indiana Municipal Power Agency (SIGE)	U.S.	24,589	24,589	-	-	9,753	9,753	-	-	14,837	14,837	-	-
2018	RF	C-1149	Indianapolis Power & Light Co.	U.S.	585,685	585,685	-	-	232,295	232,295	-	-	353,389	353,389	-	-
2018	RF	C-1666	Constellation New Energy(FKA Integrys Energy Services)	U.S.	12,455	12,455	-	-	4,940	4,940	-	-	7,515	7,515	-	-
2018	RF	C-1614	Just Energy (MECS-DET)	U.S.	315	315	-	-	125	125	-	-	190	190	-	-
2018	RF	C-1154	Michigan Public Power Agency	U.S.	156,883	156,883	-	-	62,223	62,223	-	-	94,660	94,660	-	-
2018	RF	C-1155	Michigan South Central Power Agency	U.S.	32,056	32,056	-	-	12,714	12,714	-	-	19,342	19,342	-	-
2018	RF	C-1158	MidAmerican Energy Company Retail	U.S.	167	167	-	-	66	66	-	-	101	101	-	-
2018	RF	C-1163	Northern Indiana Public Service Co.	U.S.	683,831	683,831	-	-	271,222	271,222	-	-	412,609	412,609	-	-





2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, RE & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2018	SERC	C-1080	Gainesville Regional Utilities	U.S.	61,435	61,435	-	-	29,741	29,741	-	-	31,694	31,694	-	-
2018	SERC	C-1081	Homestead, City of	U.S.	17,632	17,632	-	-	8,536	8,536	-	-	9,097	9,097	-	-
2018	SERC	C-1082	JEA	U.S.	423,872	423,872	-	-	205,198	205,198	-	-	218,674	218,674	-	-
2018	SERC	C-1083	Lakeland Electric	U.S.	105,199	105,199	-	-	50,927	50,927	-	-	54,272	54,272	-	-
2018	SERC	C-1626	Lee County Electric Cooperative, Inc	U.S.	139,769	139,769	-	-	67,663	67,663	-	-	72,106	72,106	-	-
2018	SERC	C-1661	City of Lake Worth	U.S.	15,879	15,879	-	-	7,687	7,687	-	-	8,192	8,192	-	-
2018	SERC	C-1084	Mount Dora, City of	U.S.	3,086	3,086	-	-	1,494	1,494	-	-	1,592	1,592	-	-
2018	SERC	C-1085	New Smyrna Beach, Utilities Commission of	U.S.	14,655	14,655	-	-	7,095	7,095	-	-	7,561	7,561	-	-
2018	SERC	C-1086	Orlando Utilities Commission	U.S.	203,461	203,461	-	-	98,496	98,496	-	-	104,965	104,965	-	-
2018	SERC	C-1087	Duke Energy Florida	U.S.	1,404,868	1,404,868	-	-	680,101	680,101	-	-	724,768	724,768	-	-
2018	SERC	C-1088	Quincy, City of	U.S.	4,191	4,191	-	-	2,029	2,029	-	-	2,162	2,162	-	-
2018	SERC	C-1089	Reedy Creek Improvement District	U.S.	39,896	39,896	-	-	19,314	19,314	-	-	20,582	20,582	-	-
2018	SERC	C-1090	St. Cloud, City of (OUC)	U.S.	26,720	26,720	-	-	12,935	12,935	-	-	13,785	13,785	-	-
2018	SERC	C-1091	Tallahassee, City of	U.S.	93,290	93,290	-	-	45,162	45,162	-	-	48,128	48,128	-	-
2018	SERC	C-1092	Tampa Electric Company	U.S.	683,561	683,561	-	-	330,914	330,914	-	-	352,647	352,647	-	-
2018	SERC	C-1093	Wauchula, City of	U.S.	2,250	2,250	-	-	1,089	1,089	-	-	1,161	1,161	-	-
2018	SERC	C-1094	Williston, City of	U.S.	1,204	1,204	-	-	583	583	-	-	621	621	-	-
2018	SERC	C-1095	Winter Park, City of	U.S.	14,804	14,804	-	-	7,167	7,167	-	-	7,637	7,637	-	-
2018	SERC	C-1724	Moore Haven, City of	U.S.	529	529	-	-	256	256	-	-	273	273	-	-
2018	SERC	C-1072	Florida Municipal Power Agency	U.S.	202,677	202,677	-	-	98,116	98,116	-	-	104,560	104,560	-	-
2018	SERC	C-1073	Seminole Electric Cooperative	U.S.	496,585	496,585	-	-	240,398	240,398	-	-	256,187	256,187	-	-
TOTAL SERC					43,534,098	43,534,098	-	-	21,074,975	21,074,975	-	-	22,459,123	22,459,123	-	-
2018	Texas RE	C-1019	ERCOT	U.S.	19,399,029	19,399,029	-	-	6,054,901	6,054,901	-	-	13,344,128	13,344,128	-	-
TOTAL ERCOT					19,399,029	19,399,029	-	-	6,054,901	6,054,901	-	-	13,344,128	13,344,128	-	-
2018	WECC		Alberta Electric System Operator	Canada	1,791,438	-	1,791,438	-	730,335	-	730,335	-	1,061,104	-	1,061,104	-
2018	WECC		British Columbia Hydro & Power Authority	Canada	3,202,347	-	3,202,347	-	1,009,705	-	1,009,705	-	2,192,642	-	2,192,642	-
2018	WECC		Centro Nacional de Control de Energia	Mexico	712,382	-	-	712,382	224,615	-	224,615	-	487,767	-	-	487,767
2018	WECC		3 Phases Renewables	U.S.	185	185	-	-	63	63	-	-	122	122	-	-
2018	WECC		Aguila Irrigation District - APS	U.S.	1,567	1,567	-	-	534	534	-	-	1,033	1,033	-	-
2018	WECC		Aha Macav Power Service	U.S.	879	879	-	-	299	299	-	-	580	580	-	-
2018	WECC		Ajo Improvement District	U.S.	514	514	-	-	175	175	-	-	339	339	-	-
2018	WECC		Arizona Electric Power Cooperative, Inc	U.S.	170,338	170,338	-	-	58,023	58,023	-	-	112,315	112,315	-	-
2018	WECC		Arizona Public Service Company	U.S.	1,359,114	1,359,114	-	-	462,962	462,962	-	-	896,152	896,152	-	-
2018	WECC		Arkansas River Power Authority (ARPA)	U.S.	12,566	12,566	-	-	4,281	4,281	-	-	8,286	8,286	-	-
2018	WECC		Avangrid Renewables	U.S.	4,711	4,711	-	-	1,605	1,605	-	-	3,106	3,106	-	-
2018	WECC		Avista Corporation	U.S.	442,765	442,765	-	-	150,821	150,821	-	-	291,944	291,944	-	-
2018	WECC		Barrick Goldstrike Mines Inc.	U.S.	65,650	65,650	-	-	22,363	22,363	-	-	43,287	43,287	-	-
2018	WECC		Basin Electric Power Cooperative - CM	U.S.	98,702	98,702	-	-	33,621	33,621	-	-	65,081	65,081	-	-
2018	WECC		Basin Electric Power Cooperative - NW	U.S.	38,300	38,300	-	-	13,046	13,046	-	-	25,253	25,253	-	-
2018	WECC		Basin Electric Power Cooperative - UG	U.S.	6,997	6,997	-	-	2,384	2,384	-	-	4,614	4,614	-	-
2018	WECC		Beartooth Electric Cooperative	U.S.	3,659	3,659	-	-	1,246	1,246	-	-	2,412	2,412	-	-
2018	WECC		Big Horn County Electric Cooperative	U.S.	3,295	3,295	-	-	1,122	1,122	-	-	2,172	2,172	-	-
2018	WECC		Black Hills Energy	U.S.	99,889	99,889	-	-	34,026	34,026	-	-	65,863	65,863	-	-
2018	WECC		Black Hills Power/Cheyenne Light Fuel & Power	U.S.	210,090	210,090	-	-	71,564	71,564	-	-	138,526	138,526	-	-
2018	WECC		Black Hills State University South Dakota	U.S.	941	941	-	-	320	320	-	-	620	620	-	-
2018	WECC		Bonneville Power Administration	U.S.	9,386	9,386	-	-	3,197	3,197	-	-	6,189	6,189	-	-
2018	WECC		Bonneville Power Administration-Power Services	U.S.	297,152	297,152	-	-	101,220	101,220	-	-	195,932	195,932	-	-
2018	WECC		Bonneville Power Administration-Transmission	U.S.	2,604,319	2,604,319	-	-	887,122	887,122	-	-	1,717,197	1,717,197	-	-
2018	WECC		Buckeye Water Conservation and Drainage District - APS	U.S.	1,073	1,073	-	-	365	365	-	-	707	707	-	-
2018	WECC		Bureau of Reclamation (Desalter) - c/o DSW EMMO	U.S.	5	5	-	-	2	2	-	-	3	3	-	-
2018	WECC		Bureau of Reclamation (Wellfield)	U.S.	483	483	-	-	164	164	-	-	318	318	-	-
2018	WECC		Burlington	U.S.	1,467	1,467	-	-	500	500	-	-	967	967	-	-
2018	WECC		Caesars Entertainment LLC/North	U.S.	2,927	2,927	-	-	997	997	-	-	1,930	1,930	-	-
2018	WECC		Caesars Entertainment LLC/South	U.S.	22,536	22,536	-	-	7,677	7,677	-	-	14,860	14,860	-	-
2018	WECC		California Independent System Operator	U.S.	10,444,797	10,444,797	-	-	3,557,863	3,557,863	-	-	6,886,934	6,886,934	-	-
2018	WECC		Calpine Energy Solutions, LLC.	U.S.	63,003	63,003	-	-	21,461	21,461	-	-	41,542	41,542	-	-
2018	WECC		Central Arizona Water Conservation District - 1	U.S.	113,814	113,814	-	-	38,769	38,769	-	-	75,045	75,045	-	-
2018	WECC		City of Aztec Electric Dept	U.S.	1,699	1,699	-	-	579	579	-	-	1,121	1,121	-	-
2018	WECC		City of Fallon	U.S.	4,504	4,504	-	-	1,534	1,534	-	-	2,970	2,970	-	-
2018	WECC		City of Farmington	U.S.	47,035	47,035	-	-	16,022	16,022	-	-	31,013	31,013	-	-
2018	WECC		City of Gallup	U.S.	9,855	9,855	-	-	3,357	3,357	-	-	6,498	6,498	-	-
2018	WECC		City of Henderson	U.S.	1,917	1,917	-	-	653	653	-	-	1,264	1,264	-	-
2018	WECC		City of Las Vegas	U.S.	2,024	2,024	-	-	689	689	-	-	1,334	1,334	-	-
2018	WECC		City of Mesa	U.S.	12,605	12,605	-	-	4,294	4,294	-	-	8,311	8,311	-	-
2018	WECC		City of North Las Vegas	U.S.	1,014	1,014	-	-	345	345	-	-	669	669	-	-
2018	WECC		City of Page	U.S.	3,769	3,769	-	-	1,284	1,284	-	-	2,485	2,485	-	-
2018	WECC		City of Redding	U.S.	35,555	35,555	-	-	12,111	12,111	-	-	23,444	23,444	-	-

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Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, RE & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2018	WECC		City of Roseville	U.S.	56,413	56,413	-	-	19,216	19,216	-	-	37,196	37,196	-	-
2018	WECC		City of Tacoma DBA Tacoma Power	U.S.	228,506	228,506	-	-	77,837	77,837	-	-	150,669	150,669	-	-
2018	WECC		City of Williams	U.S.	2,209	2,209	-	-	752	752	-	-	1,457	1,457	-	-
2018	WECC		Clark County Water Reclamation District	U.S.	3,767	3,767	-	-	1,283	1,283	-	-	2,484	2,484	-	-
2018	WECC		Colorado River Agency-Bureau of Indian Affairs	U.S.	1,162	1,162	-	-	396	396	-	-	766	766	-	-
2018	WECC		Colorado River Commission of Nevada	U.S.	17,959	17,959	-	-	6,118	6,118	-	-	11,842	11,842	-	-
2018	WECC		Colorado Springs Utilities	U.S.	221,985	221,985	-	-	75,616	75,616	-	-	146,369	146,369	-	-
2018	WECC		Colorado Springs Utilities	U.S.	3,198	3,198	-	-	1,089	1,089	-	-	2,108	2,108	-	-
2018	WECC		Constellation New Energy	U.S.	22,050	22,050	-	-	7,511	7,511	-	-	14,539	14,539	-	-
2018	WECC		Deseret Generation & Transmission Cooperative	U.S.	6,186	6,186	-	-	2,107	2,107	-	-	4,079	4,079	-	-
2018	WECC		Douglas Palisades / PUD No. 1 of DC	U.S.	901	901	-	-	307	307	-	-	594	594	-	-
2018	WECC		El Paso Electric Company	U.S.	404,609	404,609	-	-	137,824	137,824	-	-	266,785	266,785	-	-
2018	WECC		Electrical District #2	U.S.	9,516	9,516	-	-	3,242	3,242	-	-	6,275	6,275	-	-
2018	WECC		Electrical District #2 - Coolidge Generating Station	U.S.	437	437	-	-	149	149	-	-	288	288	-	-
2018	WECC		Electrical District No. 6 of Pinal County - APS	U.S.	49	49	-	-	17	17	-	-	32	32	-	-
2018	WECC		Electrical District No. 7 of Maricopa County - APS	U.S.	2,190	2,190	-	-	746	746	-	-	1,444	1,444	-	-
2018	WECC		Electrical District No. 8 of Maricopa County - APS	U.S.	17,535	17,535	-	-	5,973	5,973	-	-	11,562	11,562	-	-
2018	WECC		Francis E. Warren Air Force Base	U.S.	1,108	1,108	-	-	377	377	-	-	731	731	-	-
2018	WECC		Grand Valley Power	U.S.	11,775	11,775	-	-	4,011	4,011	-	-	7,764	7,764	-	-
2018	WECC		Harquahala Valley Power Districts - APS	U.S.	5,295	5,295	-	-	1,804	1,804	-	-	3,491	3,491	-	-
2018	WECC		Holy Cross Energy	U.S.	50,594	50,594	-	-	17,234	17,234	-	-	33,360	33,360	-	-
2018	WECC		Idaho Power Company	U.S.	746,060	746,060	-	-	254,134	254,134	-	-	491,926	491,926	-	-
2018	WECC		Imperial Irrigation District	U.S.	176,929	176,929	-	-	60,268	60,268	-	-	116,661	116,661	-	-
2018	WECC		Intermountain Rural Electric Association	U.S.	109,904	109,904	-	-	37,437	37,437	-	-	72,467	72,467	-	-
2018	WECC		Jicarilla Apache Nation Power Authority	U.S.	1,036	1,036	-	-	353	353	-	-	683	683	-	-
2018	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	14,616	14,616	-	-	4,979	4,979	-	-	9,637	9,637	-	-
2018	WECC		Kit Carson Electric Inc	U.S.	13,918	13,918	-	-	4,741	4,741	-	-	9,177	9,177	-	-
2018	WECC		Las Vegas Valley Water District	U.S.	5,137	5,137	-	-	1,750	1,750	-	-	3,387	3,387	-	-
2018	WECC		Little Colorado Water District	U.S.	26	26	-	-	9	9	-	-	17	17	-	-
2018	WECC		Los Angeles Department of Water and Power	U.S.	1,304,686	1,304,686	-	-	444,422	444,422	-	-	860,264	860,264	-	-
2018	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - APS	U.S.	2,538	2,538	-	-	865	865	-	-	1,673	1,673	-	-
2018	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	6,505	6,505	-	-	2,216	2,216	-	-	4,289	4,289	-	-
2018	WECC		Merced Irrigation District	U.S.	24,653	24,653	-	-	8,398	8,398	-	-	16,255	16,255	-	-
2018	WECC		MGM Resorts International	U.S.	43,260	43,260	-	-	14,736	14,736	-	-	28,524	28,524	-	-
2018	WECC		Modesto Irrigation District	U.S.	118,574	118,574	-	-	40,390	40,390	-	-	78,183	78,183	-	-
2018	WECC		Montana-Dakota Utilities Co.	U.S.	1,001	1,001	-	-	341	341	-	-	660	660	-	-
2018	WECC		Mt. Wheeler Power	U.S.	26,631	26,631	-	-	9,071	9,071	-	-	17,559	17,559	-	-
2018	WECC		Municipal Energy Agency of Nebraska	U.S.	30,091	30,091	-	-	10,250	10,250	-	-	19,841	19,841	-	-
2018	WECC		Municipal Energy Agency of Nebraska - 1	U.S.	8,425	8,425	-	-	2,870	2,870	-	-	5,555	5,555	-	-
2018	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	242	242	-	-	82	82	-	-	160	160	-	-
2018	WECC		Navajo Tribal Utility Authority-Arizona	U.S.	2,721	2,721	-	-	927	927	-	-	1,794	1,794	-	-
2018	WECC		Navajo Tribal Utility Authority-Colorado	U.S.	14,805	14,805	-	-	5,043	5,043	-	-	9,762	9,762	-	-
2018	WECC		Navajo Tribal Utility Authority-New Mexico	U.S.	8,734	8,734	-	-	2,975	2,975	-	-	5,759	5,759	-	-
2018	WECC		Nebraska Public Power Marketing	U.S.	177	177	-	-	60	60	-	-	117	117	-	-
2018	WECC		Needles Public Utilities Authority	U.S.	1,913	1,913	-	-	652	652	-	-	1,261	1,261	-	-
2018	WECC		Nevada Power Company dba NV Energy	U.S.	1,480,961	1,480,961	-	-	504,467	504,467	-	-	976,494	976,494	-	-
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	13,684	13,684	-	-	4,661	4,661	-	-	9,023	9,023	-	-
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - 1	U.S.	455,140	455,140	-	-	155,037	155,037	-	-	300,103	300,103	-	-
2018	WECC		Okanogan PUD	U.S.	29,391	29,391	-	-	10,011	10,011	-	-	19,379	19,379	-	-
2018	WECC		Overton Power District No. 5	U.S.	19,420	19,420	-	-	6,615	6,615	-	-	12,805	12,805	-	-
2018	WECC		PacifiCorp (EasternBalAuth)	U.S.	2,387,867	2,387,867	-	-	813,391	813,391	-	-	1,574,476	1,574,476	-	-
2018	WECC		PacifiCorp (IPC)	U.S.	94	94	-	-	32	32	-	-	62	62	-	-
2018	WECC		PacifiCorp (Portland)	U.S.	202	202	-	-	69	69	-	-	133	133	-	-
2018	WECC		PacifiCorp (WAPA-CO-MO)	U.S.	5,102	5,102	-	-	1,738	1,738	-	-	3,364	3,364	-	-
2018	WECC		PacifiCorp West (PACW)	U.S.	971,225	971,225	-	-	330,833	330,833	-	-	640,392	640,392	-	-
2018	WECC		Pend Oreille County PUD No. 1	U.S.	47,984	47,984	-	-	16,345	16,345	-	-	31,639	31,639	-	-
2018	WECC		Peppermill Hotel Casino	U.S.	1,967	1,967	-	-	670	670	-	-	1,297	1,297	-	-
2018	WECC		Platte River Power Authority	U.S.	153,867	153,867	-	-	52,413	52,413	-	-	101,455	101,455	-	-
2018	WECC		Portland General Electric Company	U.S.	834,859	834,859	-	-	284,382	284,382	-	-	550,477	550,477	-	-
2018	WECC		Public Service Company of Colorado (Xcel)	U.S.	1,468,839	1,468,839	-	-	500,338	500,338	-	-	968,501	968,501	-	-
2018	WECC		Public Service Company of Colorado (Xcel)-(WAPA-CO-MO)	U.S.	5,509	5,509	-	-	1,877	1,877	-	-	3,632	3,632	-	-
2018	WECC		Public Service Company of New Mexico	U.S.	439,456	439,456	-	-	149,694	149,694	-	-	289,762	289,762	-	-
2018	WECC		Public Utility District No. 1 of Chelan County	U.S.	82,872	82,872	-	-	28,229	28,229	-	-	54,643	54,643	-	-
2018	WECC		PUD No. 1 of Douglas County	U.S.	46,496	46,496	-	-	15,838	15,838	-	-	30,658	30,658	-	-
2018	WECC		PUD No. 2 of Grant County	U.S.	235,177	235,177	-	-	80,109	80,109	-	-	155,068	155,068	-	-
2018	WECC		PUD No. 2 of Grant County - 1	U.S.	4,353	4,353	-	-	1,483	1,483	-	-	2,870	2,870	-	-
2018	WECC		Puget Sound Energy, Inc.	U.S.	1,119,471	1,119,471	-	-	381,331	381,331	-	-	738,140	738,140	-	-
2018	WECC		Raton Public Service	U.S.	2,304	2,304	-	-	785	785	-	-	1,519	1,519	-	-
2018	WECC		Roosevelt Irrigation District - APS	U.S.	2,077	2,077	-	-	707	707	-	-	1,369	1,369	-	-

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 NERC and RE Assessments

Data Year	Regional Entity	NERC ID	Entity	Country	Total ERO Assessments (NERC, RE & WIRAB Costs)				Total NERC Assessments				Total Regional Entity Assessments (Including WIRAB Assessments)			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2018	WECC		Sacramento Municipal Utility District	U.S.	528,243	528,243	-	-	179,938	179,938	-	-	348,305	348,305	-	-
2018	WECC		Salt River Project	U.S.	1,434,087	1,434,087	-	-	488,500	488,500	-	-	945,587	945,587	-	-
2018	WECC		Seattle City Light	U.S.	454,340	454,340	-	-	154,764	154,764	-	-	299,576	299,576	-	-
2018	WECC		Shell Energy North America	U.S.	8,007	8,007	-	-	2,728	2,728	-	-	5,280	5,280	-	-
2018	WECC		Silver State Energy Association	U.S.	31,701	31,701	-	-	10,799	10,799	-	-	20,903	20,903	-	-
2018	WECC		Southern Nevada Water Authority	U.S.	5,769	5,769	-	-	1,965	1,965	-	-	3,804	3,804	-	-
2018	WECC		Switch-North	U.S.	1,258	1,258	-	-	429	429	-	-	830	830	-	-
2018	WECC		Switch-South	U.S.	25,089	25,089	-	-	8,546	8,546	-	-	16,543	16,543	-	-
2018	WECC		The Incorporated County of Los Alamos	U.S.	28,517	28,517	-	-	9,714	9,714	-	-	18,803	18,803	-	-
2018	WECC		Tohono O'Odham Utility Authority	U.S.	2,915	2,915	-	-	993	993	-	-	1,922	1,922	-	-
2018	WECC		Tonopah Irrigation District - APS	U.S.	1,652	1,652	-	-	563	563	-	-	1,089	1,089	-	-
2018	WECC		Town of Center	U.S.	809	809	-	-	276	276	-	-	534	534	-	-
2018	WECC		Town of Fredonia	U.S.	529	529	-	-	180	180	-	-	349	349	-	-
2018	WECC		Town of Wickenburg	U.S.	1,251	1,251	-	-	426	426	-	-	825	825	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	404,620	404,620	-	-	137,828	137,828	-	-	266,792	266,792	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - 1	U.S.	127,123	127,123	-	-	43,303	43,303	-	-	83,821	83,821	-	-
2018	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	129,831	129,831	-	-	44,225	44,225	-	-	85,606	85,606	-	-
2018	WECC		Truckee Donner Public Utility District	U.S.	7,465	7,465	-	-	2,543	2,543	-	-	4,922	4,922	-	-
2018	WECC		Tucson Electric Power Company	U.S.	691,820	691,820	-	-	235,658	235,658	-	-	456,162	456,162	-	-
2018	WECC		Turlock Irrigation District	U.S.	102,126	102,126	-	-	34,788	34,788	-	-	67,339	67,339	-	-
2018	WECC		U.S. Army Yuma Proving Ground	U.S.	942	942	-	-	321	321	-	-	621	621	-	-
2018	WECC		US Dept of Energy - Kirtland AFB	U.S.	20,194	20,194	-	-	6,879	6,879	-	-	13,315	13,315	-	-
2018	WECC		Western Area Power - Loveland, CO	U.S.	8,131	8,131	-	-	2,770	2,770	-	-	5,361	5,361	-	-
2018	WECC		Western Area Power - Loveland, CO - CM	U.S.	96,488	96,488	-	-	32,867	32,867	-	-	63,621	63,621	-	-
2018	WECC		Western Area Power Administration - CRSP	U.S.	97,471	97,471	-	-	33,202	33,202	-	-	64,269	64,269	-	-
2018	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	79,329	79,329	-	-	27,022	27,022	-	-	52,307	52,307	-	-
2018	WECC		Western Area Power Administration-Sierra Nevada Region	U.S.	71,458	71,458	-	-	24,341	24,341	-	-	47,117	47,117	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	18,079	18,079	-	-	6,158	6,158	-	-	11,920	11,920	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	382	382	-	-	130	130	-	-	252	252	-	-
2018	WECC		Wynn Las Vegas	U.S.	8,327	8,327	-	-	2,836	2,836	-	-	5,490	5,490	-	-
2018	WECC		Wyoming Municipal Power Agency	U.S.	10,339	10,339	-	-	3,522	3,522	-	-	6,817	6,817	-	-
2018	WECC		Yampa Valley Electric Association	U.S.	26,629	26,629	-	-	9,071	9,071	-	-	17,558	17,558	-	-
<b>TOTAL WECC</b>					<b>39,870,528.47</b>	<b>34,164,361</b>	<b>4,993,785</b>	<b>712,382</b>	<b>13,602,228</b>	<b>11,637,574</b>	<b>1,740,039</b>	<b>224,615</b>	<b>26,268,300</b>	<b>22,526,787</b>	<b>3,253,746</b>	<b>487,767</b>
<b>TOTAL ERO</b>					<b>188,723,535</b>	<b>170,657,889</b>	<b>17,353,264</b>	<b>712,382</b>	<b>72,011,373</b>	<b>65,130,829</b>	<b>6,655,929</b>	<b>224,615</b>	<b>116,712,162</b>	<b>105,527,060</b>	<b>10,697,335</b>	<b>487,767</b>
<b>Summary by Regional Entity</b>																
2018	MRO				24,874,226	22,437,677	2,436,549	-	7,890,975	7,134,967	756,008	-	16,983,251	15,302,710	1,680,541	-
2018	NPCC				24,056,207	14,133,277	9,922,930	-	8,717,470	4,557,588	4,159,882	-	15,338,737	9,575,689	5,763,048	-
2018	RF				36,989,446	36,989,446	-	-	14,670,823	14,670,823	-	-	22,318,623	22,318,623	-	-
2018	SERC				43,534,098	43,534,098	-	-	21,074,975	21,074,975	-	-	22,459,123	22,459,123	-	-
2018	Texas RE				19,399,029	19,399,029	-	-	6,054,901	6,054,901	-	-	13,344,128	13,344,128	-	-
2018	WECC				39,870,528	34,164,361	4,993,785	712,382	13,602,228	11,637,574	1,740,039	224,615	26,268,300	22,526,787	3,253,746	487,767
<b>Total</b>					<b>188,723,535</b>	<b>170,657,889</b>	<b>17,353,264</b>	<b>712,382</b>	<b>72,011,373</b>	<b>65,130,829</b>	<b>6,655,929</b>	<b>224,615</b>	<b>116,712,162</b>	<b>105,527,060</b>	<b>10,697,335</b>	<b>487,767</b>













2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	WECC		Holy Cross Energy	U.S.	17,234	17,234	-	-	16,880	16,880	-	-	-	-	354	354	-	-
2018	WECC		Idaho Power Company	U.S.	254,134	254,134	-	-	248,918	248,918	-	-	-	-	5,216	5,216	-	-
2018	WECC		Imperial Irrigation District	U.S.	60,268	60,268	-	-	59,031	59,031	-	-	-	-	1,237	1,237	-	-
2018	WECC		Intermountain Rural Electric Association	U.S.	37,437	37,437	-	-	36,669	36,669	-	-	-	-	768	768	-	-
2018	WECC		Jicarilla Apache Nation Power Authority	U.S.	353	353	-	-	346	346	-	-	-	-	7	7	-	-
2018	WECC		Kaiser Aluminum Fabricated Products LLC	U.S.	4,979	4,979	-	-	4,877	4,877	-	-	-	-	102	102	-	-
2018	WECC		Kit Carson Electric Inc	U.S.	4,741	4,741	-	-	4,644	4,644	-	-	-	-	97	97	-	-
2018	WECC		Las Vegas Valley Water District	U.S.	1,750	1,750	-	-	1,714	1,714	-	-	-	-	36	36	-	-
2018	WECC		Little Colorado Water District	U.S.	9	9	-	-	9	9	-	-	-	-	0	0	-	-
2018	WECC		Los Angeles Department of Water and Power	U.S.	444,422	444,422	-	-	435,300	435,300	-	-	-	-	9,121	9,121	-	-
2018	WECC		Maricopa County Municipal Water Conservation Dist No. 1 - AP	U.S.	865	865	-	-	847	847	-	-	-	-	18	18	-	-
2018	WECC		McMullen Valley Water Conservation & Drainage District - APS	U.S.	2,216	2,216	-	-	2,170	2,170	-	-	-	-	45	45	-	-
2018	WECC		Merced Irrigation District	U.S.	8,398	8,398	-	-	8,225	8,225	-	-	-	-	172	172	-	-
2018	WECC		MGM Resorts International	U.S.	14,736	14,736	-	-	14,434	14,434	-	-	-	-	302	302	-	-
2018	WECC		Modesto Irrigation District	U.S.	40,390	40,390	-	-	39,561	39,561	-	-	-	-	829	829	-	-
2018	WECC		Montana-Dakota Utilities Co.	U.S.	341	341	-	-	334	334	-	-	-	-	7	7	-	-
2018	WECC		Mt. Wheeler Power	U.S.	9,071	9,071	-	-	8,885	8,885	-	-	-	-	186	186	-	-
2018	WECC		Municipal Energy Agency of Nebraska	U.S.	10,250	10,250	-	-	10,040	10,040	-	-	-	-	210	210	-	-
2018	WECC		Municipal Energy Agency of Nebraska - 1	U.S.	2,870	2,870	-	-	2,811	2,811	-	-	-	-	59	59	-	-
2018	WECC		Navajo Agricultural Products Industry (NAPI)	U.S.	82	82	-	-	81	81	-	-	-	-	2	2	-	-
2018	WECC		Navajo Tribal Utility Authority-Arizona	U.S.	927	927	-	-	908	908	-	-	-	-	19	19	-	-
2018	WECC		Navajo Tribal Utility Authority-Colorado	U.S.	5,043	5,043	-	-	4,940	4,940	-	-	-	-	104	104	-	-
2018	WECC		Navajo Tribal Utility Authority-New Mexico	U.S.	2,975	2,975	-	-	2,914	2,914	-	-	-	-	61	61	-	-
2018	WECC		Nebraska Public Power Marketing	U.S.	60	60	-	-	59	59	-	-	-	-	1	1	-	-
2018	WECC		Needles Public Utilities Authority	U.S.	652	652	-	-	638	638	-	-	-	-	13	13	-	-
2018	WECC		Nevada Power Company dba NV Energy	U.S.	504,467	504,467	-	-	494,114	494,114	-	-	-	-	10,353	10,353	-	-
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC	U.S.	4,661	4,661	-	-	4,566	4,566	-	-	-	-	96	96	-	-
2018	WECC		NorthWestern Corp. dba NorthWestern Energy, LLC - 1	U.S.	155,037	155,037	-	-	151,855	151,855	-	-	-	-	3,182	3,182	-	-
2018	WECC		Okanogan PUD	U.S.	10,011	10,011	-	-	9,806	9,806	-	-	-	-	205	205	-	-
2018	WECC		Overton Power District No. 5	U.S.	6,615	6,615	-	-	6,479	6,479	-	-	-	-	136	136	-	-
2018	WECC		PacifiCorp (EasternBalAuth)	U.S.	813,391	813,391	-	-	796,697	796,697	-	-	-	-	16,694	16,694	-	-
2018	WECC		PacifiCorp (IPC)	U.S.	32	32	-	-	31	31	-	-	-	-	1	1	-	-
2018	WECC		PacifiCorp (Portland)	U.S.	69	69	-	-	67	67	-	-	-	-	1	1	-	-
2018	WECC		PacifiCorp (WAPA-CO-MO)	U.S.	1,738	1,738	-	-	1,702	1,702	-	-	-	-	36	36	-	-
2018	WECC		PacifiCorp West (PACW)	U.S.	330,833	330,833	-	-	324,043	324,043	-	-	-	-	6,790	6,790	-	-
2018	WECC		Pend Oreille County PUD No. 1	U.S.	16,345	16,345	-	-	16,010	16,010	-	-	-	-	335	335	-	-
2018	WECC		Peppermill Hotel Casino	U.S.	670	670	-	-	656	656	-	-	-	-	14	14	-	-
2018	WECC		Platte River Power Authority	U.S.	52,413	52,413	-	-	51,337	51,337	-	-	-	-	1,076	1,076	-	-
2018	WECC		Portland General Electric Company	U.S.	284,382	284,382	-	-	278,545	278,545	-	-	-	-	5,837	5,837	-	-
2018	WECC		Public Service Company of Colorado (Xcel)	U.S.	500,338	500,338	-	-	490,069	490,069	-	-	-	-	10,269	10,269	-	-
2018	WECC		Public Service Company of Colorado (Xcel)-(WAPA-CO-MO)	U.S.	1,877	1,877	-	-	1,838	1,838	-	-	-	-	39	39	-	-
2018	WECC		Public Service Company of New Mexico	U.S.	149,694	149,694	-	-	146,622	146,622	-	-	-	-	3,072	3,072	-	-
2018	WECC		Public Utility District No. 1 of Chelan County	U.S.	28,229	28,229	-	-	27,650	27,650	-	-	-	-	579	579	-	-
2018	WECC		PUD No. 1 of Douglas County	U.S.	15,838	15,838	-	-	15,513	15,513	-	-	-	-	325	325	-	-
2018	WECC		PUD No. 2 of Grant County	U.S.	80,109	80,109	-	-	78,465	78,465	-	-	-	-	1,644	1,644	-	-
2018	WECC		PUD No. 2 of Grant County - 1	U.S.	1,483	1,483	-	-	1,452	1,452	-	-	-	-	30	30	-	-
2018	WECC		Puget Sound Energy, Inc.	U.S.	381,331	381,331	-	-	373,505	373,505	-	-	-	-	7,826	7,826	-	-
2018	WECC		Raton Public Service	U.S.	785	785	-	-	769	769	-	-	-	-	16	16	-	-
2018	WECC		Roosevelt Irrigation District - APS	U.S.	707	707	-	-	693	693	-	-	-	-	15	15	-	-
2018	WECC		Sacramento Municipal Utility District	U.S.	179,938	179,938	-	-	176,245	176,245	-	-	-	-	3,693	3,693	-	-
2018	WECC		Salt River Project	U.S.	488,500	488,500	-	-	478,475	478,475	-	-	-	-	10,026	10,026	-	-
2018	WECC		Seattle City Light	U.S.	154,764	154,764	-	-	151,588	151,588	-	-	-	-	3,176	3,176	-	-
2018	WECC		Shell Energy North America	U.S.	2,728	2,728	-	-	2,672	2,672	-	-	-	-	56	56	-	-
2018	WECC		Silver State Energy Association	U.S.	10,799	10,799	-	-	10,577	10,577	-	-	-	-	222	222	-	-
2018	WECC		Southern Nevada Water Authority	U.S.	1,965	1,965	-	-	1,925	1,925	-	-	-	-	40	40	-	-
2018	WECC		Switch-North	U.S.	429	429	-	-	420	420	-	-	-	-	9	9	-	-
2018	WECC		Switch-South	U.S.	8,546	8,546	-	-	8,371	8,371	-	-	-	-	175	175	-	-
2018	WECC		The Incorporated County of Los Alamos	U.S.	9,714	9,714	-	-	9,515	9,515	-	-	-	-	199	199	-	-
2018	WECC		Tohono O'odham Utility Authority	U.S.	993	993	-	-	973	973	-	-	-	-	20	20	-	-
2018	WECC		Tonopah Irrigation District - APS	U.S.	563	563	-	-	551	551	-	-	-	-	12	12	-	-
2018	WECC		Town of Center	U.S.	276	276	-	-	270	270	-	-	-	-	6	6	-	-
2018	WECC		Town of Fredonia	U.S.	180	180	-	-	176	176	-	-	-	-	4	4	-	-
2018	WECC		Town of Wickenburg	U.S.	426	426	-	-	417	417	-	-	-	-	9	9	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	137,828	137,828	-	-	134,999	134,999	-	-	-	-	2,829	2,829	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - 1	U.S.	43,303	43,303	-	-	42,414	42,414	-	-	-	-	889	889	-	-
2018	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	44,225	44,225	-	-	43,317	43,317	-	-	-	-	908	908	-	-
2018	WECC		Truckee Donner Public Utility District	U.S.	2,543	2,543	-	-	2,491	2,491	-	-	-	-	52	52	-	-
2018	WECC		Tucson Electric Power Company	U.S.	235,658	235,658	-	-	230,821	230,821	-	-	-	-	4,837	4,837	-	-
2018	WECC		Turlock Irrigation District	U.S.	34,788	34,788	-	-	34,074	34,074	-	-	-	-	714	714	-	-
2018	WECC		U.S. Army Yuma Proving Ground	U.S.	321	321	-	-	314	314	-	-	-	-	7	7	-	-
2018	WECC		US Dept of Energy - Kirtland AFB	U.S.	6,879	6,879	-	-	6,738	6,738	-	-	-	-	141	141	-	-
2018	WECC		Western Area Power - Loveland, CO	U.S.	2,770	2,770	-	-	2,713	2,713	-	-	-	-	57	57	-	-
2018	WECC		Western Area Power - Loveland, CO - CM	U.S.	32,867	32,867	-	-	32,193	32,193	-	-	-	-	675	675	-	-

2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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
2018	WECC		Western Area Power Administration - CRSP	U.S.	33,202	33,202	-	-	32,521	32,521	-	-	-	-	681	681	-	-
2018	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	27,022	27,022	-	-	26,468	26,468	-	-	-	-	555	555	-	-
2018	WECC		Western Area Power Administration-Sierra Nevada Region	U.S.	24,341	24,341	-	-	23,841	23,841	-	-	-	-	500	500	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	6,158	6,158	-	-	6,032	6,032	-	-	-	-	126	126	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	130	130	-	-	127	127	-	-	-	-	3	3	-	-
2018	WECC		Wynn Las Vegas	U.S.	2,836	2,836	-	-	2,778	2,778	-	-	-	-	58	58	-	-
2018	WECC		Wyoming Municipal Power Agency	U.S.	3,522	3,522	-	-	3,450	3,450	-	-	-	-	72	72	-	-
2018	WECC		Yampa Valley Electric Association	U.S.	9,071	9,071	-	-	8,885	8,885	-	-	-	-	186	186	-	-
TOTAL WECC					13,602,228	11,637,574	1,740,039	224,615	13,609,272	11,398,730	1,990,537	220,005	-	-	(7,044)	238,844	(250,497)	4,610
TOTAL ERO					72,011,373	65,130,829	6,655,929	224,615	72,011,373	63,794,116	7,997,252	220,005	-	-	(0)	1,336,713	(1,341,323)	4,610

Summary by Regional Entity

2018	MRO				7,890,975	7,134,967	756,008	-	7,729,024	6,988,532	740,492	-	-	161,950	146,435	15,516	-	
2018	NPCC				8,717,470	4,557,588	4,159,882	-	9,730,274	4,464,051	5,266,223	-	-	(1,012,804)	93,538	(1,106,341)	-	
2018	RF				14,670,823	14,670,823	-	-	14,369,727	14,369,727	-	-	-	301,097	301,097	-	-	
2018	SERC				21,074,975	21,074,975	-	-	20,642,443	20,642,443	-	-	-	432,532	432,532	-	-	
2018	Texas RE				6,054,901	6,054,901	-	-	5,930,633	5,930,633	-	-	-	124,268	124,268	-	-	
2018	WECC				13,602,228	11,637,574	1,740,039	224,615	13,609,272	11,398,730	1,990,537	220,005	-	-	(7,044)	238,844	(250,497)	4,610
Total					72,011,373	65,130,829	6,655,929	224,615	72,011,373	63,794,116	7,997,252	220,005	-	-	(0)	1,336,713	(1,341,323)	4,610













2018 NEL Calculations and Allocations to Load Serving Entities (or Designee) for the 2020 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.AESO)				WIRAB Assessments			
					Total	US	Canada	Mexico	Total	US	Canada	Mexico	Total	US	Total	US	Canada	Total	US	Canada	Mexico	Total	US	Canada	Mexico
2018	WECC		Salt River Project	U.S.	945,587	945,587	-	-	985,373	985,373	-	-	(115,224)	(115,224)	-	-	-	40,763	40,763	-	-	34,676	34,676	-	-
2018	WECC		Seattle City Light	U.S.	299,576	299,576	-	-	312,180	312,180	-	-	(36,505)	(36,505)	-	-	-	12,914	12,914	-	-	10,986	10,986	-	-
2018	WECC		Shell Energy North America	U.S.	5,280	5,280	-	-	5,502	5,502	-	-	(643)	(643)	-	-	-	228	228	-	-	194	194	-	-
2018	WECC		Silver State Energy Association	U.S.	20,903	20,903	-	-	21,782	21,782	-	-	(2,547)	(2,547)	-	-	-	901	901	-	-	767	767	-	-
2018	WECC		Southern Nevada Water Authority	U.S.	3,804	3,804	-	-	3,964	3,964	-	-	(464)	(464)	-	-	-	164	164	-	-	140	140	-	-
2018	WECC		Switch-North	U.S.	830	830	-	-	865	865	-	-	(101)	(101)	-	-	-	36	36	-	-	30	30	-	-
2018	WECC		Switch-South	U.S.	16,543	16,543	-	-	17,239	17,239	-	-	(2,016)	(2,016)	-	-	-	713	713	-	-	607	607	-	-
2018	WECC		The Incorporated County of Los Alamos	U.S.	18,803	18,803	-	-	19,594	19,594	-	-	(2,291)	(2,291)	-	-	-	811	811	-	-	690	690	-	-
2018	WECC		Tohono O'odham Utility Authority	U.S.	1,922	1,922	-	-	2,003	2,003	-	-	(234)	(234)	-	-	-	83	83	-	-	70	70	-	-
2018	WECC		Tonopah Irrigation District - APS	U.S.	1,089	1,089	-	-	1,135	1,135	-	-	(133)	(133)	-	-	-	47	47	-	-	40	40	-	-
2018	WECC		Town of Center	U.S.	534	534	-	-	556	556	-	-	(65)	(65)	-	-	-	23	23	-	-	20	20	-	-
2018	WECC		Town of Fredonia	U.S.	349	349	-	-	363	363	-	-	(42)	(42)	-	-	-	15	15	-	-	13	13	-	-
2018	WECC		Town of Wickenburg	U.S.	825	825	-	-	860	860	-	-	(101)	(101)	-	-	-	36	36	-	-	30	30	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability	U.S.	266,792	266,792	-	-	278,018	278,018	-	-	(32,510)	(32,510)	-	-	-	11,501	11,501	-	-	9,784	9,784	-	-
2018	WECC		Tri-State Generation & Transmission Assoc. Inc - Reliability - 1	U.S.	83,821	83,821	-	-	87,347	87,347	-	-	(10,214)	(10,214)	-	-	-	3,613	3,613	-	-	3,074	3,074	-	-
2018	WECC		Tri-State Generation & Transmission Association, Inc.	U.S.	85,606	85,606	-	-	89,208	89,208	-	-	(10,432)	(10,432)	-	-	-	3,690	3,690	-	-	3,139	3,139	-	-
2018	WECC		Truckee Donner Public Utility District	U.S.	4,922	4,922	-	-	5,130	5,130	-	-	(600)	(600)	-	-	-	212	212	-	-	181	181	-	-
2018	WECC		Tucson Electric Power Company	U.S.	456,162	456,162	-	-	475,355	475,355	-	-	(55,586)	(55,586)	-	-	-	19,664	19,664	-	-	16,728	16,728	-	-
2018	WECC		Turlock Irrigation District	U.S.	67,339	67,339	-	-	70,172	70,172	-	-	(8,206)	(8,206)	-	-	-	2,903	2,903	-	-	2,469	2,469	-	-
2018	WECC		U.S. Army Yuma Proving Ground	U.S.	621	621	-	-	647	647	-	-	(76)	(76)	-	-	-	27	27	-	-	23	23	-	-
2018	WECC		US Dept of Energy - Kirtland AFB	U.S.	13,315	13,315	-	-	13,875	13,875	-	-	(1,623)	(1,623)	-	-	-	574	574	-	-	488	488	-	-
2018	WECC		Western Area Power - Loveland, CO	U.S.	5,361	5,361	-	-	5,587	5,587	-	-	(653)	(653)	-	-	-	231	231	-	-	197	197	-	-
2018	WECC		Western Area Power - Loveland, CO - CM	U.S.	63,621	63,621	-	-	66,298	66,298	-	-	(7,752)	(7,752)	-	-	-	2,743	2,743	-	-	2,333	2,333	-	-
2018	WECC		Western Area Power Administration - CRSP	U.S.	64,269	64,269	-	-	66,973	66,973	-	-	(7,832)	(7,832)	-	-	-	2,771	2,771	-	-	2,357	2,357	-	-
2018	WECC		Western Area Power Administration-Desert Southwest Region	U.S.	52,307	52,307	-	-	54,508	54,508	-	-	(6,374)	(6,374)	-	-	-	2,255	2,255	-	-	1,918	1,918	-	-
2018	WECC		Western Area Power Administration-Sierra Nevada Region	U.S.	47,117	47,117	-	-	49,099	49,099	-	-	(5,741)	(5,741)	-	-	-	2,031	2,031	-	-	1,728	1,728	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	11,920	11,920	-	-	12,422	12,422	-	-	(1,453)	(1,453)	-	-	-	514	514	-	-	437	437	-	-
2018	WECC		Western Area Power Administration-Upper Great Plains Region	U.S.	252	252	-	-	262	262	-	-	(31)	(31)	-	-	-	11	11	-	-	9	9	-	-
2018	WECC		Wynn Las Vegas	U.S.	5,490	5,490	-	-	5,721	5,721	-	-	(669)	(669)	-	-	-	237	237	-	-	201	201	-	-
2018	WECC		Wyoming Municipal Power Agency	U.S.	6,817	6,817	-	-	7,104	7,104	-	-	(831)	(831)	-	-	-	294	294	-	-	250	250	-	-
2018	WECC		Yampa Valley Electric Association	U.S.	17,558	17,558	-	-	18,297	18,297	-	-	(2,140)	(2,140)	-	-	-	757	757	-	-	644	644	-	-
<b>TOTAL WECC</b>					<b>26,268,300</b>	<b>22,526,787</b>	<b>3,253,746</b>	<b>487,767</b>	<b>28,027,000</b>	<b>23,474,600</b>	<b>4,099,320</b>	<b>453,080</b>	<b>(2,745,000)</b>	<b>(2,745,000)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(0)</b>	<b>971,091</b>	<b>(989,834)</b>	<b>18,743</b>	<b>986,300</b>	<b>826,096</b>	<b>144,259</b>	<b>15,944</b>
<b>TOTAL ERO</b>					<b>116,712,162</b>	<b>105,527,060</b>	<b>10,697,335</b>	<b>487,767</b>	<b>112,921,587</b>	<b>103,249,668</b>	<b>9,218,840</b>	<b>453,080</b>	<b>(6,300,345)</b>	<b>(6,300,345)</b>	<b>9,104,620</b>	<b>6,780,550</b>	<b>2,324,070</b>	<b>(0)</b>	<b>971,091</b>	<b>(989,834)</b>	<b>18,743</b>	<b>986,300</b>	<b>826,096</b>	<b>144,259</b>	<b>15,944</b>
<b>Summary by Regional Entity</b>																									
2018	MRO				16,983,251	15,302,710	1,680,541	-	17,540,969	15,860,428	1,680,541	-	(557,718)	(557,718)	-	-	-	-	-	-	-	-	-	-	-
2018	NPCC				15,338,737	9,575,689	5,763,048	-	6,354,117	2,915,139	3,438,978	-	(120,000)	(120,000)	9,104,620	6,780,550	2,324,070	-	-	-	-	-	-	-	-
2018	RF				22,318,623	22,318,623	-	-	22,586,250	22,586,250	-	-	(267,627)	(267,627)	-	-	-	-	-	-	-	-	-	-	-
2018	SERC				22,459,123	22,459,123	-	-	24,359,123	24,359,123	-	-	(1,900,000)	(1,900,000)	-	-	-	-	-	-	-	-	-	-	-
2018	Texas RE				13,344,128	13,344,128	-	-	14,054,128	14,054,128	-	-	(710,000)	(710,000)	-	-	-	-	-	-	-	-	-	-	-
2018	WECC				26,268,300	22,526,787	3,253,746	487,767	28,027,000	23,474,600	4,099,320	453,080	(2,745,000)	(2,745,000)	-	-	-	(0)	971,091	(989,834)	18,743	986,300	826,096	144,259	15,944
<b>Total</b>					<b>116,712,162</b>	<b>105,527,060</b>	<b>10,697,335</b>	<b>487,767</b>	<b>112,921,587</b>	<b>103,249,668</b>	<b>9,218,840</b>	<b>453,080</b>	<b>(6,300,345)</b>	<b>(6,300,345)</b>	<b>9,104,620</b>	<b>6,780,550</b>	<b>2,324,070</b>	<b>(0)</b>	<b>971,091</b>	<b>(989,834)</b>	<b>18,743</b>	<b>986,300</b>	<b>826,096</b>	<b>144,259</b>	<b>15,944</b>

**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 3**

**MIDWEST RELIABILITY ORGANIZATION**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



**MIDWEST  
RELIABILITY  
ORGANIZATION**

380 St. Peter St, Suite 800  
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651-855-1760

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# **Midwest Reliability Organization 2020 Business Plan and Budget**

**Approved by MRO Board of Directors**

**Date: June 20, 2019**

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## Introduction

The following table summarizes the 2020 Midwest Reliability Organization (MRO) budget.

TOTAL RESOURCES (in whole dollars)				
	2020 Budget	U.S.	Canada	Mexico
Statutory FTEs	63.00			
Non-statutory FTEs				
<b>Total FTEs</b>	63.00			
Statutory Expenses	\$ 17,305,969			
Non-Statutory Expenses	\$ -			
<b>Total Expenses</b>	\$ 17,305,969			
Statutory Inc(Dec) in Fixed Assets	\$ 235,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
<b>Total Inc(Dec) in Fixed Assets</b>	\$ 235,000			
Assessment Stabilization Adjustment				
Non-Statutory Stabilization Adjustment				
<b>Total Assessment Stabilization Adjustment</b>	\$ -			
Total Statutory Funding Requirement	\$ 17,540,969			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	\$ 17,540,969			
<b>Statutory Funding Assessments</b>	\$ 16,983,251	\$ 15,302,710	\$ 1,680,541	-
<b>Non-Statutory Fees</b>				
NEL	492,730,106	445,523,290	47,206,816	-
NEL%	100.00%	90.42%	9.58%	0.00%

**Table 1. MRO 2020 Budget**

## Organizational Overview

MRO is a Delaware nonprofit<sup>1</sup> corporation that is a cross-border Regional Entity<sup>2</sup> operating under a delegation agreement (Delegation Agreement) with the North American Electric Reliability Corporation (NERC)<sup>3</sup> and in accordance with the MRO Bylaws. The MRO Region

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

<sup>2</sup> 16 U.S.C. § 824o(a)(7)

<sup>3</sup> 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,<sup>4</sup> and the Canadian provinces of Saskatchewan and Manitoba. MRO's Delegation Agreement was approved by the Federal Energy Regulatory Commission (FERC)<sup>5</sup> pursuant to FERC's authority under the Federal Power Act (FPA)<sup>6</sup> and is effective through December 31, 2020.

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's<sup>7</sup> vision and mission.<sup>8</sup>

Further, MRO supports the ERO Enterprise Long-Term Strategy<sup>9</sup> and the ERO Enterprise Operating Plan.<sup>10</sup> In addition, 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 ERO Enterprise direction and address regional risks are reflected in MRO's Strategic Plan, Operating Objectives and Supporting Activities (MRO Strategic Plan).<sup>11</sup>

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<sup>4</sup> 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.

<sup>5</sup> *Order Conditionally Approving Revised Pro Forma Delegation Agreement and Revised Delegation Agreements with Regional Entities*, 153 FERC ¶61,135 (November 2015); *Letter Order Accepting Compliance Filing* (March 2016); *Order Granting Approvals in Connection with the Dissolution of Southwest Power Pool Regional Entity*, 163 FERC ¶61,094 (May 2018); *Letter Order Transfer of Registered Entities and Revised Regional Delegation Agreements* (December 2018).

<sup>6</sup> 16 U.S.C. 824 o (e)(4)

<sup>7</sup> The ERO Enterprise refers to NERC and the Regional Entities collectively.

<sup>8</sup> 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.

<sup>9</sup> ERO Enterprise Long-Term Strategy as approved by the NERC Board of Trustees November 9, 2017.

<sup>10</sup> ERO Enterprise Operating Plan as approved by the NERC Board of Trustees November 9, 2017. The ERO Enterprise Operating Plan, guided by the long-term strategy, identifies the ERO Enterprise's vision, mission, core principals, and goals, and provides a list of key contributing activities by the combined ERO Enterprise, NERC, and the Regional Entities as applicable to inform a rolling three-year operational planning horizon. The operating plan is reviewed biennially, in the same year the Reliability Issues Steering Committee (RISC) reviews and updates its report, and is updated as needed.

<sup>11</sup> The MRO Strategic Plan, Operating Objectives and Supporting Activities (approved March 2019) align with and support the ERO Enterprise Operating Plan and absent any unforeseen reliability issues or changes in priorities, are projected to remain relatively stable from year to year and are used for the purposes of projecting budget requirements.

In the MRO Strategic Plan, MRO adopted the ERO Enterprise Core Principles<sup>12</sup> to guide its conduct and behaviors. These principles incorporate the MRO themes of clarity, assurance, and results.

### **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.*
- **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 membership<sup>13</sup> consists of members and adjunct members. Adjunct members are entities that are not eligible to belong to an industry sector but have a material interest in reliability issues in the MRO Region. As of April 2019, MRO had 93 members, 7 of which are non-voting adjunct members. Each voting member organization belongs to one of seven industry sectors:

- Canadian Utility
- Cooperative
- Federal Power Marketing Agency
- Generator and Power Marketer

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<sup>12</sup> 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.

<sup>13</sup> Membership is voluntary and provides members with voting rights. There is no fee for membership.

- Investor Owned Utility
- Municipal Utility
- Transmission System Operator

Members are encouraged to participate in MRO organizational groups.

MRO's Board of Directors is a combination of independent and stakeholder directors. In 2020, the MRO Board will consist of 17 stakeholder directors elected by members from the 7 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's duties include, but are not limited to, the following:

- Govern the corporation and oversee all of its activities
- Establish and oversee all organizational groups
- Oversee accomplishment of all functions set forth in any delegation or other agreement with NERC or any governmental entity related to development, monitoring, and enforcement of Reliability Standards and related matters
- Approve, revise, and enforce member data and information requirements and related confidentiality requirements
- Establish and approve an annual budget
- Represent MRO in legal and regulatory proceedings
- Hire the President and CEO
- Establish board committees as necessary

The board has three committees:

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

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)

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 Representation on NERC Committees* sets out the processes for the organizational groups and MRO NERC Representatives.

### **Business Plan and Budget Development**

Each year, MRO prepares an annual Business Plan and Budget for the following calendar year. The Business Plan and Budget takes into account the ERO Enterprise Long-Term Strategy, the ERO Enterprise Operating Plan, 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.

Beginning with the 2020 Business Plan and Budget (2020 BP&B), NERC and the Regional Entities are implementing format revisions to the Statement of Activities report. These revisions

are intended to ensure that NERC and the Regional Entities report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), provide enhanced transparency of financing activity (e.g., debt borrowing, leased-financed asset purchases, and principal payments), and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). The goal of the new format is to improve 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. One of the format revisions is that the Statement of Activities will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (that resulted in depreciation having no impact on funding requirements or actual results).

In the 2020 BP&B document, the 2019 budget has been restated to reflect the new Statement of Activities reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, in the total entity and departmental Statement of Activities, the depreciation expense has been removed from the 2019 operating expense budget and projection, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budget and projection.

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 June 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 the Regional Entities' Business Plans and Budgets, a filing is submitted to FERC for approval, which is obtained in October or November of the year preceding the budget year.

### **Financial Policies and Controls**

An independent auditing firm annually audits MRO's financial statements. The FAC Charter states: The FAC "evaluates the performance of the external auditor and, if so determined, recommends to the board the reappointment of the external auditor or steps to replace the external auditor." Once hired, the independent auditor communicates directly with the FAC Chair and committee regarding audit matters. The FAC and MRO staff perform an annual review of the auditing firm's performance.

MRO's Purchase Requisition Policy and Contract Management Procedure govern the procurement of goods and services in excess of \$500. These protocols require that a purchase order be approved by MRO's Vice President Finance and Administration and the departmental director or vice president for all purchases in excess of \$500. Additionally, purchases in excess of \$10,000 must be approved by MRO's President and CEO.

MRO's Expense Statement Guidelines provide guidance on reasonable, reimbursable travel expenses. Expenses are reviewed for proper documentation and reasonableness by the employee's supervisor, the Accounting Specialist, and MRO's Vice President Finance and Administration.

MRO utilizes a system to track and report time by program area, project, and registered entity, when applicable. This system is also used to report and approve expenses.

In addition to its operating expenses, MRO's budget includes a cash reserve as specified in *Policy and Procedure 13: Reserves Policy*. (Note: this policy and procedure is a revision of our

*former policy and is pending approval by the MRO Board. References to the document will be as proposed.)*

Pursuant to the NERC ROP Section 1107.4, MRO 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.*

MRO proposes to revise its reserve policy to include an assessment stabilization reserve to mitigate year-to-year variations in assessments, which can result from a variety of factors, such as application of penalty funds collected, surplus funds available from a prior period, a need to replenish the targeted operating reserve, or significant but relatively short-term operating or capital spending needs.

MRO states that the goal of its reserves is 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, where the total budget reflects prudent fiscal discipline and good stewardship of resources. In addition, MRO may propose to set aside funds in a separate reserve account to be released in future periods to mitigate year-to-year variations in assessments.

The revised reserve policy would provide MRO the flexibility to address both the budget and assessments appropriately. The revised policy also provides flexibility to address unique situations with review and approval of the MRO Board. There would be an analysis performed during each budget review period. Except as otherwise approved by the MRO Board, reserve funds may not be used for any purpose inconsistent with this policy.

### **Accounting and Recordkeeping**

MRO uses Generally Accepted Accounting Principles (GAAP) to budget, 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 four statutory departments, each of which is dedicated to one or more statutory function or program area, and five general and administrative departments. Costs are tracked both by department and in the MRO Chart of Accounts. MRO employees track the time spent working in each program area, and labor costs are charged to the appropriate program area.

#### Statutory Departments

- The Compliance Monitoring Department encompasses MRO's oversight activities (including the development of Compliance Oversight Plans (COPs) and conducting 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) team 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 and ensures that mitigation activities not only address the immediate issue, but also prevent recurrence. In performing these tasks, RAM works closely with the entity's subject matter experts. In addition, RAM performs Inherent Risk Assessments (IRAs) that quantify the potential risks to the reliability and security of the bulk power system and documents the relevant requirements for individual entities based on that risk. This assessment is the foundation for the COPs. 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 and General Counsel. This director also serves as Deputy General Counsel.
- The Reliability Assessment & Performance Analysis (RAPA) Department is responsible for reliability assessments, performance analysis, event analysis, and situational awareness. 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, infrastructure and physical security. This department reports to a director who reports to the President and CEO.
- The Legal Department is led by the Vice President General Counsel, Corporate Secretary and Director of External Affairs who serves as the corporate secretary, leads MRO's communication efforts and external affairs function and, along with the Deputy General Counsel, provides legal advice to MRO.
- The Human Resource Department performs all employee-related functions, including recruitment, retention, and talent management. This is a new department; the function was previously administered within Finance and Administration. This department includes a director who reports to the Vice President and General Counsel.
- The Finance and Administration Department performs accounting, finance, budget, event planning, facilities management, and treasury functions and reports to the Vice President Finance and Administration. The Vice President Finance and Administration is also the Chief 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 and General Counsel.

### **Compensation Process and Standards of Conduct, Confidentiality, and Conflict of Interest Policies**

MRO bases employee compensation on certain pay principles. The current compensation structure uses a six-tiered structure with each tier divided into four scales reflecting experience and degree of knowledge, skills and abilities. MRO periodically engages a third party compensation expert to review this structure.

Each MRO employee is required to annually sign a Standards of Conduct, Confidentiality and Conflict of Interest form, attesting that he or she has read and understood these policies and will always act in MRO's interests and avoid conduct that may compromise his or her MRO responsibilities. MRO employees are prohibited from having a financial interest in any registered

entity and must avoid any financial ownership interests that will or might compromise their responsibilities to MRO.

### **2020 Strategic Priorities**

The MRO President and CEO has established three strategic priorities for MRO staff in 2020:

- Integrate entities that transitioned from Southwest Power Pool Regional Entity into MRO<sup>14</sup>
- Execute our delegated functions with a high degree of accuracy; and
- Align our efforts with others across the ERO Enterprise

#### **Integrate entities that transitioned from Southwest Power Pool Regional Entity into MRO.**

Integration of these registered entities follows existing MRO practices and principles. MRO staff will continue working to ensure that all registered entities have the opportunity to consider membership in the region, get to know MRO staff, participate on organizational groups and the board, and share their expertise with MRO staff and other stakeholders in the Region.

**Execute our delegated functions with a high degree of accuracy.** MRO will continue to identify, prioritize, and ensure effective and efficient mitigation of risks to the reliability and security of the North American bulk power system across the expanded 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 CMEP activities, event analysis, performance analysis, and reliability assessments.

**Align our efforts with others across the ERO Enterprise.** MRO is aligned with the ERO Enterprise and will continue to provide support to the ERO Enterprise goals. To that end, MRO supports the ERO Enterprise Long-Term Strategy and the ERO Enterprise Operating Plan. This is reflected in the MRO Strategic Plan that was approved by the MRO Board in March 2019. The ERO Enterprise Long-Term Strategy identifies six focus areas that guide MRO's 2020 activities:

1. Achieving and Maintaining Risk-Based Operations;
2. Being More Effective and Efficient;
3. Identifying and Assessing Emerging Risks;
4. Promote Leading Security Practices, Information Sharing and Analysis, and Resilience;
5. Knowledge Transfer and Effective Communications; and
6. Strengthening Engagement across North America.

### **2020 Key Strategic Goals and Supporting Activities**

MRO's 2020 BP&B and MRO's Strategic Plan reflect NERC and the Regional Entities' collaborative development of the ERO Enterprise Long-Term Strategy and the ERO Enterprise Operating Plan. The ERO Enterprise Long-Term Strategy looks ahead five to seven years to examine how changes in the industry and reliability ecosystem will affect how the ERO Enterprise achieves its vision and mission in the future. The ERO Enterprise Operating Plan is guided by the long-term strategy and identifies the ERO Enterprise's vision, mission, core principles, and goals, and provides a list of key contributing activities to be performed by NERC

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<sup>14</sup> This includes entities that were previously registered in the SPP RE Region as well as any other newly registered entity in the MRO Region.

or the Regional Entities, as applicable, to inform a rolling three-year operational planning horizon.<sup>15</sup>

In February 2019, the NERC Board of Trustees approved ERO 2019 Work Plan Priorities, which modestly revised the goals listed in the ERO Enterprise Operating Plan and described 2019 Key Objectives. MRO's business and strategic planning process incorporates the revised ERO Enterprise Operating Plan goals, the 2019 Key Objectives identified by NERC, and Key MRO Objectives and Supporting Activities that were developed to support NERC's objectives.

### **Goal 1: Maintain Risk-Responsive Reliability Standards**

#### Key 2019 Objectives

1. Complete phase I of the Operating & Planning (O&P) Standards Efficiency Review and seek FERC approval for sought-after retirements. Launch phase II of the O&P Standards Efficiency Review.
2. Initiate CIP Standards Efficiency Review and establish a process and timeline.
3. Complete Supply Chain efforts:
  - a. Complete the final report and gain board acceptance.
  - b. Develop a plan to realize the recommendations in the report.
  - c. Begin plan implementation.
  - d. Develop a plan to evaluate the effectiveness of the supply chain standard.

#### Key MRO Objectives and Supporting Activities

1. Work to improve the alignment of the CIP Reliability Standards and security.
2. Support NERC's evaluation of supply chain risks and mitigation strategies.

### **Goal 2: Strengthen Objective, Risk-Informed Entity Registration, Compliance Monitoring, Mitigation, and Enforcement**

#### Key 2019 Objectives

1. Complete registration and certification of the new Western Reliability Coordinators on time, consistent with dissolution of Peak Reliability.
2. Review effectiveness of the Compliance Guidance program and develop a plan to enhance it; evaluate opportunities to expand industry-led development of guidance to other program areas.
3. Provide training and education on control evaluations to industry with supporting guidance to the Regional Entities for consistent implementation in audits.
4. Improve alignment in processes across Regional Entities and, when appropriate, memorialize the aligned processes into Align project design.

#### Key MRO Objectives and Supporting Activities

1. Develop Compliance Oversight Plans (COPs) for MRO registered entities through a process that is aligned with the ERO and considers inherent risk, entity performance, and effectiveness of entity internal controls.
2. Decrease processing time for noncompliance.

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<sup>15</sup> The operating plan is reviewed biennially and updated as needed.



3. Participate and provide input into the development and deployment of the ERO Enterprise Align project (formerly known as CMEP Tool Project) to align processes across the ERO Enterprise (2019-2020).
4. Support NERC as the current CEA for SPP RTO as well as the transition of the CEA responsibilities to MRO (2019-2020).

### **Goal 3: Reduce Known Reliability Risks**

#### Key 2019 Objectives

1. For five priority risk areas: a) protection system misoperations, b) performance of inverters and associated control systems during frequency and voltage perturbations (PRC-024), c) planning and operating a bulk power system with increased dependency on natural gas, d) compromised situational awareness from the loss of Energy Management Systems, and e) distributed energy resources:
  - a. Identify the extent of bulk power system reliability risks from loss of situation awareness and distributed energy resources
  - b. Develop and begin to execute strategy to mitigate the risks from protection system misoperations, performance of inverters, and planning and operating a bulk power system with increased dependency on natural gas:
    - Identification of and syndication of best practices
    - New Reliability Guidelines and other tools
    - Enhancements to existing Reliability Standards
2. Finalize business case and begin implementation of new SAFNR Tool.

#### Key MRO Objectives and Supporting Activities

1. Effectively utilize MRO's advisory councils to support mitigation and outreach strategies for addressing identified risks.
2. Leverage MRO's EMS and protection system expertise to support ERO Enterprise efforts in addressing risks related to situational awareness, misoperations, and EMS failures, and to enhance developmental opportunities for staff.

### **Goal 4: Identify and Assess Emerging Reliability Risks**

#### Key 2019 Objectives

1. Develop and implement a plan to expand the consistent use of probabilistic-based assessment processes for reliability assessments with common tools and practices.
2. Expand the 2020 Long-Term Reliability Assessment to include considerations of energy assurance risks.
3. Scope out options and determine if work should be undertaken on the use of reserve margin targets given a) changing levels of resource "firmness," b) uncertainty around actual loads due to DER expansion, and c) recent experiences at managing tight reserve margins without incident (e.g., summer 2018 ERCOT).

#### Key MRO Objectives and Supporting Activities

1. Work with NERC, the MRO advisory councils, and the Regional Entities to assess bulk power system reliability and identify trends or leading indicators of potential new or emerging reliability risks.
2. Translate NERC reliability assessments to the impact on the MRO Region.
3. Seek and engage risk experts both inside and outside industry to better identify and educate MRO staff, organizational groups, and the MRO Board of Directors on unique, new, or emerging risks that may affect the region.

**Goal 5: Identify and Reduce Cyber and Physical Security Risks**

## Key 2019 Objectives

1. Information sharing:
  - a. Enhance data collection capabilities (membership, technology improvements, range of collected data).
  - b. Establish two-way sharing of machine-readable cyber indicators through the Cyber Automated Information Sharing System.
  - c. Implement E-ISAC Watch 24 hours/5 days per week by executing hiring plan (4 watch officers, 4 cyber analysts, 1 threat and countermeasures analyst), recognizing the need for some flexibility to address changing needs.
2. Analysis: Increase the identification of indicators of compromise.
3. Engagement:
  - a. Expand the Industry Engagement Program (IEP) and host a minimum of six IEP sessions covering each Regional Entity footprint.
  - b. Execute Canadian Engagement Strategy, including meetings with each interconnected province and gain Canadian support for the 2020 Business Plan and Budget.
  - c. Develop plans to address key findings for E-ISAC identified in the 2018 biennial Effectiveness Survey.
  - d. Design and execute GridEx V with expanded participation with special focus on cross-sector interdependencies and international collaboration.

## Key MRO Objective and Supporting Activities

1. Work with NERC, the MRO Security Advisory Council, and the Regional Entities to assess bulk power system security and identify potential or emerging cyber and physical security risks.
2. Improve regional coordination and information sharing regarding security threats by increasing engagement with E-ISAC and government agencies such as Department of Homeland Security (DHS), Royal Canadian Mounted Police (RCMP) and Federal Bureau of Investigation (FBI).
3. Actively participate in grid security exercises such as GridEx and in security programs, such as CRISP.
4. Continue to be responsive to state public utility requests for cyber security information.

**Goal 6: Improve ERO Enterprise Efficiency and Effectiveness**

## Key 2019 Objectives

1. NERC-based initiatives:
  - a. Develop and implement meeting and travel policy to support NERC stakeholder groups.
  - b. Finish the 2019 year at or below budget and maintain at least \$3.0M in operating reserves.
  - c. Develop plans to address key findings from the 2018 biennial Effectiveness Survey.
  - d. Work with the Members Executive Committee to develop metrics measuring the effectiveness of the E-ISAC.
2. ERO-Enterprise “coordination” initiatives:
  - a. Meet all milestones associated with Align project development.

- b. Evaluate opportunities to “centralize” and/or “standardize” processes (e.g., Consolidated Hearing Body).
  - c. Develop and implement meeting and travel policy for ERO Enterprise working groups.
3. Stakeholder engagement: In concert with stakeholder committees (MRC, technical committees), develop and implement plan to reconceive and transform technical committees to a lower cost model that preserves/improves effectiveness of stakeholder engagement.

#### Key MRO Objectives and Supporting Activities

1. Work with the MRO Board’s Organizational Group Oversight Committee to:
  - a. Fully implement MRO’s advisory council structure (2019).
  - b. Identify and reduce duplication of efforts across the region and ERO Enterprise.
  - c. Periodically assess areas for greater efficiency in the facilitation and coordination of MRO’s organizational groups.
2. Support ERO’s efforts to evaluate opportunities for resource sharing and/or joint purchasing agreements across the ERO.
3. Enhance succession planning for executive positions (2019).
4. Foster greater intentionality regarding ERO Enterprise and/or NERC work.

#### 2020 Overview of Cost Impacts

In February 2018, the NERC Board of Trustees approved the dissolution of SPP RE and the transfer of 100 SPP RE registered entities to MRO, which was completed on July 1, 2018. The 2018 Business Plan & Budget did not include costs related to this substantial transition. These costs were tracked separately and totaled \$2.2M. Significant efficiency gains have been recognized with the substantial regional combination of MRO and SPP RE, and cost savings have been realized from the total combined budgets of SPP RE and MRO and the NEL assessments charged to load-serving entities. MRO’s 2019 Business Plan & Budget was under development in 2018 during the early stages of the regional combination, and was approved by the MRO Board of Directors prior to completion of the transition. MRO’s leadership team now has a much better understanding of the resources and outreach required to conduct work in a much larger footprint. The 2020 BP&B is MRO’s first “normalized” plan since the transition, and incorporates more informed decisions on the necessary staffing, as well as increased registered entity outreach and engagement. Efficiency gains and cost savings in both budget and assessment dollars continue to be recognized in the 2020 BP&B.

The 2020 budget reflects an increase of \$1.6 million (9.8 percent) over the 2019 budget. Both the 2019 and 2020 MRO budgets are less than the 2018 combined budgets of SPP RE and MRO before the integration. MRO’s 2019 budget recognized a savings of \$4.8 million (23 percent), and the 2020 budget reflects a savings of \$3.2 million (16 percent) when compared with the combined 2018 budgets. The 2020 NEL rate remains lower than the original 2018 NEL rate before the integration. The NEL rate in 2019 experienced a net integrated savings of 19% and the 2020 NEL rate reflects a net integrated savings of 10% when compared to the combined 2018 budgets.

Other significant statutory expense changes (including capital expenditures) in MRO’s 2020 budget compared to its 2019 budget include:

- **Increase in FTEs.** MRO staff increases have been held to a minimum since the transition, and a re-evaluation of required resources occurred in early 2019. The resource assessment determined a need for four additional FTEs given work related to

the expanded footprint. Two of the FTEs will require technical industry expertise and two are administrative support staff. The total FTEs reflected in the 2020 budget is 63, which is 14 fewer than the 77 FTEs reflected in the combined 2018 budgets of SPP RE and MRO.

- **Increase in Contractor Support.** The majority of MRO's IT costs are in consultants and contracts. These costs consist of IT network essentials, such as switches, routers, access points, etc. These devices are connected to form a data communication network that is managed by MRO's IT staff with the support of external technical and professional IT resources. MRO relies on this network to access, share, and store information. Handling the inflow and outflow of information requires that the network be evaluated for capacity and security; expanding the IT network ensures that data flow and storage on and through the system is sufficient.
- **Increase in Meetings and Travel.** MRO staff plans to host one off-site workshop that is more accessible for the registered entities in the southern portion of MRO's region. Additionally, MRO's advisory councils will sponsor, and MRO will host, educational events to support mitigation and outreach strategies for addressing identified risks. Advisory council participation will include meetings and travel.
- **Increase in Operating Expenses.** Total Operating Expenses are increasing due to independent director compensation and additional HR and legal services.

#### **Other Non-Operating Expenses**

None

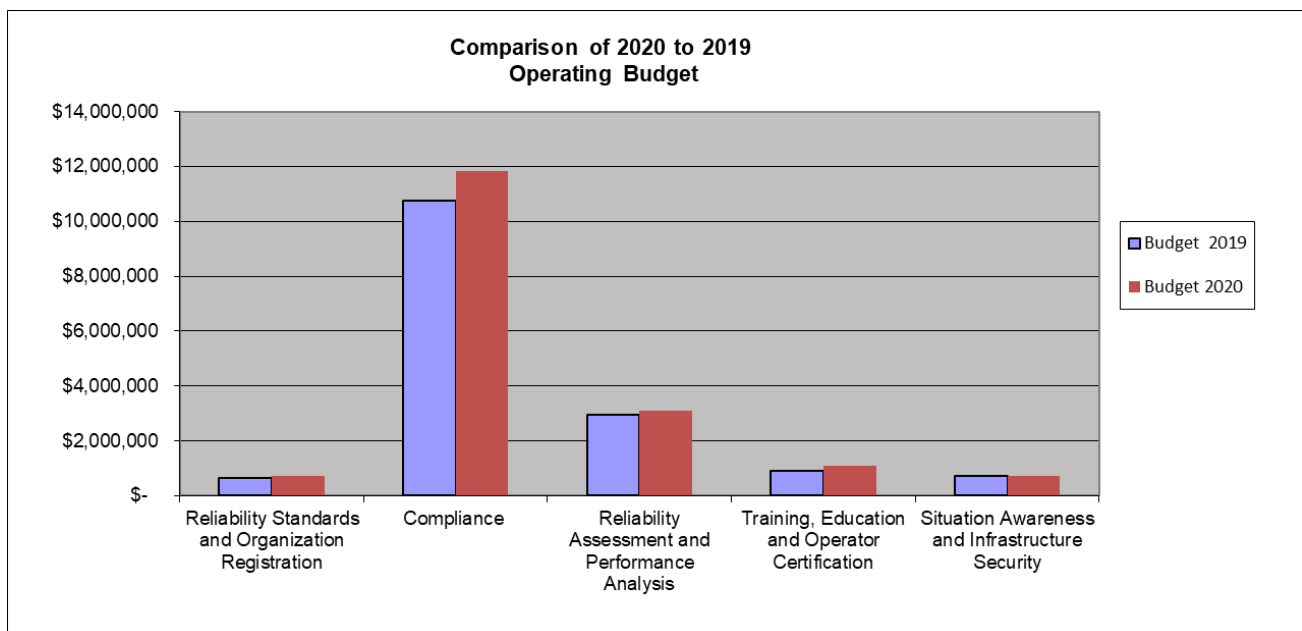
## Comparison of 2019 and 2020 Statutory Budgets

The following table and figure summarize and illustrate the MRO budget by program area.

Base Operating Budget	Budget 2019	Projection 2019	Budget 2020	Variance	
				2020 Budget v 2019 Budget	Variance %
Reliability Standards	657,230	657,230	736,148	78,918	12.0%
Compliance Enforcement and Organization Registration	10,763,709	10,763,709	11,847,844	1,084,136	10.1%
Reliability Assessments and Performance Analysis	2,955,071	2,955,071	3,113,418	158,347	5.4%
Training, Education and Operator Certification	897,792	897,792	1,106,166	208,373	23.2%
Total Situation Awareness and Infrastructure Security	706,551	706,551	737,393	30,842	4.4%
<b>Total</b>	<b>15,980,354</b>	<b>15,980,354</b>	<b>17,540,969</b>	<b>1,560,615</b>	<b>9.8%</b>

This table does not include an allocation of operating reserve requirements among the program areas. It combines Compliance Monitoring, Risk Assessment and Mitigation, and Enforcement.

**Table 2. Budget by Program Area**



This graphical representation does not include an allocation of operating reserve requirements among the program areas.

**Figure 1. Budget by Program Area Chart**

The following table displays total FTEs by program area.

Total FTEs by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs 2019 Budget <sup>1</sup>	Total FTEs 2020 Budget	Variance from 2019 Budget
<b>STATUTORY</b>						
<b>Operational Programs</b>						
Reliability Standards and Organization and Certification	1.88	1.88	2.08		2.08	0.20
Compliance	16.72	16.72	15.33		15.33	(1.39)
Compliance Risk Assessment and Mitigation	12.62	12.62	15.75		15.75	3.13
Compliance Enforcement	3.01	3.01	2.55		2.55	(0.46)
Training and Education	2.58	2.58	2.97		2.97	0.39
Reliability Assessment and Performance Analysis	8.33	8.33	8.38		8.38	0.05
Situation Awareness and Infrastructure Security	2.64	2.64	2.08		2.08	(0.56)
<b>Total FTEs Operational Programs</b>	<b>47.78</b>	<b>47.78</b>	<b>49.14</b>	<b>-</b>	<b>49.14</b>	<b>1.36</b>
<b>Administrative Programs</b>						
Technical Committees and Member Forums	-	-	-		-	-
General and Administrative	2.84	2.84	2.62		2.62	(0.22)
Legal and Regulatory	0.86	0.86	2.07		2.07	1.21
Information Technology	3.97	3.97	4.44		4.44	0.47
Human Resources	-	-	1.35		1.35	1.35
Finance and Accounting	3.55	3.55	3.38		3.38	(0.17)
<b>Total FTEs Administrative Programs</b>	<b>11.22</b>	<b>11.22</b>	<b>13.86</b>	<b>-</b>	<b>13.86</b>	<b>2.64</b>
<b>Total FTEs</b>	<b>59.00</b>	<b>59.00</b>	<b>63.00</b>	<b>-</b>	<b>63.00</b>	<b>4.00</b>

<sup>1</sup>A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

**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.

## 2019 Budget and Projection and 2020 Budget Comparisons

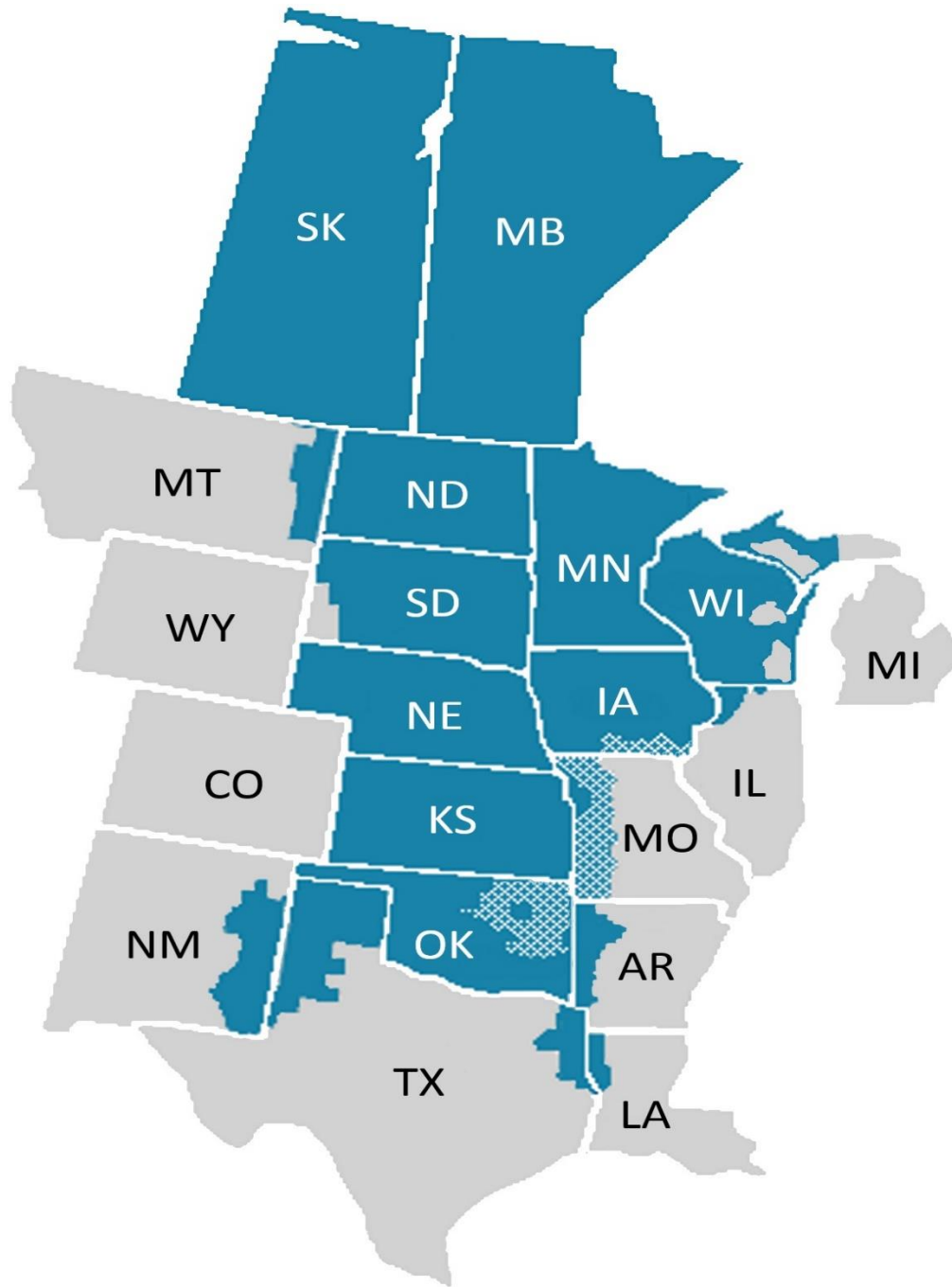
The following table lists the 2019 budget and projection compared to the 2020 budget.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>STATUTORY</b>					
	<b>2019 Budget</b>	<b>2019 Projection</b>	<b>Variance 2019 Projection v 2019 Budget Over(Under)</b>	<b>2020 Budget</b>	<b>Variance 2020 Budget v 2019 Budget Over(Under)</b>
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 15,471,669	\$ 15,471,669	\$ -	\$ 16,983,251	\$ 1,511,582
Assessment Stabilization Reserves	59,253	59,253	-	557,718	498,465
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshop Fees & Miscellaneous	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 15,530,922</b>	<b>\$ 15,530,922</b>	<b>\$ -</b>	<b>\$ 17,540,969</b>	<b>\$ 2,010,047</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 8,386,511	\$ 8,386,511	-	\$ 9,334,262	\$ 947,751
Payroll Taxes	539,356	539,356	-	586,604	47,248
Benefits	928,884	928,884	-	1,061,581	132,697
Retirement Costs	1,714,916	1,714,916	-	1,500,244	(214,672)
<b>Total Personnel Expenses</b>	<b>\$ 11,569,667</b>	<b>\$ 11,569,667</b>	<b>\$ -</b>	<b>\$ 12,482,691</b>	<b>\$ 913,024</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 145,850	\$ 145,850	\$ -	\$ 175,900	\$ 30,050
Travel	905,314	905,314	-	1,108,732	203,418
<b>Total Meeting Expenses</b>	<b>\$ 1,051,164</b>	<b>\$ 1,051,164</b>	<b>\$ -</b>	<b>\$ 1,284,632</b>	<b>\$ 233,468</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,100,010	\$ 1,100,010	\$ -	\$ 1,306,319	\$ 206,309
Office Rent	743,500	743,500	-	774,000	30,500
Office Costs	858,013	858,013	-	930,327	72,314
Professional Services	413,000	413,000	-	528,000	115,000
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 3,114,523</b>	<b>\$ 3,114,523</b>	<b>\$ -</b>	<b>\$ 3,538,646</b>	<b>\$ 424,123</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 15,735,354</b>	<b>\$ 15,735,354</b>	<b>\$ -</b>	<b>\$ 17,305,969</b>	<b>\$ 1,570,615</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ (204,432)</b>	<b>\$ (204,432)</b>	<b>\$ -</b>	<b>\$ 235,000</b>	<b>\$ 439,432</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>245,000</b>	<b>245,000</b>		<b>235,000</b>	<b>(10,000)</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 15,980,354</b>	<b>\$ 15,980,354</b>	<b>\$ -</b>	<b>\$ 17,540,969</b>	<b>\$ 1,560,615</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ (449,432)</b>	<b>\$ (449,432)</b>	<b>-</b>	<b>\$ -</b>	<b>\$ 449,432</b>
<b>FTEs</b>	<b>59.00</b>	<b>59.00</b>	<b>-</b>	<b>63.00</b>	<b>4.00</b>

**Table 4. 2019 Budget and Projection and 2020 Comparisons**

# Section A – Statutory Programs

## 2020 Business Plan and Budget





## Section A – Statutory Programs

### Reliability Standards, Organization Registration and Certification Program

The following table shows funding sources and related expenses for the Reliability Standards, Organization Registration and Certification Program.

Reliability Standards Program (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	1.88	2.08	0.20
Direct Expenses	\$ 459,992	\$ 484,696	\$ 24,704
Indirect Expenses	\$ 187,598	\$ 241,505	\$ 53,907
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 9,640	\$ 9,947	\$ 307
Total Funding Requirement	\$ 657,230	\$ 736,148	\$ 78,917

**Table A-1. Reliability Standards Budget**

### Reliability Standards

#### **Program Scope and Functional Description**

MRO Reliability Standards personnel support NERC's stakeholder-driven processes to develop and maintain risk-responsive Reliability Standards by providing feedback into the NERC process, conducting outreach during standards development, and providing clarity to industry on enforceable standards and requirements. MRO's Compliance Monitoring and Enforcement Program Advisory Council (CMEPAC) and its subgroups develop Standard Application Guides (SAGs), comment on NERC Standard Authorization Requests (SARs), and participate in standards development.

### Organization Registration and Certification

#### **Program Scope and Functional Description**

This department appropriately registers owners, operators, and users of the bulk power system subject to compliance with NERC Reliability Standards. The Certification Department ensures that organizations that apply for registration or are registered to perform the Reliability Coordinator, Balancing Authority, and Transmission Operator reliability functions meet or exceed minimum criteria demonstrating their capability to perform their incumbent tasks.

MRO will perform registration and certification activities for approximately 200 registered entities in the MRO Region. The number of certifications is expected to remain stable. MRO typically plans for 1.5 certifications per year and has budgeted for 2 in 2020.

This department supports ERO Enterprise efforts related to the ERO Enterprise Operating Plan **Goal 1: Maintain Risk-Responsive Reliability Standards:**

**Goal 1 Description:** Reliability Standards establish threshold requirements for ensuring 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 BPS. Reliability Standards are clear,

*timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.*

#### Key MRO Objectives and Supporting Activities

1. Work to improve the alignment of the CIP Reliability Standards and security.
2. Support NERC's evaluation of supply chain risks and mitigation strategies.

#### **Impact on Resource Needs**

Workload and travel for Reliability Standards will stabilize as staff conducts the supporting activities for Goal 1. Member travel will increase due to the development of standard application guidance for industry.

#### **Impact on Resource Needs**

Workload for Organizational Registration and Certification is expected to stabilize in 2020 following the additional work in 2018 and 2019 related to the integration of the SPP RE registered entities. Although no requests have been received, MRO is planning on performing two certifications in 2020.

#### **Reliability Standards, Organization Registration and Certification Program Resource Requirements**

#### **Overall Budget Change 2019-2020 (Increase \$78.9K, 12.0%)**

Overall, the workload in these areas is expected to stabilize in 2020. The MRO Standards Committee was sunset in 2019, which reduces member travel reimbursement costs for committee meetings. Subject Matter Expert Teams that develop standard application guidance are now supported by the CMEPAC.

Registration and Certification's workload will stabilize with the anticipation of two certification reviews in 2020.

The budget for this function has increased in 2020. 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.

#### **Personnel Expenses (Increase \$35K, 9.2%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned certain salaries and MRO's incentive program to compete with market increases.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

The savings and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

#### **Meeting Expenses (Decrease \$11K, 16.0%)**

There is an overall meeting expenses reduction due to less travel for the MRO Standards Committee that was sunset.

**Indirect Expenses (Increase \$53.9K, 28.7%)**

There is an overall increase in administrative services which are allocated to the operational programs based on the FTEs. Therefore, the increase is reflective of higher indirect costs and higher FTEs.

**Reliability Standards, Organization Registration and Certification Budget Detail**

The following table shows funding sources and related expenses for the Reliability Standards, Organization Registration, and Certification Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
STATUTORY					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 654,899	\$ 654,899		\$ 712,541	\$ 57,642
Assessment Stabilization Reserves	2,331	2,331		23,607	21,276
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 657,230</b>	<b>\$ 657,230</b>		<b>\$ 736,148</b>	<b>\$ 78,918</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 275,583	\$ 275,583	\$ -	\$ 306,795	\$ 31,212
Payroll Taxes	17,361	17,361	-	18,021	660
Benefits	29,628	29,628	-	35,471	5,843
Retirement Costs	61,782	61,782	-	59,260	(2,522)
<b>Total Personnel Expenses</b>	<b>\$ 384,354</b>	<b>\$ 384,354</b>	<b>\$ -</b>	<b>\$ 419,547</b>	<b>\$ 35,193</b>
<b>Meeting Expenses</b>					
Meetings	\$ 1,400	\$ 1,400	\$ -	\$ 1,400	\$ -
Travel	68,300	68,300	-	57,166	(11,134)
<b>Total Meeting Expenses</b>	<b>\$ 69,700</b>	<b>\$ 69,700</b>	<b>\$ -</b>	<b>\$ 58,566</b>	<b>\$ (11,134)</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	5,938	5,938	-	6,583	645
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 5,938</b>	<b>\$ 5,938</b>	<b>\$ -</b>	<b>\$ 6,583</b>	<b>\$ 645</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ 187,598</b>	<b>\$ 187,598</b>	<b>\$ -</b>	<b>\$ 241,505</b>	<b>\$ 53,907</b>
<b>Total Expenses (B)</b>	<b>\$ 647,590</b>	<b>\$ 647,590</b>	<b>\$ -</b>	<b>\$ 726,201</b>	<b>\$ 78,611</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ 9,640</b>	<b>\$ 9,640</b>	<b>\$ -</b>	<b>\$ 9,947</b>	<b>\$ 307</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>9,640</b>	<b>9,640</b>	<b>-</b>	<b>9,947</b>	<b>307</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 657,230</b>	<b>\$ 657,230</b>	<b>\$ -</b>	<b>\$ 736,148</b>	<b>\$ 78,918</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
FTEs	1.88	1.88	-	2.08	0.20

**Table A-2. Reliability Standards, Organization Registration and Certification 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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	32.35	33.63	1.28
Direct Expenses	\$ 7,369,740	\$ 7,782,298	\$ 412,559
Indirect Expenses	\$ 3,228,089	\$ 3,904,719	\$ 676,630
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 165,880	\$ 160,827	\$ (5,053)
Total Funding Requirement	\$ 10,763,709	\$ 11,847,844	\$ 1,084,137

**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 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. Enforcement processes noncompliances and violations using risk-based disposition methods.

MRO staff will perform CMEP activities for approximately 200 registered entities in 2020. The Compliance Monitoring Department will conduct approximately 25 audits in 2020. 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 and will encourage increased participation in the program throughout the region.

MRO's Compliance Monitoring, RAM, and Enforcement Departments support ERO Enterprise efforts to appropriately monitor and enforce compliance as outlined in the ERO Enterprise Operating Plan Goals 1-4.

#### Goal 1: Maintain Risk-Responsive Reliability Standards:

*Reliability Standards establish threshold requirements for ensuring 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 BPS. Reliability Standards are clear, timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.*

#### Key MRO Objectives and Supporting Activities

- Work to improve the alignment of the CIP Reliability Standards and security
- Support NERC's evaluation of supply chain risks and mitigation strategies

**Goal 2: Strengthen 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.*

**Key MRO Objectives and Supporting Activities**

1. Develop Compliance Oversight Plans (COPs) for MRO registered entities through a process that is aligned with the ERO and considers inherent risk, entity performance, and effectiveness of entity internal controls.
2. Decrease processing time for noncompliance.
3. Participate and provide input into the development and deployment of the ERO Enterprise Align project (formerly known as CMEP Tool Project) to align processes across the ERO Enterprise (2019-2020).
4. Support NERC as the current CEA for SPP RTO as well as the transition of the CEA responsibilities to MRO (2019-2020).

**Goal 3: Reduce 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.*

**Key MRO Objectives and Supporting Activities**

1. Effectively utilize MRO's advisory councils to support mitigation and outreach strategies for addressing identified risks.
2. Leverage MRO's EMS and protection system expertise to support ERO Enterprise efforts in addressing risks related to situational awareness, misoperations, and EMS failures, and to enhance developmental opportunities for staff.

**Goal 4: Identify and Assess 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.*

**Key MRO Objectives and Supporting Activities**

1. Work with NERC, the MRO advisory councils, and the Regional Entities to assess bulk power system reliability and identify trends or leading indicators of potential new or emerging reliability risks.
2. Translate NERC reliability assessments to the impact on the MRO Region.
3. Seek and engage risk experts both inside and outside industry to better identify and educate MRO staff, organizational groups, and the MRO Board of Directors on unique, new, or emerging risks that may affect the region.

**Impact on Resource Needs**

Staffing for these departments will increase by 1.28 FTEs in 2020 to accommodate work related to the continued integration of registered entities and implementation of new Reliability Standards, as well as administrative support. The CMEP departments will dedicate resources to support the development and implementation of the ERO Enterprise Align Project, a shared technology platform to provide consistency and alignment of CMEP processes across NERC and the Regional Entities.

## **Compliance Monitoring and Enforcement Program Resource Requirements**

### **Overall Budget Change 2019-2020 (Increase \$1.1M, 10.1%)**

The budget increase for 2020 is largely due to adding staff to accommodate work from the significant regional expansion in 2018. FTEs will be added to enhance compliance oversight plans for all entities and to conduct compliance oversight in the expanded footprint.

### **Personnel Expenses (Increase \$211K, 3.3%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned certain salaries and MRO's incentive program to compete with market increases.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

The savings and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

### **Meeting and Travel Expenses (Increase \$119K, 40.8%)**

There is an overall travel expense increase for both staff travel and member reimbursement, which reflects travel dollars for staff participation on ERO working groups and the Align project, and member travel for council face-to-face meetings.

### **Consultant and Contracts (Increase \$80K, 16%)**

Reflects the additional costs for the newly negotiated webCDMS contract for 2020.

### **Indirect Expenses (Increase \$676.6K, 21.0%)**

There is an overall increase in administrative services which are allocated to the operational programs based on the FTEs. Therefore, the increase is reflective of higher indirect costs and higher FTEs.

### Compliance Monitoring and Enforcement Program Budget Detail

The following table shows funding sources and related expenses for the Compliance Monitoring and Enforcement Program.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>COMPLIANCE MONITORING AND ENFORCEMENT PROGRAM</b>					
	<b>2019</b>	<b>2019</b>	<b>Variance</b>	<b>2020</b>	<b>Variance</b>
	<b>Budget</b>	<b>Projection</b>	<b>2019 Projection</b>	<b>Budget</b>	<b>2020 Budget</b>
			<b>v 2019 Budget</b>		<b>v 2019 Budget</b>
			<b>Over(Under)</b>		<b>Over(Under)</b>
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 10,723,591	\$ 10,723,591		\$ 11,466,158	\$ 742,567
Assessment Stabilization Reserves	40,118	40,118		381,686	341,568
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 10,763,709</b>	<b>\$ 10,763,709</b>	<b>\$ -</b>	<b>\$ 11,847,844</b>	<b>\$ 1,084,136</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,696,697	\$ 4,696,697	\$ -	\$ 4,934,233	\$ 237,536
Payroll Taxes	309,054	309,054	-	329,276	20,222
Benefits	504,160	504,160	-	574,079	69,919
Retirement Costs	895,415	895,415	-	779,300	(116,115)
<b>Total Personnel Expenses</b>	<b>\$ 6,405,326</b>	<b>\$ 6,405,326</b>	<b>\$ -</b>	<b>\$ 6,616,888</b>	<b>\$ 211,562</b>
<b>Meeting Expenses</b>					
Meetings	\$ 7,500	\$ 7,500	\$ -	\$ 9,500	\$ 2,000
Travel	284,314	284,314	-	401,366	117,052
<b>Total Meeting Expenses</b>	<b>\$ 291,814</b>	<b>\$ 291,814</b>	<b>\$ -</b>	<b>\$ 410,866</b>	<b>\$ 119,052</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ 503,000	\$ 503,000	\$ -	\$ 583,394	\$ 80,394
Office Rent	-	-	-	-	-
Office Costs	169,600	169,600	-	171,150	1,550
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 672,600</b>	<b>\$ 672,600</b>	<b>\$ -</b>	<b>\$ 754,544</b>	<b>\$ 81,944</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ 3,228,089</b>	<b>\$ 3,228,089</b>	<b>\$ -</b>	<b>\$ 3,904,719</b>	<b>\$ 676,630</b>
<b>Total Expenses (B)</b>	<b>\$ 10,597,828</b>	<b>\$ 10,597,828</b>	<b>\$ -</b>	<b>\$ 11,687,017</b>	<b>\$ 1,089,188</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ 165,880</b>	<b>\$ 165,880</b>	<b>\$ -</b>	<b>\$ 160,827</b>	<b>\$ (5,053)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 165,880</b>	<b>165,880</b>	<b>-</b>	<b>160,827</b>	<b>(5,053)</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 10,763,709</b>	<b>\$ 10,763,709</b>	<b>\$ -</b>	<b>\$ 11,847,844</b>	<b>\$ 1,084,136</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>32.35</b>	<b>32.35</b>	<b>-</b>	<b>33.63</b>	<b>1.28</b>

**Table A-4. Compliance Monitoring and Enforcement Budget Detail**



### Reliability Assessment and Performance Analysis Program

The following table lists the budget for the Reliability Assessment and Performance Analysis (RAPA) program.

Reliability Assessments and Performance Analysis (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	8.33	8.38	0.05
Direct Expenses	\$ 2,081,137	\$ 2,100,356	\$ 19,219
Indirect Expenses	\$ 831,220	\$ 972,987	\$ 141,766
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 42,713	\$ 40,075	\$ (2,638)
Total Funding Requirement	\$ 2,955,071	\$ 3,113,418	\$ 158,346

**Table A-5. Reliability Assessment and Performance Analysis (RAPA) Budget**

#### Program Scope and Functional Description

MRO's Reliability Assessment and Performance Analysis (RAPA) Department performs Reliability Assessments, System Analysis, Performance Analysis, and Event Analysis.<sup>16</sup> The Reliability Assessment and System Analysis (RASA) activities focus on the ERO's statutory responsibility to conduct assessments of the reliability and adequacy of the BES. Performance Analysis and Event Analysis carry out the ERO's statutory responsibility to perform assessments (detailed analysis of significant events and longer-term broad performance assessments) of the reliability and adequacy of the BES, including identifying potential issues of concern relating to system, equipment, and entity, that may indicate the need to develop and implement targeted interventions. This team participates in the Eastern Interconnection Reliability Assessment Group, reviews performance of protection systems based on events and misoperations, facilitates data collection and the development of power flow and dynamics simulation models for the Eastern Interconnection, reviews periodic data submissions (TADS, GADS, MIDAS and DADS), supports the MRO Reliability Advisory Council, and supports ERO Enterprise RAPA activities.

MRO's RAPA 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 Operating Plan Goals 3 and 4.

#### Goal 3: Reduce 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*

<sup>16</sup> MRO budgets these activities in one cost center. NERC divides these activities between two departments: Reliability Assessment and System Analysis, and Reliability Risk Management, which conducts Performance Analysis, Event Analysis, and Situational Awareness. Situational Awareness is budgeted through a separate cost center in MRO's budget.

### Key MRO Objectives and Supporting Activities

1. Effectively utilize MRO's advisory councils to support mitigation and outreach strategies for addressing identified risks.
2. Leverage MRO's EMS and protection system expertise to support ERO Enterprise efforts in addressing risks related to situational awareness, misoperations, and EMS failures, and to enhance developmental opportunities for staff.

### **Goal 4: Identify and Assess 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.*

### Key MRO Objectives and Supporting Activities

1. Work with NERC, the MRO advisory councils, and the Regional Entities to assess bulk power system reliability and identify trends or leading indicators of potential new or emerging reliability risks.
2. Translate NERC reliability assessments to the impact on the MRO Region.
3. Seek and engage risk experts both inside and outside industry to better identify and educate MRO staff, organizational groups, and the MRO Board of Directors on unique, new, or emerging risks that may affect the region.

### **Impact on Resource Needs**

Staffing levels will continue to be evaluated in 2020 based on workload. Outreach in this area will increase due to the expanded region and outreach efforts. RAPA will dedicate resources to support the development and implementation of the Align project.

## **Reliability Assessment and Performance Analysis Resource Requirements**

### **Overall Budget Change 2019-2020 (Increase \$158.3K, 5.4%)**

The budget increase for 2020 is due to staff and member travel. Increased participation of staff and members of MRO councils on NERC committees and ERO-wide projects is expected.

### **Personnel Expenses (Decrease \$62.4K, 3.5%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by organizational leadership changes.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease -41.7 percent.)

### **Meeting Expenses (Increase \$67.1K, 31.8%)**

There is an overall meeting and travel expenses increase due to additional council face-to-face meetings.

### **Office Costs (Increase \$14.5K, 87.9%)**

Reflects additional staff and encouraging more industry training.

**Indirect Expenses (Increase \$141.8K, 17.1%)**

There is an overall increase in administrative services which are allocated to the operational programs based on the FTEs.

## Reliability Assessment and Performance Analysis Budget Detail

The following table lists funding sources and related expenses for the Reliability Assessment and Performance Analysis Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2019 Budget & Projection, and 2020 Budget					
RELIABILITY ASSESSMENT and PERFORMANCE ANALYSIS					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 2,944,741	\$ 2,944,741		\$ 3,018,309	\$ 73,568
Assessment Stabilization Reserves	10,330	10,330		95,109	84,779
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 2,955,071</b>	<b>\$ 2,955,071</b>		<b>\$ 3,113,418</b>	<b>\$ 158,347</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 1,252,798	\$ 1,252,798	\$ -	\$ 1,272,880	\$ 20,082
Payroll Taxes	83,361	83,361	-	82,405	(956)
Benefits	133,407	133,407	-	140,066	6,659
Retirement Costs	302,771	302,771	-	214,605	(88,166)
<b>Total Personnel Expenses</b>	<b>\$ 1,772,337</b>	<b>\$ 1,772,337</b>	<b>\$ -</b>	<b>\$ 1,709,956</b>	<b>\$ (62,381)</b>
<b>Meeting Expenses</b>					
Meetings	\$ 7,500	\$ 7,500	\$ -	\$ 11,000	\$ 3,500
Travel	203,400	203,400	-	267,000	63,600
<b>Total Meeting Expenses</b>	<b>\$ 210,900</b>	<b>\$ 210,900</b>	<b>\$ -</b>	<b>\$ 278,000</b>	<b>\$ 67,100</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ 81,400	\$ 81,400	\$ -	\$ 81,400	\$ -
Office Rent	-	-	-	-	-
Office Costs	16,500	16,500	-	31,000	14,500
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 97,900</b>	<b>\$ 97,900</b>	<b>\$ -</b>	<b>\$ 112,400</b>	<b>\$ 14,500</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ 831,220</b>	<b>\$ 831,220</b>	<b>\$ -</b>	<b>\$ 972,987</b>	<b>\$ 141,766</b>
<b>Total Expenses (B)</b>	<b>\$ 2,912,358</b>	<b>\$ 2,912,358</b>	<b>\$ -</b>	<b>\$ 3,073,343</b>	<b>\$ 160,985</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ 42,713</b>	<b>\$ 42,713</b>	<b>\$ -</b>	<b>\$ 40,075</b>	<b>\$ (2,638)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 42,713</b>	<b>\$ 42,713</b>	<b>\$ -</b>	<b>\$ 40,075</b>	<b>\$ (2,638)</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 2,955,071</b>	<b>\$ 2,955,071</b>	<b>\$ -</b>	<b>\$ 3,113,418</b>	<b>\$ 158,347</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>8.33</b>	<b>8.33</b>	<b>-</b>	<b>8.38</b>	<b>0.05</b>

**Table A-6. Reliability Assessment and Performance Analysis Budget Detail**

## Training and Education Program

The following table summarizes the budget for the Training and Education program.

Training and Education (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	2.58	2.97	0.39
Direct Expenses	\$ 627,114	\$ 747,121	\$ 120,007
Indirect Expenses	\$ 257,449	\$ 344,841	\$ 87,393
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 13,229	\$ 14,203	\$ 974
Total Funding Requirement	\$ 897,793	\$ 1,106,166	\$ 208,373

**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 MRO does 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 2020. MRO and its advisory councils continually seek additional outreach opportunities.

MRO’s Training and Education program supports ERO Enterprise efforts to keep entity personnel trained and industry participants informed, in support of ERO Enterprise Operating Plan Goals 3, 4, and 5.

### Goal 3: Reduce 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*

#### Key MRO Objectives and Supporting Activities

1. Effectively utilize MRO’s advisory councils to support mitigation and outreach strategies for addressing identified risks.
2. Leverage MRO’s EMS and protection system expertise to support ERO Enterprise efforts in addressing risks related to situational awareness, misoperations, and EMS failures, and to enhance developmental opportunities for staff.

### Goal 4: Identify and Assess 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.*

### Key MRO Objectives and Supporting Activities

1. Work with NERC, the MRO advisory councils, and the Regional Entities to assess bulk power system reliability and identify trends or leading indicators of potential new or emerging reliability risks.
2. Translate NERC reliability assessments to the impact on the MRO Region.
3. Seek and engage risk experts both inside and outside industry to better identify and educate MRO staff, organizational groups, and the MRO Board of Directors on unique, new, or emerging risks that may affect the region.

### **Goal 5: Identify and Reduce 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 Cybersecurity Risk Information Sharing Program (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.*

### Key MRO Objective and Supporting Activities

1. Work with NERC, the MRO Security Advisory Council, and the Regional Entities to assess bulk power system security and identify potential or emerging cyber and physical security risks.
2. Improve regional coordination and information sharing regarding security threats by increasing engagement with E-ISAC and government agencies such as DHS, RCMP and FBI.
3. Actively participate in grid security exercises such as GridEx and in security programs, such as CRISP.
4. Continue to be responsive to state public utility requests for cyber security information.

### **Impact on Resource Needs**

Staffing for this program will increase by 0.39 FTE. Additional training, education, and outreach will be necessary to support the expanded footprint, resulting in an increase in travel and meeting expenses. Additionally, outreach will be necessary to obtain input into the SER and standards development projects.

### **Training and Education Resource Requirements**

#### **Overall Budget Change 2019-2020 (Increase \$208.4K, 23.2%)**

#### **Personnel Expenses (Increase \$96.0K, 19.5%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned certain salaries and MRO's incentive program to compete with market increases. Salaries were further impacted by organizational leadership changes.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

The savings and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment

was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Meeting Expenses (Increase \$24K, 17.7%)**

Additional costs related to the workshops, however, the same number to be offered in 2020 as 2019.

**Operating Expenses**

There are no office costs in this program because they are budgeted and recorded to the programs where the majority of that staff person's time is spent.

**Indirect Expenses (Increase \$87.4K, 33.9%)**

There is an overall increase in administrative services which are allocated to the operational programs based on the FTEs.

## Training and Education Budget Detail

The following table shows funding sources and related expenses for the Training and Education Program.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>TRAINING and EDUCATION</b>					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection	Budget	2020 Budget
			v 2019 Budget		v 2019 Budget
			Over(Under)		Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 894,593	\$ 894,593		\$ 1,072,457	\$ 177,865
Assessment Stabilization Reserves	3,200	3,200		33,708	30,509
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 897,792</b>	<b>\$ 897,792</b>		<b>\$ 1,106,166</b>	<b>\$ 208,373</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 357,617	\$ 357,617	\$ -	\$ 453,752	\$ 96,135
Payroll Taxes	22,481	22,481	-	22,296	(185)
Benefits	40,358	40,358	-	42,122	1,764
Retirement Costs	71,058	71,058	-	69,351	(1,707)
<b>Total Personnel Expenses</b>	<b>\$ 491,514</b>	<b>\$ 491,514</b>	<b>\$ -</b>	<b>\$ 587,521</b>	<b>\$ 96,007</b>
<b>Meeting Expenses</b>					
Meetings	\$ 66,000	\$ 66,000	\$ -	\$ 90,000	\$ 24,000
Travel	69,600	69,600	-	69,600	-
<b>Total Meeting Expenses</b>	<b>\$ 135,600</b>	<b>\$ 135,600</b>	<b>\$ -</b>	<b>\$ 159,600</b>	<b>\$ 24,000</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ 257,449</b>	<b>\$ 257,449</b>	<b>\$ -</b>	<b>\$ 344,841</b>	<b>\$ 87,393</b>
<b>Total Expenses (B)</b>	<b>\$ 884,563</b>	<b>\$ 884,563</b>	<b>\$ -</b>	<b>\$ 1,091,962</b>	<b>\$ 207,400</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ 13,229</b>	<b>\$ 13,229</b>	<b>\$ -</b>	<b>\$ 14,203</b>	<b>\$ 974</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 13,229</b>	<b>13,229</b>	<b>-</b>	<b>14,203</b>	<b>974</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 897,792</b>	<b>\$ 897,792</b>	<b>\$ -</b>	<b>\$ 1,106,166</b>	<b>\$ 208,373</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>2.58</b>	<b>2.58</b>	<b>-</b>	<b>2.97</b>	<b>0.39</b>

**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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	2.64	2.08	(0.56)
Direct Expenses	\$ 429,578	\$ 485,941	\$ 56,363
Indirect Expenses	\$ 263,436	\$ 241,505	\$ (21,931)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ 13,537	\$ 9,947	\$ (3,590)
Total Funding Requirement	\$ 706,551	\$ 737,393	\$ 30,842

**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 in responding to events as necessary.

This program supports the ERO Enterprise vision of a reliable and secure bulk power system and efforts to communicate risks to reliability as outlined in the ERO Enterprise Operating Plan Goals 1, 3, and 5.

#### Goal 1: Maintain Risk-Responsive Reliability Standards:

*Reliability Standards establish threshold requirements for ensuring 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 BPS. Reliability Standards are clear, timely, effective in mitigating risks to reliability, and consider cost-effectiveness/impact.*

#### Key MRO Objectives and Supporting Activities

1. Work to improve the alignment of the CIP Reliability Standards and security.
2. Support NERC's evaluation of supply chain risks and mitigation strategies.

#### Goal 3: Reduce 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*

#### Key MRO Objectives and Supporting Activities

1. Effectively utilize MRO's advisory councils to support mitigation and outreach strategies for addressing identified risks.
2. Leverage MRO's EMS and protection system expertise to support ERO Enterprise efforts in addressing risks related to situational awareness, misoperations, and EMS failures, and to enhance developmental opportunities for staff.

**Goal 5: Identify and Reduce 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 Cybersecurity Risk Information Sharing Program (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.*

**Key MRO Objective and Supporting Activities**

1. Work with NERC, the MRO Security Advisory Council, and the Regional Entities to assess bulk power system security and identify potential or emerging cyber and physical security risks.
2. Improve regional coordination and information sharing regarding security threats by increasing engagement with E-ISAC and government agencies such as DHS, RCMP and FBI.
3. Actively participate in grid security exercises such as GridEx and in security programs, such as CRISP.
4. Continue to be responsive to state public utility requests for cyber security information.

**Impact on Resource Needs**

In support of the ERO Enterprise Goal 3, 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 expected to increase as MRO addresses risks in the expanded footprint.

In support of ERO Enterprise Goal 5, this program has maintained its FTEs for non-CMEP activities related to infrastructure security. These activities require one subject matter expert FTE and one administrative support FTE for cyber and physical infrastructure security.

**Situation Awareness and Infrastructure Security Resource Requirements****Overall Budget Change 2019-2020 (Increase \$30.8K, 4.4%)**

The budget for this area will increase to realign and dedicate MRO staffing to the non-CMEP activities that support infrastructure security.

**Personnel Expenses (Increase \$28.8K, 8.2%)**

The average salary increase was budgeted at an increase of 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by organizational leadership changes.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was

due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Meeting Expenses (Increase \$27.6K, 42.5%)**

There is an overall increase in meeting and travel expenses due to additional council face-to-face meetings.

**Indirect Expenses (Decrease \$21.9K, 8.3%)**

There is an overall decrease in administrative services which are allocated to the operational programs based on the FTEs, because the FTEs in this program decreased.

### 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					
2019 Budget & Projection, and 2020 Budget					
SITUATION AWARENESS and INFRASTRUCTURE SECURITY					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection	Budget	2020 Budget
			v 2019 Budget		v 2019 Budget
			Over(Under)		Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 703,278	\$ 703,278	\$ -	\$ 713,786	\$ 10,509
Assessment Stabilization Reserves	3,274	3,274	-	23,607	20,333
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 706,551</b>	<b>\$ 706,551</b>		<b>\$ 737,393</b>	<b>\$ 30,842</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 230,429	\$ 230,429	\$ -	\$ 283,299	\$ 52,870
Payroll Taxes	15,160	15,160	-	17,712	2,552
Benefits	41,640	41,640	-	35,471	(6,169)
Retirement Costs	63,200	63,200	-	42,759	(20,441)
<b>Total Personnel Expenses</b>	<b>\$ 350,428</b>	<b>\$ 350,428</b>	<b>\$ -</b>	<b>\$ 379,241</b>	<b>\$ 28,813</b>
<b>Meeting Expenses</b>					
Meetings	\$ 1,450	\$ 1,450	\$ -	\$ 2,000	\$ 550
Travel	63,400	63,400	-	90,400	27,000
<b>Total Meeting Expenses</b>	<b>\$ 64,850</b>	<b>\$ 64,850</b>	<b>\$ -</b>	<b>\$ 92,400</b>	<b>\$ 27,550</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	14,300	14,300	-	14,300	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 14,300</b>	<b>\$ 14,300</b>	<b>\$ -</b>	<b>\$ 14,300</b>	<b>\$ -</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ 263,436</b>	<b>\$ 263,436</b>	<b>\$ -</b>	<b>\$ 241,505</b>	<b>\$ (21,931)</b>
<b>Total Expenses (B)</b>	<b>\$ 693,014</b>	<b>\$ 693,014</b>	<b>\$ -</b>	<b>\$ 727,446</b>	<b>\$ 34,432</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ 13,537</b>	<b>\$ 13,537</b>	<b>\$ -</b>	<b>\$ 9,947</b>	<b>\$ (3,590)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 13,537</b>	<b>13,537</b>	<b>-</b>	<b>9,947</b>	<b>(3,590)</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 706,551</b>	<b>\$ 706,551</b>	<b>\$ -</b>	<b>\$ 737,393</b>	<b>\$ 30,842</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	2.64	2.64	-	2.08	(0.56)

**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		
	2019 Budget	2020 Budget	Increase (Decrease)	2019 Budget	2020 Budget	Increase (Decrease)
General and Administrative	\$1,075,707	\$1,009,431	-\$66,276	2.84	2.62	(0.22)
Legal and Regulatory	\$650,890	\$925,510	\$274,620	0.86	2.07	1.21
Information Technology	\$1,495,582	\$1,784,365	\$288,783	3.97	4.44	0.47
Human Resources	\$0	\$433,001	\$433,001	0.00	1.35	1.35
Finance and Accounting	\$1,790,613	\$1,788,250	-\$2,363	3.55	3.38	(0.17)
Total Administrative Services	\$5,012,792	\$5,940,557	\$927,765	11.22	13.86	2.64

**Table A-11. Administrative Services Budget**

### Program Scope and Functional Description

MRO's Administrative Services area is the business and administrative functions of the organization, including legal and regulatory, 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 supports ERO Enterprise efforts to be effective and efficient as outlined in the ERO Enterprise Operating Plan **Goal 6: Improve ERO Enterprise Efficiency and Effectiveness:**

**Goal 6 Description:** *The ERO Enterprise embraces transparency, collaboration, consistency, quality, efficiency, and timeliness of results and operates as a coordinated and collaborative enterprise.*

### Key MRO Objectives and Supporting Activities

1. Work with the MRO Board's Organizational Group Oversight Committee to:
  - a. Fully implement MRO's advisory council structure (2019).
  - b. Identify and reduce duplication of efforts across the region and ERO Enterprise.
  - c. Periodically assess areas for greater efficiency in the facilitation and coordination of MRO's organizational groups.
2. Support ERO's efforts to evaluate opportunities for resource sharing and/or joint purchasing agreements across the ERO.
3. Enhance succession planning for executive positions (2019).
4. Foster greater intentionality regarding ERO Enterprise and/or NERC work.

### 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. This allocation provides improved financial perspective for the delegated functions.

### **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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	2.84	2.62	(0.22)
Total Direct Expenses	\$ 1,075,707	\$ 1,009,431	\$ (66,276)
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ (449,432)	\$ -	\$ 449,432

**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 adequate attention to the execution of MRO's strategic priorities and the day-to-day management of the corporation, including facilities and maintenance, 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 2019-2020 (Decrease \$66.3K, 6.2%)****Personnel Expenses (Decrease \$87.7K, 11.4%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by the organizational leadership changes. There was an FTE reduction of 0.22.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Meeting Expenses (Increase \$11.4K, 4.9%)**

There is an increase in overall meeting and travel expenses due to the additional council face-to-face meetings.

**Operating Expenses (Increase \$10K, 13.2%)**

There is an increase for media training.

## General and Administrative Budget Detail

The following table shows funding sources and related expenses for the General and Administrative Program.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>GENERAL and ADMINISTRATIVE</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ (449,432)	\$ (449,432)	\$ -	\$ -	\$ 449,432
Assessment Stabilization Reserves	-	-	-	-	-
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ (449,432)</b>	<b>\$ (449,432)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 449,432</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 582,342	\$ 582,342	\$ -	\$ 532,287	\$ (50,055)
Payroll Taxes	26,054	26,054	-	21,762	(4,292)
Benefits	45,483	45,483	-	44,339	(1,144)
Retirement Costs	115,028	115,028	-	82,843	(32,185)
<b>Total Personnel Expenses</b>	<b>\$ 768,907</b>	<b>\$ 768,907</b>	<b>\$ -</b>	<b>\$ 681,231</b>	<b>\$ (87,676)</b>
<b>Meeting Expenses</b>					
Meetings	\$ 60,000	\$ 60,000	\$ -	\$ 60,000	\$ -
Travel	171,300	171,300	-	182,700	11,400
<b>Total Meeting Expenses</b>	<b>\$ 231,300</b>	<b>\$ 231,300</b>	<b>\$ -</b>	<b>\$ 242,700</b>	<b>\$ 11,400</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ 32,000	\$ 32,000	\$ -	\$ 32,000	\$ -
Office Rent	-	-	-	-	-
Office Costs	43,500	43,500	-	53,500	10,000
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 75,500</b>	<b>\$ 75,500</b>	<b>\$ -</b>	<b>\$ 85,500</b>	<b>\$ 10,000</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ (1,075,707)</b>	<b>\$ (1,075,707)</b>	<b>\$ -</b>	<b>\$ (1,009,431)</b>	<b>\$ 66,276</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ (449,432)</b>	<b>\$ (449,432)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 449,432</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ (449,432)</b>	<b>\$ (449,432)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 449,432</b>
FTEs	2.84	2.84	-	2.62	(0.22)

Table A-13. General and Administrative Budget Detail



**Legal and Regulatory**

The following table lists the Legal and Regulatory budget.

<b>Legal and Regulatory</b> (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	0.86	2.07	1.21
Total Direct Expenses	\$ 650,890	\$ 925,510	\$ 274,620
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Working Capital Requirement	\$ -	\$ -	\$ -

**Table A-14. Legal and Regulatory Budget**

**Program Scope and Functional Description**

MRO has a Vice President and General Counsel and a Deputy General Counsel to provide advice to the board, the President and CEO, and staff on legal and regulatory matters affecting MRO. Both of these individuals have additional responsibilities outside the legal and regulatory function. MRO may use external specialized legal resources on an as-needed basis, such as for corporate matters, employee benefit plan issues, and significant policy or regulatory matters. The Deputy General Counsel also serves as the Director of Enforcement.

**Legal and Regulatory Resource Requirements****Overall Budget Change 2019-2020 (Increase \$274.6K, 42.2%)**

The increase in this indirect program area funds additional Professional Services related to independent board member fees and outside legal services.

**Personnel Expenses (Increase \$172.1K, 62.7%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by organizational leadership changes. There was also an FTE increase of 1.21. The Deputy General Counsel, who also serves as Director of Enforcement, will spend some time in Legal. There will also be some administrative support spending time in this department.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Office Costs (Increase \$8.6K, 189.4%)**

This increase is due to the filing and registration fees moving from Finance to Legal. This increase is offset by a decrease in the other program area.

**Professional Fees (Increase \$94.0K, 26.6%)**

Outside legal costs increased \$50K (100 percent) based on trending of recent years' actuals. Independent Trustee fees increased \$44K (16.0 percent) based on projected fee increases.

## Legal and Regulatory Budget Detail

The following table shows funding sources and related expenses for the Legal and Regulatory Program.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>LEGAL and REGULATORY</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserves	-	-	-	-	-
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 211,570	\$ 211,570	\$ -	\$ 334,870	\$ 123,300
Payroll Taxes	9,820	9,820	-	17,818	7,998
Benefits	13,773	13,773	-	33,311	19,538
Retirement Costs	39,202	39,202	-	60,417	21,215
<b>Total Personnel Expenses</b>	<b>\$ 274,365</b>	<b>\$ 274,365</b>	<b>\$ -</b>	<b>\$ 446,416</b>	<b>\$ 172,051</b>
<b>Meeting Expenses</b>					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	19,000	19,000	-	19,000	-
<b>Total Meeting Expenses</b>	<b>\$ 19,000</b>	<b>\$ 19,000</b>	<b>\$ -</b>	<b>\$ 19,000</b>	<b>\$ -</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	4,525	4,525	-	13,094	8,569
Professional Services	353,000	353,000	-	447,000	94,000
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 357,525</b>	<b>\$ 357,525</b>	<b>\$ -</b>	<b>\$ 460,094</b>	<b>\$ 102,569</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ (650,890)</b>	<b>\$ (650,890)</b>	<b>\$ -</b>	<b>\$ (925,510)</b>	<b>\$ (274,620)</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	0.86	0.86	-	2.07	1.21

**Table A-15. Legal and Regulatory Budget Detail**

## Information Technology

The following table lists the Information Technology budget.

Information Technology (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	3.97	4.44	0.47
Total Direct Expenses	\$ 1,495,582	\$ 1,784,365	\$ 288,783
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.

In addition to contributing to the ERO Enterprise Operating Plan Goal 6 as part of MRO's Administrative services, this program has specific areas of support related to ERO Enterprise vision of a highly reliable and secure North American bulk power system and efforts to communicate risks to reliability as outlined in the ERO Enterprise Operating Plan Goals 2 and 5.

### Goal 2: Strengthen Objective, Risk-Informed Entity Registration, Compliance Monitoring, Mitigation, and Enforcement:

*As part of the ERO Enterprise, MRO 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.*

#### Key MRO Objectives and Supporting Activities

1. Develop Compliance Oversight Plans (COPs) for MRO registered entities through a process that is aligned with the ERO and considers inherent risk, entity performance, and effectiveness of entity internal controls.
2. Decrease processing time for noncompliance.
3. Participate and provide input into the development and deployment of the ERO Enterprise Align project (formerly known as CMEP Tool Project) to align processes across the ERO Enterprise (2019-2020).
4. Support NERC as the current CEA for SPP RTO as well as the transition of the CEA responsibilities to MRO (2019-2020).

### Goal 5: Identify and Reduce 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 Cybersecurity Risk Information Sharing Program*

*(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.*

**Key MRO Objective and Supporting Activities**

1. Work with NERC, the MRO Security Advisory Council, and the Regional Entities to assess bulk power system security and identify potential or emerging cyber and physical security risks.
2. Improve regional coordination and information sharing regarding security threats by increasing engagement with E-ISAC and government agencies such as DHS, RCMP and FBI.
3. Actively participate in grid security exercises such as GridEx and in security programs, such as CRISP.
4. Continue to be responsive to state public utility requests for cyber security information.

**Information Technology Resource Requirements**

**Overall Budget Change 2019-2020 (Increase \$288.8K, 19.3%)**

The increase in the indirect programs is largely due to an increase in Consultants and Contracts, and Office Costs.

**Personnel Expenses (Increase \$195.8K, 37.6%)**

The average salary increase was budgeted at 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by the organizational leadership changes. There was also an FTE increase of 0.47.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Consultants and Contracts (Increase \$122.2K, 31.3%)**

This increase reflects increased reliance on external IT professional resources.

### 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 2019 Budget & Projection, and 2020 Budget					
INFORMATION TECHNOLOGY					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserves	-	-	-	-	-
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 359,608	\$ 359,608	\$ -	\$ 530,912	\$ 171,304
Payroll Taxes	28,021	28,021	-	37,021	9,000
Benefits	63,581	63,581	-	75,718	12,137
Retirement Costs	68,772	68,772	-	72,089	3,317
<b>Total Personnel Expenses</b>	<b>\$ 519,982</b>	<b>\$ 519,982</b>	<b>\$ -</b>	<b>\$ 715,740</b>	<b>\$ 195,758</b>
<b>Meeting Expenses</b>					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	10,000	10,000	-	10,000	-
<b>Total Meeting Expenses</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ -</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ 391,200	\$ 391,200	\$ -	\$ 513,475	\$ 122,275
Office Rent	-	-	-	-	-
Office Costs	329,400	329,400	-	335,150	5,750
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 720,600</b>	<b>\$ 720,600</b>	<b>\$ -</b>	<b>\$ 848,625</b>	<b>\$ 128,025</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>(1,250,582)</b>	<b>\$ (1,250,582)</b>	<b>\$ -</b>	<b>\$ (1,574,365)</b>	<b>\$ (323,783)</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Asset Additions, excluding Right of Use Assets</b>	<b>\$ 245,000</b>	<b>\$ 245,000</b>	<b>-</b>	<b>\$ 210,000</b>	<b>\$ (35,000)</b>
Allocation of Fixed Assets	(245,000)	(245,000)	-	(210,000)	35,000
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	3.97	3.97	-	4.44	0.47

**Table A-17. Information Technology Budget Detail**

## Human Resources

The following table lists the Human Resources budget.

Human Resources (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	-	1.35	1.35
Total Direct Expenses	\$ -	\$ 433,001	\$ 433,001
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 organizes the recruitment and retention efforts of the organization and coordinates onboarding, training, professional development, and best practice employee retention initiatives.

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 and team building. The program also facilitates MRO's enterprise-wide corporate compliance and ethics program. MRO reviewed and enhanced its employee engagement and culture enrichment activities in an effort to positively impact both the onboarding experience of new employees, as well as the overall corporate culture to be an "employer of choice," and therefore support attraction and retention of qualified staff.

#### Human Resources Resource Requirements

##### Overall Budget Change 2019-2020 (Increase \$433.0K, 100%)

The human resource function has been segregated from Finance and Accounting. This new function is a 100 percent increase from 2019.

##### Personnel Expense (Increase \$262K, 100%)

The increase in this areas results from moving the Human Resource function from Finance and Accounting to its own separate function. This increase is offset by a decrease in Finance and Accounting.

##### Operating Expense (Increase \$169.5K, 100%)

The increase in this areas results from moving the Human Resource function from Finance and Accounting to its own separate function. This increase is offset by a decrease in Finance and Accounting.

### 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					
2019 Budget & Projection, and 2020 Budget					
HUMAN RESOURCES					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserves				-	-
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ -	\$ -	\$ -	\$ 196,884	\$ 196,884
Payroll Taxes	-	-	-	12,483	12,483
Benefits	-	-	-	23,022	23,022
Retirement Costs	-	-	-	29,612	29,612
<b>Total Personnel Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 262,001</b>	<b>\$ 262,001</b>
<b>Meeting Expenses</b>					
Meetings	\$ -	\$ -	\$ -	-	-
Travel	-	-	-	1,500	1,500
<b>Total Meeting Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,500</b>	<b>\$ 1,500</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ 47,000	\$ 47,000
Office Rent	-	-	-	-	-
Office Costs	-	-	-	102,500	102,500
Professional Services	-	-	-	20,000	20,000
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 169,500</b>	<b>\$ 169,500</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (433,001)</b>	<b>\$ (433,001)</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ -</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	<b>-</b>	<b>-</b>		<b>1.35</b>	<b>1.35</b>

**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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	3.55	3.38	(0.17)
Total Direct Expenses	\$ 1,790,613	\$ 1,788,250	\$ (2,363)
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 coordinates all MRO internal and external meetings, workshops, and events. Office Rent expenses for MRO are budgeted and recorded in Finance and Accounting.

#### Finance and Accounting Resource Requirements

##### Overall Budget Change 2019-2020 (Decrease \$2.4K, 0.13%)

The overall costs in the Finance and Accounting area have been reduced by the separation of the Human Resource function into its own functional area.

##### Personnel Expenses (Increase \$61.7K, 10.2%)

The average salary increase was budgeted at 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by organizational leadership changes. There was also an FTE reduction of 0.17.

Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.

Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums. (Decrease 41.7 percent.)

**Meeting Expenses (Decrease \$6.0K, 33.3%)**

The decrease in this areas results from moving the Human Resource function from Finance and Accounting to its own separate function. This decrease is offset by an increase in the other functional area.

**Operating Expenses (Decrease \$83.1K, 7.1%)**

The decrease in this area results from moving the Human Resource function from Finance and Accounting to its own separate function. This decrease is offset by an increase in the other functional area.

## Finance and Accounting Budget Detail

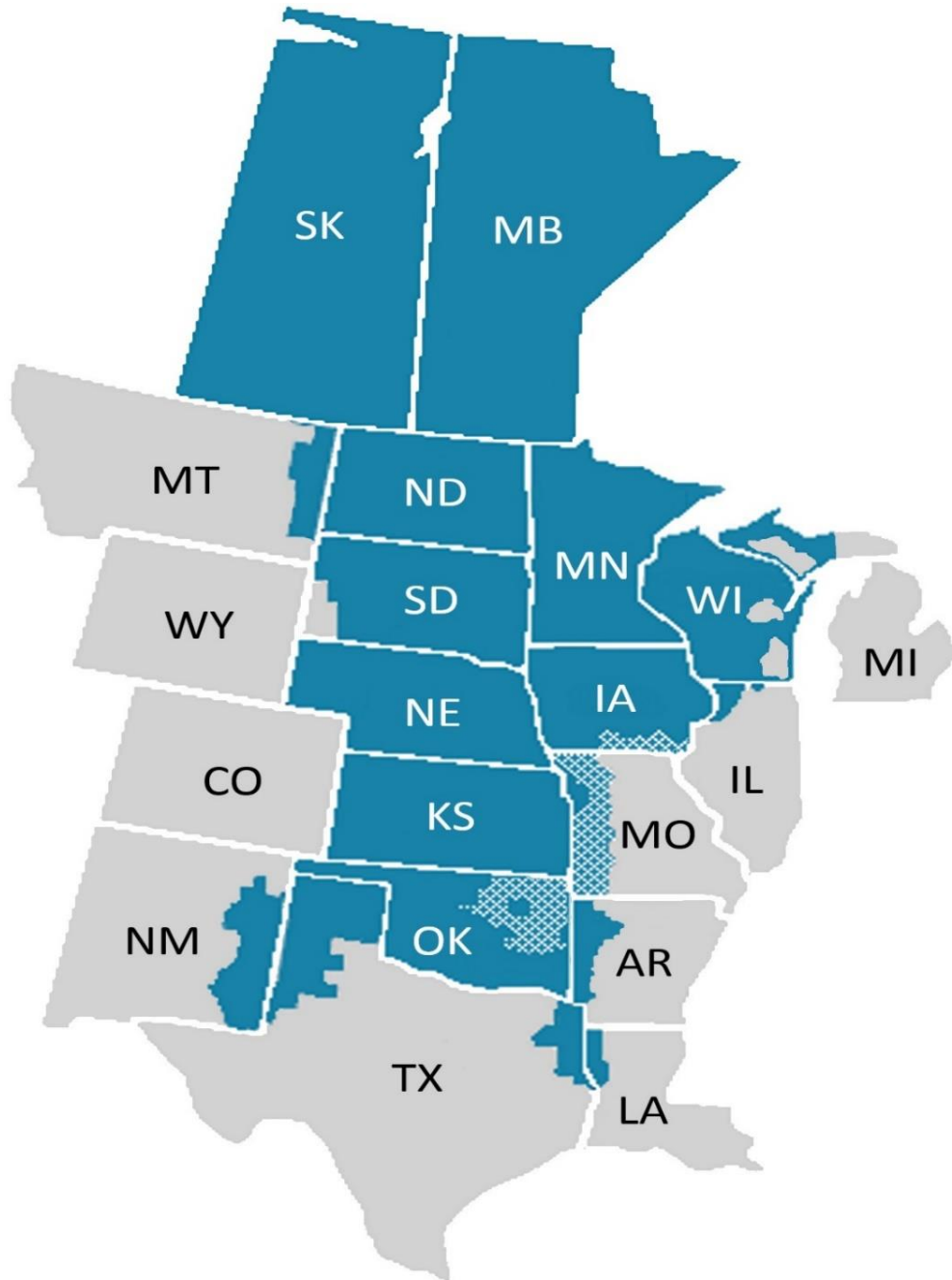
The following table shows funding sources and related expenses for the Finance and Accounting Program.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
FINANCE and ACCOUNTING					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection	Budget	2020 Budget
			v 2019 Budget		v 2019 Budget
			Over(Under)		Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Assessment Stabilization Reserves	-	-	-	-	-
Membership Dues	-	-	-	-	-
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 419,867	\$ 419,867	\$ -	\$ 488,350	\$ 68,483
Payroll Taxes	28,044	28,044	-	27,810	(234)
Benefits	56,854	56,854	-	57,982	1,128
Retirement Costs	97,688	97,688	-	90,008	(7,680)
<b>Total Personnel Expenses</b>	<b>\$ 602,453</b>	<b>\$ 602,453</b>	<b>\$ -</b>	<b>\$ 664,150</b>	<b>\$ 61,697</b>
<b>Meeting Expenses</b>					
Meetings	\$ 2,000	\$ 2,000	\$ -	\$ 2,000	\$ -
Travel	16,000	16,000	-	10,000	(6,000)
<b>Total Meeting Expenses</b>	<b>\$ 18,000</b>	<b>\$ 18,000</b>	<b>\$ -</b>	<b>\$ 12,000</b>	<b>\$ (6,000)</b>
<b>Operating Expenses</b>					
Consultants & Contracts	\$ 92,410	\$ 92,410	\$ -	\$ 49,050	\$ (43,360)
Office Rent	743,500	743,500	-	774,000	30,500
Office Costs	274,250	274,250	-	203,050	(71,200)
Professional Services	60,000	60,000	-	61,000	1,000
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 1,170,160</b>	<b>\$ 1,170,160</b>	<b>\$ -</b>	<b>\$ 1,087,100</b>	<b>\$ (83,060)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Indirect Expenses</b>	<b>\$ (1,790,613)</b>	<b>\$ (1,790,613)</b>	<b>\$ -</b>	<b>\$ (1,763,250)</b>	<b>\$ 27,363</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A - B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Asset Additions, excluding Right of Use Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>25,000</b>	<b>25,000</b>
Allocation of Fixed Assets	\$ -	\$ -	-	(25,000)	(25,000)
<b>Inc(Dec) in Fixed Assets ( C )</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	3.55	3.55	-	3.38	(0.17)

**Table A-21. Finance and Accounting Budget Detail**

# Section B – Supplemental Financial Information

## 2020 Business Plan and Budget



## Section B – Supplemental Financial Information

### Reserve Balance

Table B-1 analyzes the reserve for 2019 through 2020.

Reserve Analysis 2019-2020		
STATUTORY		
Beginning Working Capital (Deficit), December 31, 2018	4,730,716	
Plus: Penalty Sanctions Non-current <sup>1</sup>	712,417	Projected Annual Cashflow
Plus: 2019 MRO Assessment	15,471,669	
Less: 2019 Projected expenses & capital expenditures	(15,980,354)	Operation Expenses
<b>Projected Reserve (Deficit), December 31, 2019<sup>2</sup></b>	<b>4,934,448</b>	
Targeted 30 day Operating Reserve, December 31, 2020 (( $\$17,540,969 / 365$ days) X 30 days)	1,441,723	To cover contingencies
Less: Projected Reserve, December 31, 2019	(4,934,448)	
<b>Projected Reserve</b>	<b>(3,492,725)</b>	Projected Assessment Stabilization Reserves
2020 Expenses and Capital Expenditures	17,540,969	
<b>2020 MRO Assessment (9.8% Increase over 2019)</b>	<b>16,983,251</b>	
Adjustment from reserves to achieve targeted MRO Assessment	557,718	Assessment Stabilization Adjustment
<b>Projected Reserve (Deficit), December 31, 2020</b>	<b>2,935,007</b>	Assessment Stabilization Reserves

<sup>1</sup> Represents collections on or prior to June 30, 2019. See page 54 for full disclosure.

<sup>2</sup> MRO's projected reserve December 31, 2019 assumes that there will not be a material difference budgeted versus actual/projected results from 2019.

**Table B-1. Reserve Analysis 2019 - 2020**

### Explanation of Changes in Reserve Policy from Prior Years

In 2019, MRO received excess assessment dollars and penalties from the SPP RE transition that could be used to stabilize future MRO budget assessments. In the past, penalties have been a very small fraction of the surplus dollars used to reduce assessments, while MRO's working capital caused a more significant difference in assessments from year-to-year. MRO staff discussed assessment stabilization with NERC and other Regional Entities and the application of excess assessments to future years to stabilize the budget and assessments. MRO determined it must revise its current process to reset the targeted operating reserves and apply an assessment stabilization adjustment to the proposed budget year's assessments.

Pursuant to the NERC ROP Section 1107.4, MRO 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.*

MRO proposes to revise its reserve policy to include an assessment stabilization reserve.

The proposed revised Policy and Procedure 13 would determine the targeted operating reserve requirement based on the 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 revised policy would combine 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.

**Breakdown by Statement of Activity Sections**

Table B-2 lists all penalties, including date received and amount, received prior to June 30, 2018.

<b>Penalty Sanctions Received On or Prior to June 30, 2019</b>	<b>Date Received</b>	<b>Amount Received</b>
	Jul-18	\$ 144,000
	Jul-18	29,000
	Aug-18	10,000
	Oct-18	402,764
	Oct-18	31,371
	Feb-19	95,282

<b>Total Penalties Received</b>	<b>\$ 712,417</b>
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**Table B-2. Penalty Sanctions Received**

**Penalty Sanctions**

All penalties received after July 1, 2018, and prior to June 30, 2019, are listed above, including the amount and date received.

Pursuant to the NERC ROP Section 1107.4, MRO 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.*

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.

Table B-3 lists the budget for Supplemental Funding.

Outside Funding Breakdown By Program (Excluding Penalty Sanction)	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>				
Other	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Reliability Assessment and Performance Analysis</b>				
Other		-		
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Training and Education</b>				
Testing Fees and Certificate Renewals	\$ -	\$ -	\$ -	-
CEH Fees	-	-	-	-
Workshops	-	-	-	-
Other		-		
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Situation Awareness and Infrastructure Security</b>				
FIST Royalties	\$ -	\$ -	\$ -	\$ -
TSIN Fees				
Other		-		
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>General and Administrative</b>				
Interest Income	\$ -	\$ -	\$ -	\$ -
Other				
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Outside Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Table B-3. Supplemental Funding**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

MRO does not earn interest income. The general banking account offsets the bank charges with any earned interest.

Table B-4 summarizes Personnel Expenses.

Personnel Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Total Salaries	\$ 8,386,511	\$ 8,386,511	\$ 9,334,262	\$ 947,751	11.3%
Total Payroll Taxes	539,356	539,356	586,604	47,248	8.8%
Total Benefits	928,884	928,884	1,061,581	132,697	14.3%
Total Retirement	1,714,916	1,714,916	1,500,244	(214,672)	-12.5%
<b>Total Personnel Costs</b>	<b>\$ 11,569,667</b>	<b>\$ 11,569,667</b>	<b>\$ 12,482,691</b>	<b>\$ 913,024</b>	<b>7.9%</b>
FTEs	59.00	59.00	63.00	4.00	6.8%
Cost per FTE					
Salaries	\$ 142,144	\$ 142,144	\$ 148,163	6,019	4.2%
Payroll Taxes	9,142	9,142	9,311	170	1.9%
Benefits	15,744	15,744	16,850	1,107	7.0%
Retirement	29,066	29,066	23,813	(5,253)	-18.1%
<b>Total Cost per FTE</b>	<b>\$ 196,096</b>	<b>\$ 196,096</b>	<b>\$ 198,138</b>	<b>\$ 2,042</b>	<b>1.0%</b>

**Table B-4. Personnel Expenses**

#### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

##### Personnel Expenses (Increase \$913K, 7.9%)

The following assumptions were used to determine the 2020 MRO budget:

- Total personnel expenses were increased to include the addition of 4 FTEs to support the expanded region.
- The average salary increase is 3 percent. However, MRO aligned some salaries and the incentive program to compete with market. Salaries were further impacted by organizational leadership changes.
- Benefits were based on actual 2019 medical and dental program premium rates, increased by 6 percent.
- Saving and retirement costs decreased from the 2019 budgeted amounts, reflecting the 2018 end-of-year actuarial assessment of MRO's Retiree Medical Plan. The 2018 adjustment was due to a significant decrease in the cost of healthcare, specifically Medicare supplemental premiums.



Table B-5 lists the budget for Meeting Expenses.

Meeting Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Meeting Expenses	\$ 145,850	\$ 145,850	\$ 175,900	\$ 30,050	20.6%
Travel	905,314	\$ 905,314	1,108,732	203,418	22.5%
<b>Total Meeting Expenses</b>	<b>\$ 1,051,164</b>	<b>\$ 1,051,164</b>	<b>\$ 1,284,632</b>	<b>\$ 233,468</b>	<b>22.2%</b>

**Table B-5. Meeting Expenses**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

#### Meeting Expenses (Increase \$30K, 20.6%)

Budgeted meeting expenses increased to include additional meetings and outreach efforts for the expanded region. MRO's organizational group structure was reorganized to include advisory councils that sponsor outreach and engagement efforts that support mitigation and outreach strategies for addressing identified risks.

#### Travel Expenses (Increase \$203.4K, 22.5%)

There is an overall travel expense increase for both staff travel and member reimbursement reflective of the additional working group trips and the additional council face-to-face meetings. There are also travel dollars for the Align project and training of staff.

Table B-6 lists the budget for Consultants and Contracts.

Consultants	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
<b>Consultants</b>					
Reliability Standards and Organization Registration and Certification Compliance	\$ -	\$ -	\$ -	\$ -	
Reliability Assessment and Performance Analysis (Alert) Event Analysis	403,000	403,000	403,000	-	0%
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security Committee and Member Forums	-	-	-	-	
General and Administrative	32,000	32,000	32,000	-	0%
Legal and Regulatory	-	-	-	-	
Information Technology	191,000	191,000	286,200	95,200	50%
Human Resources	-	-	-	-	
Accounting and Finance	22,000	22,000	15,000	(7,000)	-32%
<b>Consultants Total</b>	<b>\$ 648,000</b>	<b>\$ 648,000</b>	<b>\$ 736,200</b>	<b>\$ 88,200</b>	<b>14%</b>
<b>Contracts</b>					
<b>Contracts</b>					
Reliability Standards and Organization Registration and Certification Compliance	\$ -	\$ -	\$ -	\$ -	
Reliability Assessment and Performance Analysis	100,000	100,000	180,394	80,394	80%
Event Analysis	81,400	81,400	81,400	-	0%
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security Committee and Member Forums	-	-	-	-	
General and Administrative	-	-	-	-	
Legal and Regulatory	-	-	-	-	
Information Technology	200,200	200,200	227,275	27,075	14%
Human Resources	-	-	47,000	47,000	100%
Accounting and Finance	70,410	70,410	34,050	(36,360)	-52%
<b>Contracts Total</b>	<b>\$ 452,010</b>	<b>\$ 452,010</b>	<b>\$ 570,119</b>	<b>\$ 118,109</b>	<b>26%</b>

**Table B-6. Consultants and Contracts**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

#### Contracts for Compliance Monitoring (Increase \$80K, 80%)

The \$80k increase is for expanded use of webCDMS based on a greater number of entities in the MRO Region.

#### IT Consultants and Contracts (Increase \$122K, 31.2%)

Consultants & Contracts consist of the management and maintenance of the MRO communication network. Greater use of the network requires continued maintenance for optimal performance of MRO's IT network and utilizes both internal staff and external technical support.

#### Human Resource Contracts (Increase \$47K, 100%)

The increase in HR contracts results from moving the Human Resource function from Finance and Accounting to its own separate function. This increase is offset by a decrease in Finance and Accounting. HR maintains the need for outside resources to support an expanded workforce. MRO also anticipates continued use of external consulting for staff recruitment and compensation and benefit studies.

#### Accounting and Finance Consultants and Contracts (Decrease \$43.4K, 46.9%)

The decrease in Accounting and Finance results from moving the Human Resource function from Finance and Accounting to its own separate function. This decrease is offset by an increase in HR.

Table B-7 lists the budget for Office Rent.

Office Rent	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Office Rent	\$ 724,000	\$ 724,000	\$ 750,000	\$ 26,000	3.6%
Utilities	7,500	7,500	9,000	1,500	20.0%
Maintenance	12,000	12,000	15,000	3,000	25.0%
<b>Total Office Rent</b>	<b>\$ 743,500</b>	<b>\$ 743,500</b>	<b>\$ 774,000</b>	<b>\$ 30,500</b>	<b>4.10%</b>

**Table B-7. Office Rent**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

There are no significant variances.

Table B-8 lists the budget for Office Costs.

Office Costs	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Phone Service					
Data Circuit (qmoe)	\$ 60,000	\$ 60,000	\$ 60,000	\$ -	0.00%
Webex	11,000	11,000	19,200	8,200	74.55%
Voice Circuits	18,000	18,000	18,000	-	0.00%
Business Cable	2,500	2,500	3,250	750	30.00%
Disaster Recovery Site	19,000	19,000	-	(19,000)	-100.00%
Internet/Cell	56,288	56,288	62,532	6,244	11.09%
Office Supplies	50,000	50,000	50,000	-	0.00%
Employee Member Events	36,000	36,000	38,000	2,000	5.56%
Employee Related Expense (Drug Testing, Finder Fees Etc)	35,000	35,000	35,000	-	0.00%
Computer Supplies and Maintenance	163,500	163,500	166,500	3,000	1.83%
Publications & Subscriptions	6,675	6,675	10,500	3,825	57.30%
Professional Dues	18,800	18,800	22,095	3,295	17.53%
Postage	6,200	6,200	6,200	-	0.00%
Temporary Services	-	-	-	-	
Finance-Filing/Reg Fees	6,000	6,000	6,000	-	0.00%
Equipment Repair/Service Contracts	27,700	27,700	38,000	10,300	37.18%
Bank Charges	27,000	27,000	15,000	(12,000)	-44.44%
Presentation & Publicity & Supplies Promotional	15,000	15,000	15,000	-	0.00%
Departmental Functional Training	209,350	209,350	275,050	65,700	31.38%
Insurance Expense	90,000	90,000	90,000	-	0.00%
<b>Total Office Costs</b>	<b>\$ 858,013</b>	<b>\$ 858,013</b>	<b>\$ 930,327</b>	<b>\$ 72,314</b>	<b>8.43%</b>

**Table B-8. Office Costs**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget (Increase \$72K, 8.4%)**

Office costs have increased largely due to the addition of FTEs. Savings in bank charges and costs for the Disaster Recovery Site will partially offset the increase in departmental training.

Insurance expenses are anticipated to remain flat. A thorough evaluation of insurance coverages was conducted in 2019. It is expected that these costs will remain consistent with prior years' coverage.

Table B-9 lists the budget for Professional Services.

Professional Services	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Independent Trustee Fees	\$ 276,000	\$ 276,000	\$ 320,000	\$ 44,000	15.94%
Independent Trustee Travel Reimbursement	27,000	27,000	27,000	-	0.00%
Outside Legal	50,000	137,500	120,000	70,000	140.00%
Accounting and Auditing Fees	32,500	32,500	33,000	500	1.54%
Actuarial Fees	27,500	27,500	28,000	500	1.82%
<b>Total Services</b>	<b>\$ 413,000</b>	<b>\$ 500,500</b>	<b>\$ 528,000</b>	<b>\$ 115,000</b>	<b>27.85%</b>

**Table B-9. Professional Services**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

#### Professional Services (Increase \$115K, 27.8%)

In 2020, professional services increase to accommodate Independent Director compensation changes and additional legal services.

Table B-10 lists the budget for Miscellaneous.

Miscellaneous Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
	\$ -	\$ -	\$ -	\$ -	-
					-
					-
<b>Total Miscellaneous Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00%</b>

**Table B-10. Miscellaneous**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

MRO has not budgeted any Miscellaneous Expenses in 2019 or 2020.

Table B-11 lists the budget for other Non-Operating Expenses.

Other Non-Operating Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	
Line of Credit Payment		-		-	
Office Relocation	-	-	-	-	
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.00%</b>

**Table B-11. Other Non-Operating Expenses**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

MRO has not budgeted any Non-Operating Expenses in 2019 or 2020.

Table B-12 lists the budget for Fixed Assets.

Fixed Assets	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Computer Equipment	245,000	245,000	210,000	(35,000)	-14.3%
Capitalized Software	-	-	-	-	
Furniture and Equipment	-	-	-	-	
Leasehold Improvements	-	-	25,000	25,000	
<b>Total Change in Fixed Assets</b>	<b>\$ 245,000</b>	<b>\$ 245,000</b>	<b>\$ 235,000</b>	<b>\$ (10,000)</b>	<b>-4.1%</b>

Table B-12. Fixed Assets

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

There are no significant variances.



Table B-13 compares the 2020 budget with projections for 2021-2022.

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2021 and 2022 Projections								
	2020 Budget	2021 Projection	\$ Change 20 v 21	% Change 20 v 21	2022 Projection	\$ Change 21 v 22	% Change 21 v 22	
<b>Funding</b>								
<b>ERO Funding</b>								
NERC Assessments	\$ 16,983,251	\$ 17,492,749	\$ 509,498	3.00%	\$ 18,017,531	\$ 524,782	3.00%	
Assessment Stabilization Reserves	557,718	574,450	16,732	3.00%	591,683	17,233	3.00%	
Membership Dues	-	-	-	-	-	-	-	
Testing Fees	-	-	-	-	-	-	-	
Services & Software	-	-	-	-	-	-	-	
Workshop Fees & Miscellaneous	-	-	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 17,540,969</b>	<b>\$ 18,067,198</b>	<b>\$ 526,229</b>	<b>3.0%</b>	<b>\$ 18,609,214</b>	<b>\$ 542,016</b>	<b>3.0%</b>	
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 9,334,262	\$ 9,614,290	\$ 280,028	3.0%	\$ 9,902,719	\$ 288,429	3.0%	
Payroll Taxes	586,604	604,202	17,598	3.0%	622,328	18,126	3.0%	
Benefits	1,061,581	1,093,428	31,847	3.0%	1,126,231	32,803	3.0%	
Retirement Costs	1,500,244	1,545,251	45,007	3.0%	1,591,609	46,358	3.0%	
<b>Total Personnel Expenses</b>	<b>\$ 12,482,691</b>	<b>\$ 12,857,172</b>	<b>\$ 374,481</b>	<b>3.0%</b>	<b>\$ 13,242,887</b>	<b>\$ 385,715</b>	<b>3.0%</b>	
<b>Meeting Expenses</b>								
Meetings & Conference Calls	\$ 175,900	\$ 181,177	\$ 5,277	3.0%	\$ 186,612	\$ 5,435	3.0%	
Travel	1,108,732	1,141,994	33,262	3.0%	1,176,254	34,260	3.0%	
<b>Total Meeting Expenses</b>	<b>\$ 1,284,632</b>	<b>\$ 1,323,171</b>	<b>\$ 38,539</b>	<b>3.0%</b>	<b>\$ 1,362,866</b>	<b>\$ 39,695</b>	<b>3.0%</b>	
<b>Operating Expenses, excluding Depreciation</b>								
Consultants & Contracts	\$ 1,306,319	\$ 1,345,509	39,190	3.0%	\$ 1,385,874	40,365	3.0%	
Office Rent	774,000	797,220	23,220	3.0%	821,137	23,917	3.0%	
Office Costs	930,327	958,237	27,910	3.0%	986,984	28,747	3.0%	
Professional Services	528,000	543,840	15,840	3.0%	560,155	16,315	3.0%	
Miscellaneous	-	-	-	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 3,538,646</b>	<b>\$ 3,644,805</b>	<b>\$ 106,159</b>	<b>3.0%</b>	<b>\$ 3,754,150</b>	<b>\$ 109,344</b>	<b>3.0%</b>	
<b>Other Non-Operating Expenses</b>	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	
<b>Indirect Expenses</b>	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	
<b>Total Expenses (B)</b>	<b>\$ 17,305,969</b>	<b>\$ 17,825,148</b>	<b>\$ 519,179</b>	<b>3.0%</b>	<b>\$ 18,359,903</b>	<b>\$ 534,754</b>	<b>3.0%</b>	
<b>Change in Net Assets (=A - B)</b>	<b>\$ 235,000</b>	<b>\$ 242,050</b>	<b>\$ 7,050</b>	<b>3.0%</b>	<b>\$ 249,312</b>	<b>\$ 7,261</b>	<b>3.0%</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 235,000</b>	<b>\$ 242,050</b>	<b>\$ 7,050</b>	<b>3.0%</b>	<b>\$ 249,312</b>	<b>\$ 7,262</b>	<b>3.0%</b>	
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions =B + C)</b>	<b>\$ 17,540,969</b>	<b>\$ 18,067,198</b>	<b>\$ 526,229</b>	<b>3.0%</b>	<b>\$ 18,609,214</b>	<b>\$ 542,016</b>	<b>3.0%</b>	
<b>TOTAL CHANGE IN RESERVES (=A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	
<b>FTEs</b>	<b>63.00</b>	<b>63.00</b>	<b>-</b>	<b>-</b>	<b>63.00</b>	<b>-</b>	<b>-</b>	

Table B-13. Budget 2020 Compared with 2021-2022 Projections

Explanation of 2020, 2021, 2022 Projections

At this time, MRO does not anticipate significant changes in program areas for the next three years.

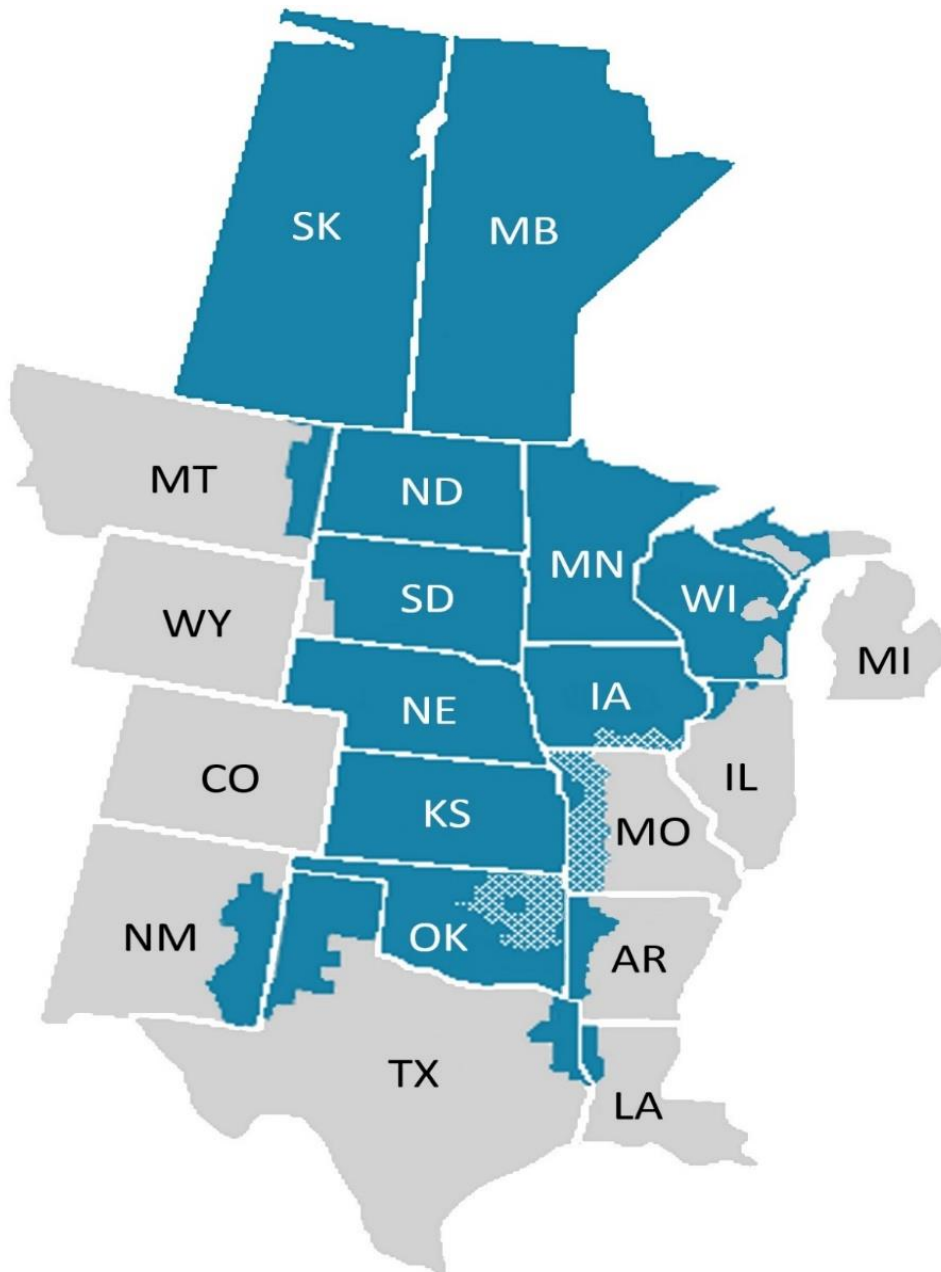
- FTEs remain flat
- Three percent escalation rate applied to expense categories
- Total budget increase of \$526K in 2021
- Total budget increase of \$542K in 2022
- Zero penalties budgeted

# Section C – Non-Statutory Activities

## 2020 Business Plan and Budget

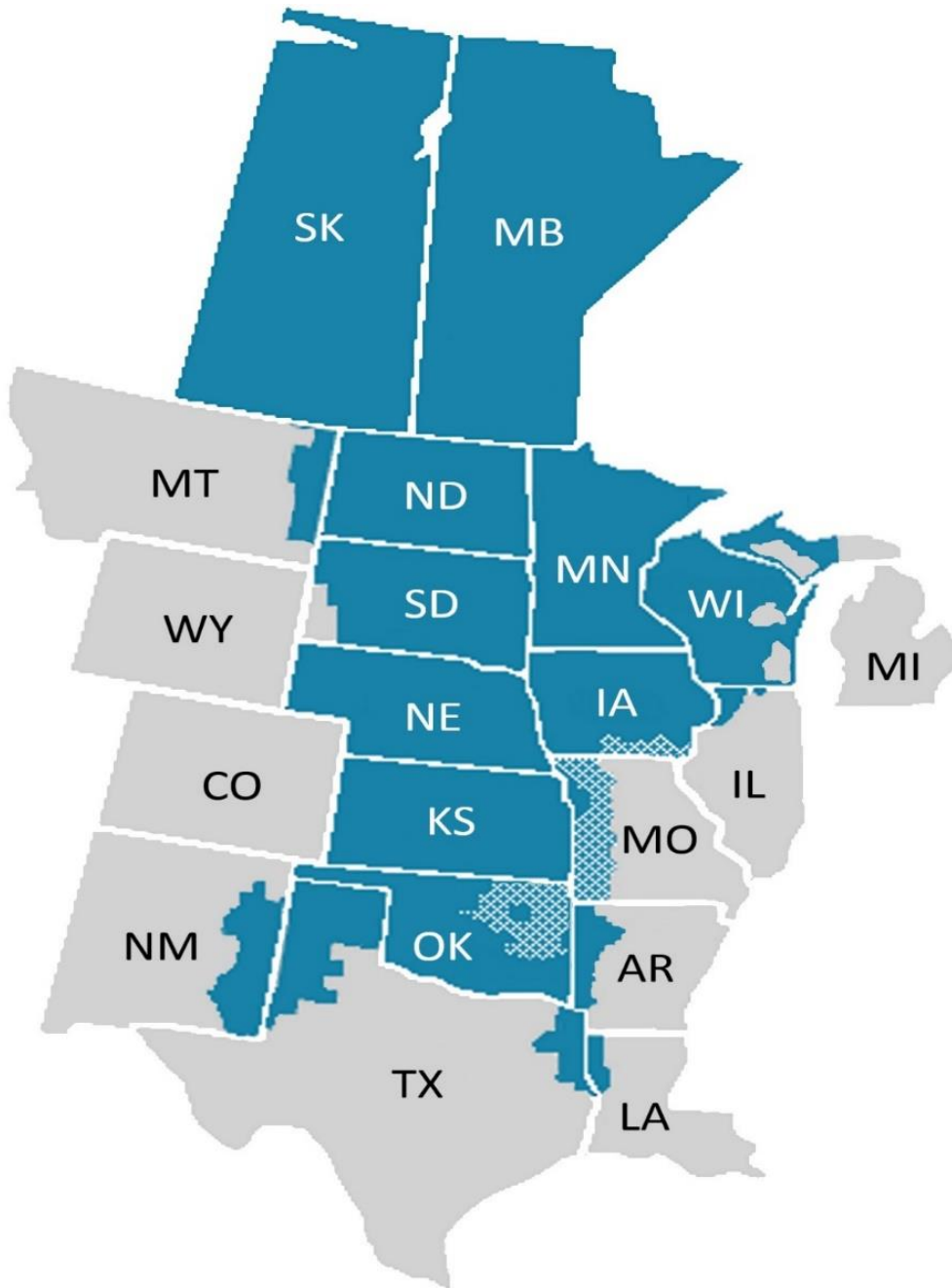
### Section C – Non-Statutory Activities

2020 Non-Statutory Business Plan and Budget  
MRO has no non-statutory activities.



# Section D – Additional Consolidated Financial Statements

## 2020 Business Plan and Budget



## Section D – Additional Consolidated Financial Statements

### 2020 Consolidated Statement of Activities by Program, Statutory and Non-Statutory

Statement of Activities and Capital Expenditures by Program 2020 Business Plan and Budget	Total	Statutory Total	Non-Statutory Total	Functions in Delegation Agreement																
				Statutory Total	Reliability Standards and Organization Registration and Certification (Section 300 & 500)	Compliance (Section 400)	Reliability Assessment and Performance Analysis (Section 800)	Training and Education (Section 6008900)	Situation Awareness and Infrastructure Security (Section 1000)	Committee and Member Forums	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance					
<b>Funding</b>																				
ERO Funding																				
NERC Assessments	16,983,251	16,983,251	-	16,983,251	712,541	11,466,158	3,018,309	1,072,457	713,786											
Assessment Stabilization Adjustment	557,718	557,718	-	557,718	23,607	381,686	95,109	33,708	23,607											
Membership Dues	-	-	-	-	-	-	-	-	-											
Testing Fees	-	-	-	-	-	-	-	-	-											
Services & Software	-	-	-	-	-	-	-	-	-											
Workshops & Miscellaneous Revenue	-	-	-	-	-	-	-	-	-											
Interest & Investment Income	-	-	-	-	-	-	-	-	-											
<b>Total Funding (A)</b>	<b>17,540,969</b>	<b>17,540,969</b>	<b>-</b>	<b>17,540,969</b>	<b>736,148</b>	<b>11,847,844</b>	<b>3,113,418</b>	<b>1,106,166</b>	<b>737,393</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Expenses</b>																				
<b>Personnel Expenses</b>																				
Salaries	9,334,262	9,334,262	-	9,334,262	306,795	4,934,233	1,272,880	453,752	283,299		532,287	334,870	530,912	196,884	488,350					
Payroll Taxes	586,604	586,604	-	586,604	18,021	329,276	82,405	22,296	17,712		21,762	17,818	37,021	12,483	27,810					
Benefits	1,061,581	1,061,581	-	1,061,581	35,471	574,079	140,066	42,122	35,471		44,339	33,311	75,718	23,022	57,982					
Retirement Costs	1,500,244	1,500,244	-	1,500,244	59,260	779,300	214,605	69,351	42,759		82,843	60,417	72,089	29,612	90,008					
<b>Total Personnel Expenses</b>	<b>12,482,691</b>	<b>12,482,691</b>	<b>-</b>	<b>12,482,691</b>	<b>419,547</b>	<b>6,616,888</b>	<b>1,709,956</b>	<b>587,521</b>	<b>379,241</b>	<b>-</b>	<b>681,231</b>	<b>446,416</b>	<b>715,740</b>	<b>262,001</b>	<b>664,150</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Meeting Expenses</b>																				
Meetings	175,900	175,900	-	175,900	1,400	9,500	11,000	90,000	2,000		60,000	-	-	-	2,000					
Travel	1,108,732	1,108,732	-	1,108,732	57,166	401,366	267,000	69,600	90,400		182,700	19,000	10,000	1,500	10,000					
<b>Total Meeting Expenses</b>	<b>1,284,632</b>	<b>1,284,632</b>	<b>-</b>	<b>1,284,632</b>	<b>58,566</b>	<b>410,866</b>	<b>278,000</b>	<b>159,600</b>	<b>92,400</b>	<b>-</b>	<b>242,700</b>	<b>19,000</b>	<b>10,000</b>	<b>1,500</b>	<b>12,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Operating Expenses</b>																				
Consultants & Contracts	1,306,319	1,306,319	-	1,306,319	-	583,394	81,400	-	-		32,000	-	513,475	47,000	49,050					
Office Rent	774,000	774,000	-	774,000	-	-	-	-	-		-	-	-	-	774,000					
Office Costs	930,327	930,327	-	930,327	6,583	171,150	31,000	-	14,300		53,500	13,094	335,150	102,500	203,050					
Professional Services	528,000	528,000	-	528,000	-	-	-	-	-		-	-	447,000	20,000	61,000					
Miscellaneous	-	-	-	-	-	-	-	-	-		-	-	-	-	-					
<b>Total Operating Expenses</b>	<b>3,538,646</b>	<b>3,538,646</b>	<b>-</b>	<b>3,538,646</b>	<b>6,583</b>	<b>754,544</b>	<b>112,400</b>	<b>-</b>	<b>14,300</b>	<b>-</b>	<b>85,500</b>	<b>460,094</b>	<b>848,625</b>	<b>169,500</b>	<b>1,087,100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Direct Expenses</b>	<b>17,305,969</b>	<b>17,305,969</b>	<b>-</b>	<b>17,305,969</b>	<b>484,696</b>	<b>7,782,298</b>	<b>2,100,356</b>	<b>747,121</b>	<b>485,941</b>	<b>-</b>	<b>1,009,431</b>	<b>925,510</b>	<b>1,574,365</b>	<b>433,001</b>	<b>1,763,250</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Indirect Expenses</b>																				
	-	-	-	-	241,505	3,904,719	972,987	344,841	241,505	-	(1,009,431)	(925,510)	(1,574,365)	(433,001)	(1,763,250)					
<b>Other Non-Operating Expenses</b>																				
	-	-	-	-	-	-	-	-	-		-	-	-	-	-					
<b>Total Expenses (B)</b>	<b>17,305,969</b>	<b>17,305,969</b>	<b>-</b>	<b>17,305,969</b>	<b>726,201</b>	<b>11,687,017</b>	<b>3,073,343</b>	<b>1,091,962</b>	<b>727,446</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Change in Net Assets</b>	<b>235,000</b>	<b>235,000</b>	<b>-</b>	<b>235,000</b>	<b>9,947</b>	<b>160,827</b>	<b>40,075</b>	<b>14,203</b>	<b>9,947</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Fixed Assets</b>																				
Computer & Software CapEx	210,000	210,000	-	210,000	-	-	-	-	-		-	210,000	-	-	-					
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-		-	-	-	-	-					
Equipment CapEx	-	-	-	-	-	-	-	-	-		-	-	-	-	-					
Leasehold Improvements	25,000	25,000	-	25,000	-	-	-	-	-		-	-	-	-	25,000					
Allocation of Fixed Assets	0	0	-	0	9,947	160,827	40,075	14,203	9,947		-	-	(210,000)	-	(25,000)					
<b>Ind(Dec) In Fixed Assets ( C )</b>	<b>235,000</b>	<b>235,000</b>	<b>-</b>	<b>235,000</b>	<b>9,947</b>	<b>160,827</b>	<b>40,075</b>	<b>14,203</b>	<b>9,947</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL BUDGET (Total Expenses plus Fixed Asset Additions +B + C)</b>	<b>17,540,969</b>	<b>17,540,969</b>	<b>-</b>	<b>17,540,969</b>	<b>736,148</b>	<b>11,847,844</b>	<b>3,113,418</b>	<b>1,106,166</b>	<b>737,393</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (+A-B-C)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(0)</b>	<b>(0)</b>	<b>(0)</b>	<b>-</b>	<b>-</b>	<b>(0)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>FTEs</b>	<b>63.00</b>	<b>63.00</b>	<b>-</b>	<b>63.00</b>	<b>2.08</b>	<b>33.63</b>	<b>8.38</b>	<b>2.97</b>	<b>2.08</b>	<b>-</b>	<b>2.62</b>	<b>2.07</b>	<b>4.44</b>	<b>1.35</b>	<b>3.38</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Indirect Costs Allocation</b>																				
Allocation of Fixed Assets	-	-	-	-	241,505	3,904,719	972,987	344,841	241,505		(1,009,431)	(925,510)	(1,574,365)	(433,001)	(1,763,250)					
Reserves Allocation	-	-	-	-	557,718	23,607	381,686	95,109	33,708		-	-	210,000	-	25,000					
Interest Income Allocation	-	-	-	-	-	-	-	-	-		-	-	-	-	-					
<b>Other Non-Operating Expenses</b>																				

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, 2018, per audit
- As of December 31, 2019, projected
- As of December 31, 2020, as budgeted

Statement of Financial Position 2018 Audited, 2019 Projection, and 2020 Budget			
STATUTORY			
	(Per Audit) 31-Dec-18	Projected 31-Dec-19	Budget 31-Dec-20
<b>ASSETS</b>			
Cash	6,557,354	6,286,349	6,941,251
Restricted Cash	60,754	-	-
Other Receivables	-	-	-
Prepaid expenses and other current assets	167,671	170,000	180,000
Security deposit	39,858	39,858	39,858
Restricted Cash - non-current	619,359	-	-
Property and equipment and capitalized software	1,535,134	1,154,134	811,134
Total Assets	<b>8,980,130</b>	<b>7,650,341</b>	<b>7,972,243</b>
<b>LIABILITIES AND NET ASSETS</b>			
Liabilities			
Accounts payable and accrued expenses	2,055,063	1,500,000	1,100,000
Postretirement medical benefit obligation	463,404	555,196	705,196
Deferred assessments - non-current	619,359	-	-
Deferred rent - non-current	544,488	501,761	446,917
Total Liabilities	<b>3,682,314</b>	<b>2,556,957</b>	<b>2,252,113</b>
Net Assets - unrestricted	5,297,816	5,093,384	5,720,130
Total Liabilities and Net Assets	<b>8,980,130</b>	<b>7,650,341</b>	<b>7,972,243</b>

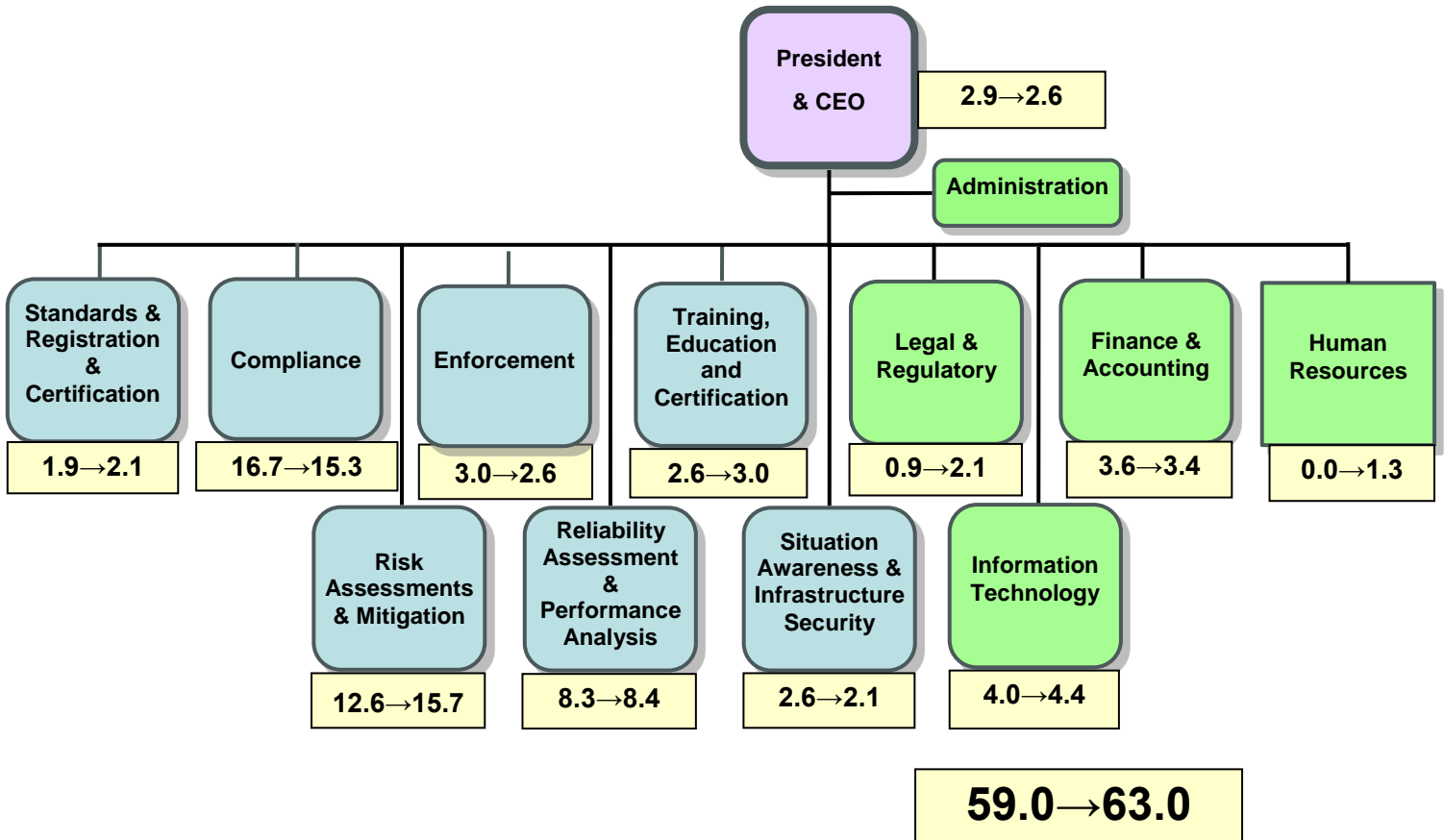
**Table D-2. Statement of Financial Position, Three-Year Comparison**

## Appendix A

### Organization Chart

The MRO Organization Chart is shown below.

#### 2019 to 2020 Full Time Equivalent (FTE) Comparison Organization Chart



#### FTE Trend from 2017 to 2021

2017	2018	2019	2020 Estimate	2021 Estimate
43.0	45.0	59.0	63.0	63.0

Figure 2. Organization Chart

## Appendix B

### Acronyms

This section lists acronyms used in this document.

Acronym	Definition
BA	Balancing Authority
BES	Bulk Electric System
BPS	Bulk Power System
CAISS	Cyber Automated Information System Specialist
CHIRP	Cyber Hygiene and Internet Risk Program
CEA	Compliance Enforcement Authority
CIP	Critical Infrastructure Protection
CMEP	Compliance Monitoring and Enforcement Program
CMEPAC	Compliance Monitoring and Enforcement Program Advisory Council
COP	Compliance Oversight Plan
C-QA	CMEP Quality Assurance Program
CRISP	Cybersecurity Risk Information Sharing Program
DADS	Demand Response Availability Data System
DER	Distributed Energy Resources
DHS	Department of Homeland Security
EEA	Energy Emergency Alert
E-ISAC	Electricity Information Sharing and Analysis Center
EMS	Energy Management System
ERAG	Eastern Interconnection Reliability Assessment Group
ERCOT	Electric Reliability Council of Texas
ERO	Electric Reliability Organization
FAC	Finance and Audit Committee
FBI	Federal Bureau of Investigation
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

IEP	Industry Engagement Program
IRA	Inherent Risk Assessment
IT	Information Technology
MIDAS	Misoperation Information Data Analysis System
MRC	Member Representatives Committee
MRO	Midwest Reliability Organization
NEL	Net-Energy-for-Load
NERC	North American Electric Reliability Corporation
NSRF	NERC Standards Review Forum
OEA	Open Enforcement Action
OGOC	Organizational Group Oversight Committee
RAC	Reliability Advisory Council
RAM	Risk Assessment and Mitigation
RAPA	Reliability Assessment and Performance Analysis
RASA	Risk Assessment and System Analysis
RCMP	Royal Canadian Mounted Police
RE	Regional Entity
REMG	Regional Entity Management Group
RISC	Reliability Issues Steering Committee
RRA	Regional Risk Assessment
SAC	Security Advisory Council
SAFNR	Situational Awareness for FERC, NERC, and the Regional Entities
SAG	Standard Application Guide
SAR	Standard Authorization Request
SER	Standards Efficiency Review
SPP RE	Southwest Power Pool Regional Entity
TADS	Transmission Availability Data System
TOP	Transmission Operator



## Appendix C

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**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 4**

**NORTHEAST POWER COORDINATING COUNCIL, INC.**

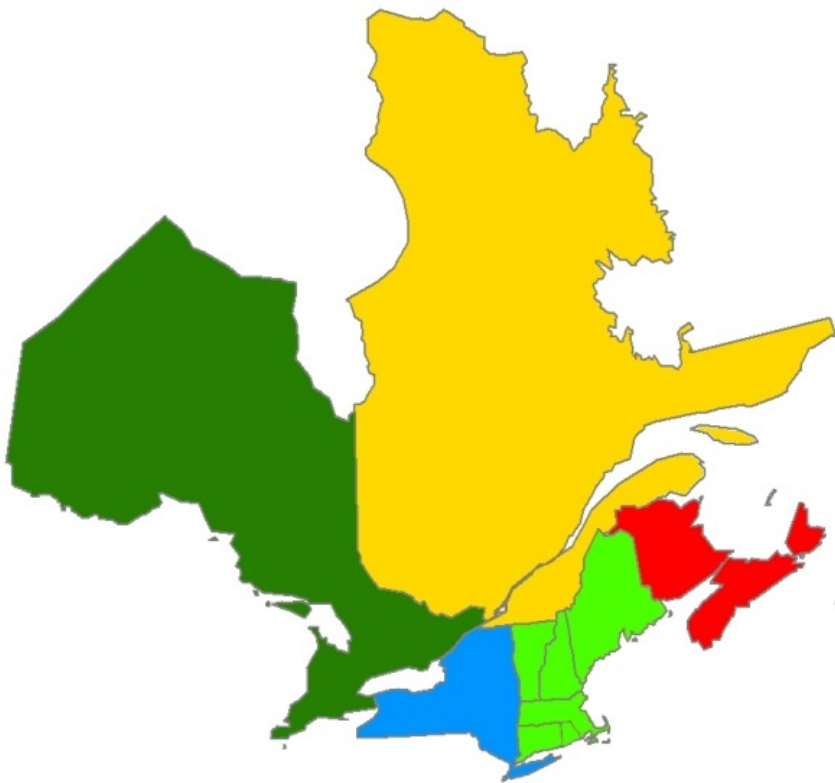
**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



NORTHEAST POWER COORDINATING COUNCIL, INC.  
1040 AVE. OF THE AMERICAS, NEW YORK, NY 10018 (212) 840-1070 FAX (212) 302-2782

## **Northeast Power Coordinating Council, Inc. (NPCC)**

### **2020 Business Plan and Budget**



**Approved by the  
NPCC Board of Directors  
at its June 26, 2019 Meeting and  
Submitted to NERC June 26, 2019**

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## Introduction

<b>Total NPCC Resources</b>				
(in whole dollars)				
	2020 Budget	U.S.	Canada	Mexico
Regional Entity Division FTEs	41.09			
Criteria Services Division FTEs	2.16			
<b>Total FTEs</b>	<b>43.25</b>			
Regional Entity Division Expenses	\$16,431,647			
Criteria Services Division Expenses	\$1,118,668			
<b>Total Expenses</b>	<b>\$17,550,315</b>			
Regional Entity Division Inc(Dec) in Fixed Assets	<b>\$170,000</b>			
Criteria Services Division Inc(Dec) in Fixed Assets	<b>\$30,000</b>			
<b>Total Inc(Dec) in Fixed Assets</b>	<b>\$200,000</b>			
Regional Entity Division Working Capital Requirement**	<b>(\$1,019,611)</b>			
Criteria Services Division Working Capital Requirement***	<b>(\$79,265)</b>			
<b>Total Working Capital Requirement</b>	<b>(\$1,098,876)</b>			
Total Regional Entity Division Funding Requirement	\$15,582,037			
Total Criteria Services Division Funding Requirement	\$1,069,402			
<b>Total Funding Requirement</b>	<b>\$16,651,439</b>			
<b>Regional Entity Division Assessments</b>	<b>\$15,338,737</b>	<b>\$9,575,689</b>	<b>\$5,763,048</b>	
<b>Regional Entity Division Assessments Percentage</b>	<b>100%</b>	<b>62%</b>	<b>38%</b>	
<b>Criteria Services Division Membership Fees</b>	<b>\$1,065,202</b>	<b>\$488,693</b>	<b>\$576,509</b>	
<b>Total NPCC Assessments &amp; Membership Fees</b>	<b>\$16,403,939</b>	<b>\$10,064,382</b>	<b>\$6,339,557</b>	
NEL	620,311,000	284,586,000	335,725,000	
NEL %	100%	46%	54%	

\*\* Refer to Table B-1 on page 58 in Section B.

\*\*\* Refer to the Reserve Analysis on page 75 in Section C.

## 2020 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 to increase its total operating budget and assessments by 2.1% comprising a Regional Entity increase of 2.2% and a Criteria Services division increase of 0.6%. Additional 2020 succession implementation costs will be funded through existing Business Continuity Reserves, having no impact on assessments, and are excluded from the operating budget increase calculation. The proposed 2020 funding requirements will be satisfied by a Regional Entity division assessment of \$15,338,737 and Criteria Services division membership fees of \$1,065,202, for a total of \$16,403,939. The total NPCC assessments and fees represent an increase of 2.1% compared to the 2019 total assessments and fees of \$16,062,277. 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 the Northeast 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, coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (ii) 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](http://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. In total, from a net energy for load perspective, NPCC is approximately 46% U.S. and 54% Canadian. With regard to Canada, approximately 70% of Canadian net energy for load is within the NPCC Region.

Effective January 1, 2016, NPCC executed an Amended and Restated Regional Delegation Agreement with the North American Electric Reliability Corporation (NERC) 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 or Agreements with Canadian provincial regulatory and/or governmental authorities in Ontario, Québec, New Brunswick and Nova Scotia.

It is imperative that NPCC maintain its ability to carry out delegated authorities and responsibilities. NPCC has a 2020 targeted staffing level of 43.25 power industry professionals and support personnel. Details of the 2020 business plans and budget for each program area are included in Section A for the Regional Entity division. The 2020 Regional Entity division schedules are shown in Section B. Section C details the 2020 Criteria Services division business plan and budget.

## Membership and Governance

NPCC monitors approximately 215 registered entities and some 448 functions in the Region for compliance with mandatory Reliability Standards. NPCC currently has approximately 80 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 which are also registered entities within the NPCC Region are subject to compliance with Reliability Standards, consistent with their registration, and also 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), Transcos 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

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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, in addition to Reliability Standards, and 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) advise the Board on finance, governance, compensation and human resource matters consistent with their approved charters. The Board endorses a non-employee, Certified Public Accountant for election by the NPCC Members as Treasurer of the corporation. The Treasurer chairs the FAC and works with the Chief Operating Officer who provides oversight of the finances of the corporation. The Treasurer reports to the Board on the corporation's financial position, on FAC activities, on tax code requirements, and on independent annual audit results and accounting practices.

The Regional Standards Committee (RSC), the Compliance Committee (CC), the Reliability Coordinating Committee (RCC), and the Public Information Committee, 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.

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 Memorandum of Understanding (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 particular regulatory backstop:

a) U.S. Foundation

The Federal Energy Regulatory Commission (FERC) certified NERC as the Electric Reliability Organization (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 was delegated from NERC to NPCC through the *Amended and Restated Regional Delegation Agreement*.

b) Ontario

On February 5, 2010, NERC, NPCC and the IESO amended and restated their earlier MOU, dated November 29, 2006, setting forth their mutual understanding as regards NERC's and NPCC's status in Ontario with respect to standard and criteria development, compliance enforcement, and other related matters. The IESO, whose statutory responsibilities include making and enforcing reliability standards, and making and enforcing Ontario market rules that govern the IESO-controlled grid and the wholesale electricity market, was established April 1, 1999 as the Independent Electricity Market Operator in Ontario under the *Electricity Act, 1998* (Ontario). The IESO is subject to the regulatory oversight of the Ontario Energy Board (OEB).

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. However, a 2008 amendment to the *Electricity Act, 1998* (Ontario) allows the OEB to review these standards and criteria and issue orders preventing their implementation and remanding them back to NERC and NPCC.

The IESO is subject to compliance monitoring and enforcement by NPCC. The IESO is also subject to compliance monitoring and enforcement of the Ontario market rules by the IESO's



Market Assessment and Compliance Division (MACD) that operates at arm's length from the IESO's business units. The MOU notes that where MACD, NERC, and NPCC engage in investigations pursuant to their respective mandates regarding compliance, MACD can request to take the lead. Moreover, of the three, MACD is the only entity that can assess financial penalties for any Ontario market participant's or the IESO's non-compliance with Ontario market rules, which includes non-compliance with NERC standards and NPCC criteria.

The MOU provides for a peer review process to promote the common compliance and enforcement objectives of NERC/NPCC and MACD. From the perspective of NPCC and NERC, this process, in part, is meant to assure registered entities outside of Ontario that the MACD program is rigorous, thorough and reliable.

The IESO is subject to NPCC assessments of compliance, including audits, as well as NPCC remedial action directives to correct non-compliance. 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.

The Régie de l'énergie is a public body established by the *Act respecting the Régie de l'énergie* (the Act). Pursuant to its authority under the Act, the Régie de l'énergie, through a series of decisions in 2007, designated Hydro-Québec Contrôle des mouvements d'énergie (HQCMÉ), a division of Hydro-Québec TransÉnergie, as the Reliability Coordinator for Québec. In accordance with its mandate and as recognized in the 2009 Agreement, it is this entity that is responsible for the filing with the Régie de l'énergie for approval of reliability standards in Québec. HQCMÉ has filed for the approval of certain reliability standards and the Régie de l'énergie has made certain reliability standards mandatory in Québec and is continuing proceedings to make additional reliability standards mandatory in Québec.

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NPCC also conducts reliability assurance activities within Québec, including but not limited to events analysis, Reliability Assessment and Performance Analysis and compliance investigations, consistent with the NPCC *Amended and Restated Bylaws*.

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, quasi-judicial 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.

With respect to the approval of reliability standards, the NB Electricity Act provides that all of the NERC Reliability Standards that were effective in New Brunswick prior to October 1, 2013 continue to be effective in New Brunswick after October 1, 2013. Additionally, the NB Power is required to file for approval, modification, or retirement of NERC Reliability Standards 60 days after a NERC Reliability Standard is approved, modified, or retired by the FERC. The NBEUB rules on the filed Reliability Standard after considering (a) the potential impact on the reliability of the bulk power system, (b) the potential cost and benefits (c) the public interest, and (d) any other factors that the NBEUB considers relevant. The Electricity Act requires the NBEUB to notify NPCC and NERC of an application by NB Power with respect to reliability standards and provide for a 60 day comment period. The NBEUB is required to approve the reliability standards if there are not substantive modifications proposed from the FERC approved NERC Reliability Standard and there were no substantive comments filed. Amendments to the reliability standard to make them compatible with New Brunswick or Canadian law are considered non-substantive. The approval of reliability standards may be subject to a hearing for several reasons, including substantive comments from NPCC or NERC.

With respect to the monitoring and enforcement of the Reliability Standards in New Brunswick, the NB Electricity Act provides for NPCC to identify entities that must register with the NBEUB in the New Brunswick specific registry. Additionally, NPCC may carry out the compliance monitoring and assessment for the NBEUB and assist and advise the enforcement for the NBEUB, including financial penalties. NPCC is also permitted to carry out or exercise any power in the implementing regulations that is specific to the NBEUB, as provided for in the Service Contract. Additionally, NPCC has the powers of an inspector, which permits NPCC to audit and spot check entities within 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,

NERC and NPCC filed standards and criteria with the Nova Scotia Utility and Review Board (NSUARB) for approval on June 30, 2010 and June 29, 2010, respectively. A decision from the NSUARB on both NERC and NPCC filings was rendered on July 20, 2011. Hence, the standards and criteria are mandatory in Nova Scotia and NSPI will be subject to the NERC compliance monitoring and enforcement program, as implemented by NPCC.

NPCC will conduct compliance and enforcement activities with respect to the standards and forward any non-compliance 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.

## **2020 Key Goals and Key Deliverables**

NERC and the Regional Entities collaborated in the development of a common operating model with complementary roles and responsibilities, an ERO Enterprise Long-term Strategy and an ERO Enterprise Operating Plan. Links to these documents, which incorporated risks identified by the Reliability Issues Steering Committee, are included in the NERC 2020 Business Plan and Budget and may be referenced by the users of this document.

NPCC activities that support ERO Enterprise 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 Reliability Standards as well as facilitating a Distributed Energy Resources (DER) Forum. 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 enforcement activities and implementing the ERO Enterprise CMEP IT tool (Align). The Reliability Assessment and Performance Analysis program will be focusing on 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. In an order to achieve these goals and expanded efforts, while minimizing increases in budget, significant reprioritization within the business plan and reallocation of resources were required.

## **Regional Entity Division Functional Scope**

NPCC's Regional Entity division functions in support of the ERO include:

- Active participation in the development of North American Reliability Standards for the bulk electric system, and as needed development of Reliability Standards 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.
- 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.

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 Compliance Monitoring and Enforcement IT tool (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 EPOA 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.

## **2020 Overview of Regional Entity Division Cost Impacts**

The proposed Regional Entity division assessment of \$15,338,737, to support the Regional Entity division operating budget of \$16,601,647, is an increase of 2.2% compared to the 2019 assessment of \$15,003,411.

## **2019 Projections**

Current year projections are taken into consideration in development of the budget. Expenses are currently projected to be on budget in all areas or slightly under budget. 2019 Projections reflect expectations based on the first quarter variance report. It is anticipated that projections could change throughout 2019 and would be reflected in each subsequent quarter's variance report.

## **Statement of Activities Format**

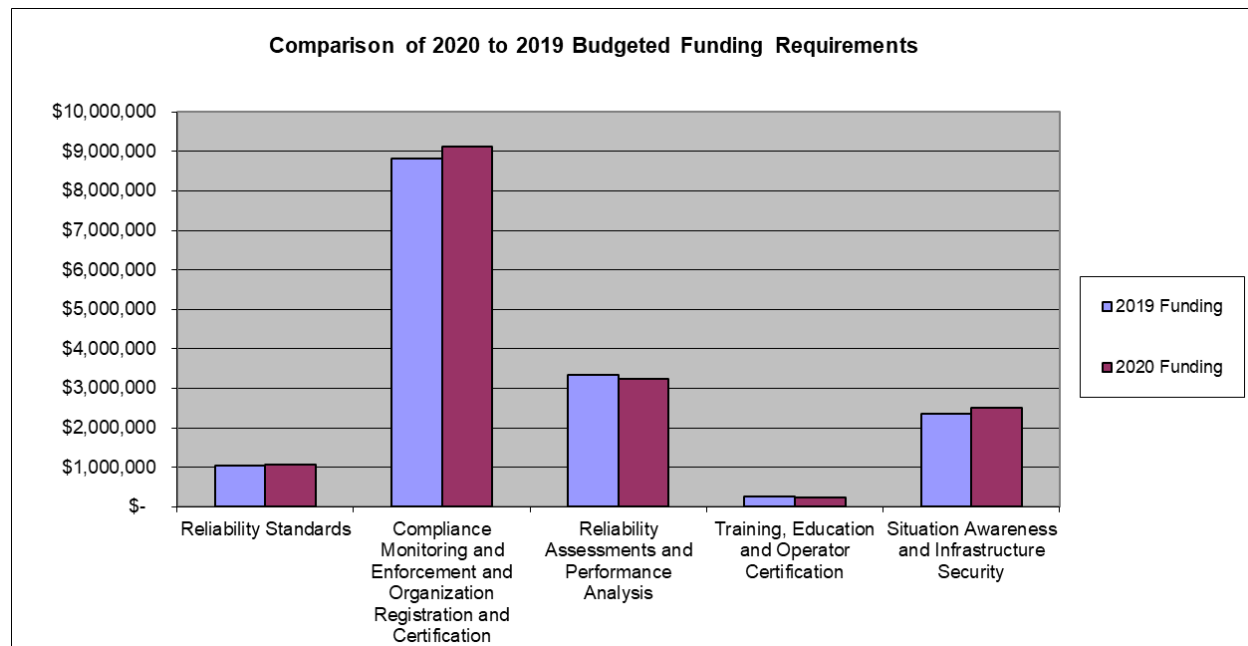
Beginning with the 2020 Business Plan & Budget (BP&B), NERC and the Regions are implementing format revisions to the Statement of Activities report. These revisions are intended to ensure that NERC and the Regions report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), provide enhanced transparency of financing activity (e.g., debt borrowing, leased-financed asset purchases, and principal payments), and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). The goal of the new format is to improve 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. One of the format revisions is that the Statements of Activities will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (which resulted in depreciation having no impact on funding requirements or actual results).

In the 2020 BP&B document, the 2019 budget has been restated to reflect the new statement of activities reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, in the total entity and departmental Statements of Activities, depreciation expense has been removed from the 2019 operating expense budgets and projections, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections.

### Summary by Program

Program	Budget 2019	Projection 2019	Budget 2020	Variance	
				2020 Budget v 2019 Budget	Variance %
Reliability Standards	\$ 1,035,390	\$ 1,035,390	\$ 1,071,015	\$ 35,625	3.4%
Compliance Monitoring and Enforcement and Organization Registration and Certification	\$ 8,816,687	\$ 8,671,687	\$ 9,109,633	\$ 292,946	3.3%
Reliability Assessments and Performance Analysis	\$ 3,332,686	\$ 3,332,686	\$ 3,231,169	\$ (101,517)	-3.0%
Training, Education and Operator Certification	\$ 252,443	\$ 252,443	\$ 239,412	\$ (13,031)	-5.2%
Situation Awareness and Infrastructure Security	\$ 2,366,685	\$ 2,366,685	\$ 2,505,877	\$ 139,192	5.9%
<b>Total</b>	<b>\$ 15,803,891</b>	<b>\$ 15,658,891</b>	<b>\$ 16,157,107</b>	<b>\$ 353,216</b>	<b>2.2%</b>

This chart does not include allocation of working capital requirements among the Program Areas.



This chart does not include allocation of working capital requirements among the Program Areas.

## Personnel Analysis

Total FTE's by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs <sup>1</sup> 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>REGIONAL ENTITY DIVISION</b>						
<b>Operational Programs</b>						
Reliability Standards	1.93	1.93	1.00	0.93	1.93	0.00
Compliance Monitoring and Enforcement and Organization Registration and Certification	17.00	17.00	18.00	0.00	18.00	1.00
Training, Education, and Operator Certification	0.10	0.10	0.10	0.00	0.10	0.00
Reliability Assessment and Performance Analysis	5.83	5.83	4.50	0.93	5.43	-0.40
Situation Awareness and Infrastructure Security	5.00	5.00	5.40	0.00	5.40	0.40
<b>Total FTEs Operational Programs</b>	<b>29.86</b>	<b>29.86</b>	<b>29.00</b>	<b>1.86</b>	<b>30.86</b>	<b>1.00</b>
<b>Administrative Programs</b>						
Technical Committees and Member Forums	0.50	0.50	0.50	0.00	0.50	0.00
General and Administrative	2.50	2.50	2.50	0.23	2.73	0.23
Information Technology	2.00	2.00	2.00	0.00	2.00	0.00
Legal and Regulatory	1.00	1.00	2.00	0.00	2.00	1.00
Human Resources	1.00	1.00	1.00	0.00	1.00	0.00
Accounting and Finance	2.00	2.00	2.00	0.00	2.00	0.00
<b>Total FTEs Administrative Programs</b>	<b>9.00</b>	<b>9.00</b>	<b>10.00</b>	<b>0.23</b>	<b>10.23</b>	<b>1.23</b>
<b>Total FTEs</b>	<b>38.86</b>	<b>38.86</b>	<b>39.00</b>	<b>2.09</b>	<b>41.09</b>	<b>2.23</b>

<sup>1</sup>A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

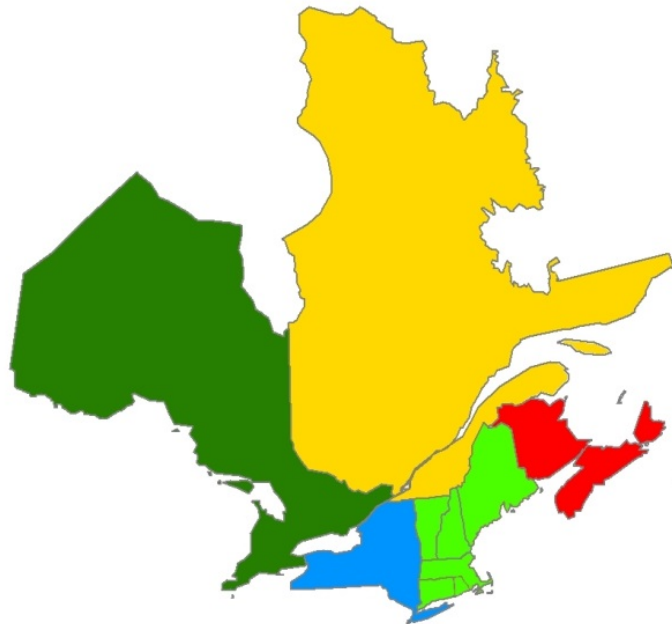
## 2019 Budget and Projection and 2020 Budget Comparisons

<b>Statement of Activities and Capital Expenditures</b>						
<b>2019 Budget &amp; Projection, and 2020 Budget</b>						
<b>REGIONAL ENTITY DIVISION</b>						
	2019 Budget	2019 Projection	Variance <sup>(2)</sup> 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 15,003,411	\$ 15,003,411	\$ -	\$ 15,338,737	\$ 335,326	
Penalty Sanctions <sup>(1)</sup>	-	-	-	120,000	120,000	
<b>Total ERO Funding</b>	<b>\$ 15,003,411</b>	<b>\$ 15,003,411</b>	<b>\$ -</b>	<b>\$ 15,458,737</b>	<b>\$ 455,326</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	67,500	-	67,500	-	
Interest & Investment Income	-	-	-	55,800	55,800	
<b>Total Funding (A)</b>	<b>\$ 15,070,911</b>	<b>\$ 15,070,911</b>	<b>\$ -</b>	<b>\$ 15,582,037</b>	<b>\$ 511,126</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 7,332,280	\$ 7,216,280	\$ (116,000)	\$ 7,704,262	\$ 371,982	
Payroll Taxes	449,994	444,994	(5,000)	479,019	29,026	
Benefits	1,613,078	1,585,078	(28,000)	1,943,385	330,306	
Retirement Costs	853,511	837,511	(16,000)	882,950	29,440	
<b>Total Personnel Expenses</b>	<b>\$ 10,248,862</b>	<b>\$ 10,083,862</b>	<b>\$ (165,000)</b>	<b>\$ 11,009,617</b>	<b>\$ 760,754</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 370,750	\$ 406,750	\$ -	\$ 397,750	\$ (9,000)	
Travel	845,900	845,900	-	845,900	-	
<b>Total Meeting Expenses</b>	<b>\$ 1,252,650</b>	<b>\$ 1,252,650</b>	<b>\$ -</b>	<b>\$ 1,243,650</b>	<b>\$ (9,000)</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 2,022,150	\$ 2,002,150	\$ (20,000)	\$ 2,071,150	\$ 49,000	
Office Rent	820,700	820,700	-	832,700	12,000	
Office Costs	676,347	676,347	-	685,981	9,634	
Professional Services	978,000	978,000	-	947,000	(31,000)	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 4,548,197</b>	<b>\$ 4,528,197</b>	<b>\$ (20,000)</b>	<b>\$ 4,587,831</b>	<b>\$ 39,634</b>	
<b>Total Direct Expenses</b>	<b>\$ 16,049,709</b>	<b>\$ 15,864,709</b>	<b>\$ (185,000)</b>	<b>\$ 16,841,098</b>	<b>\$ 791,388</b>	
<b>Indirect Expenses</b>	<b>\$ (415,818)</b>	<b>\$ (415,818)</b>	<b>\$ -</b>	<b>\$ (409,450)</b>	<b>\$ 6,368</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 15,633,891</b>	<b>\$ 15,448,891</b>	<b>\$ (185,000)</b>	<b>\$ 16,431,647</b>	<b>\$ 797,756</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (562,980)</b>	<b>\$ (377,980)</b>	<b>\$ 185,000</b>	<b>\$ (849,611)</b>	<b>\$ (286,630)</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ 170,000</b>	<b>\$ 170,000</b>	<b>\$ -</b>	<b>\$ 170,000</b>	<b>\$ -</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 15,803,891</b>	<b>\$ 15,618,891</b>	<b>\$ (185,000)</b>	<b>\$ 16,601,647</b>	<b>\$ 797,756</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (732,980)</b>	<b>\$ (547,980)</b>	<b>\$ 185,000</b>	<b>\$ (1,019,611)</b>	<b>\$ (286,630)</b>	
<sup>(1)</sup> \$120,000 of penalty sanctions collected to date and prior to June 30, 2019.						
<sup>(2)</sup> 2019 Projections reflect expectations based on the first quarter statement of activities. It is anticipated that projections could change throughout 2019 and would be reflected in each subsequent quarter's statement of activities.						

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## Section A – Regional Entity Division 2020 Business Plan and Budget

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## Section A — 2020 Regional Entity Division Business Plan and Budget

### Reliability Standards Program

<b>Reliability Standards Program Resources</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	1.93	1.93	0.00
Direct Expenses	\$665,870	\$693,683	\$27,813
Indirect Expenses	\$375,014	\$366,700	(\$8,314)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	(\$5,494)	\$10,632	\$16,126
Total Funding Requirement	\$1,035,390	\$1,071,015	\$35,625

### 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 Operating Plan, the ERO Enterprise Long-Term Strategy and aligns with NPCC Board of Director goals and strategies. 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 reliability standards which are clear, responsive to reliability and security risks, practical to implement, “results based”, and are cost effective. The primary objectives of NPCC’s Reliability Standards Program Area is to support the development of ERO standards and Regional variances which establish “results-based” requirements for addressing reliability risks 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 industry risk. NERC and Regional reliability standards must ensure the bulk electric system is planned, operated, and maintained in a manner that minimizes risks of cascading failures, system separation, and instability, and also avoids damage to major equipment, is responsive to risks, or limits interruptions of bulk power supply.

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, to augment, or to facilitate compliance with NERC Reliability Standards. 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 ISO tariffs, and individual interconnection agreements, as well as other executed contractual agreements. Regional Reliability Criteria may also address issues not within NERC’s statutory jurisdiction for Reliability Standards, such as resource adequacy, and conform to requirements in Section 313 of the NERC Rules of Procedure.

In addition, the NPCC Reliability Standards Program Area has initiated a Distributed Energy Resources (DER) Forum. As conventional fossil fuel units and nuclear retirements are increasingly being replaced by DER on the transmission system and with grid edge DER on the

distribution system, the reliable operation of the BES as defined in the legislation could be impacted. The control systems of DER introduce new capabilities that could enhance reliability and understanding interoperability issues between transmission and distribution systems will become increasingly important. NPCC is engaged in a number of areas to ensure reliable integration into the BES and opportunities to provide industry guidance for interconnecting DER.

### 2020 Key Assumptions

- The number of continent-wide Reliability Standards development projects is expected to remain relatively stable, except as required to address any new FERC directives to create or modify Reliability Standards, or industry submittals of standard authorization requests.
- Continent-wide Reliability Standards projects will consist primarily of acting on recommendations of the various phases of the Standards Efficiency Review project, conducting periodic reviews on existing 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. This activity will require the allocation of technical resources from several internal NERC departments (e.g., Reliability Assessment and Performance Analysis (RAPA), Reliability Risk Management, Compliance Analysis and Certification, and Compliance Assurance) and support from across the ERO Enterprise.
- During the periodic review of NERC Reliability Standards, NPCC's Regional Reliability Standard for Underfrequency Load Shedding (UFLS) will be reviewed for potential incorporation as variances or as improvements to the continent-wide requirements. Regional and NERC Reliability Standards development processes may require further modification to efficiently accomplish this task. NPCC will work with NERC and other Regional Entities as necessary on projects where there is a Regional Reliability Standard/variance.
- 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 of 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.

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**2020 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, as a representative of the NERC Regional Entities and 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 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 identify cost of risk mitigation for the draft standards.
- Participate in the NERC Standards Efficiency Review Project future phases and resulting activities.
- 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 by closer coordination with the 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 Enhanced 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 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 Regional 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 of the NPCC Members to the NERC Standards Drafting Team (SDT) and provide a list of any unaddressed issues to allow the Members to cast a ballot based on regional concerns to enhance the efficiency of the ERO standards development projects.
- Review and identify issues and concerns raised in FERC NOPRs and 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) activities as they identify emerging risks and develop recommended actions to mitigate such risks. 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, Facility Ratings (IROL and SOL development), Geomagnetic Disturbances, High

Altitude Electromagnetic Pulse (HEMP), changes to standards driven by inverter based DERs, 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 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.
- Identify opportunities to improve resilience of the BES.
- Identify and coordinate reliability related issues with local governmental authorities where jurisdictional issues may exist.
- Ensure the topics addressed by the Reliability Standards align with changing industry 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 activities.
- Identify opportunities and processes for cost-effectiveness analysis activities to determine the need to revise a standard during the Periodic Review or Standards Grading efforts.
- Identify any emerging interconnection-wide reliability issues which may need standards solutions and forward to the NERC Reliability Issues Steering Committee for their consideration.
- Identify opportunities to increase reliability or mitigate emerging risk through the revision of standards and their associated requirements.
- Identify any North American Electric Standards Review Board (NAESB) activities which may impact ERO standards.
- Identify potential market related issues for Regional Standards through NPCC RSC coordination and reviews.
- Participate in NPCC Compliance and Standards Workshops and any NERC workshops and webinars to promote industry awareness.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Standards development, NPCC estimates that it will expend approximately 7% of its resources on this activity.

### Resource Requirements

- No significant changes.

## Reliability Standards Program

Funding sources and related expenses for the Reliability Standards section of the 2020 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 2019 Budget & Projection, and 2020 Budget						
Reliability Standards						
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 1,035,390	\$ 1,035,390	\$ -	\$ 1,063,510	\$ 28,120	
Penalty Sanctions	-	-	-	7,505	7,505	
<b>Total ERO Funding</b>	<b>\$ 1,035,390</b>	<b>\$ 1,035,390</b>	<b>\$ -</b>	<b>\$ 1,071,015</b>	<b>\$ 35,625</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 1,035,390</b>	<b>\$ 1,035,390</b>	<b>\$ -</b>	<b>\$ 1,071,015</b>	<b>\$ 35,625</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 382,872	\$ 382,872	\$ -	\$ 400,744	\$ 17,872	
Payroll Taxes	22,735	22,735	-	23,034	298	
Benefits	106,764	106,764	-	110,172	3,408	
Retirement Costs	41,599	41,599	-	43,833	2,234	
<b>Total Personnel Expenses</b>	<b>\$ 553,970</b>	<b>\$ 553,970</b>	<b>\$ -</b>	<b>\$ 577,783</b>	<b>\$ 23,813</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 7,000	\$ 7,000	\$ -	\$ 5,000	\$ (2,000)	
Travel	94,900	94,900	-	90,900	(4,000)	
<b>Total Meeting Expenses</b>	<b>\$ 101,900</b>	<b>\$ 101,900</b>	<b>\$ -</b>	<b>\$ 95,900</b>	<b>\$ (6,000)</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 10,000	\$ 10,000	\$ -	\$ 20,000	\$ 10,000	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ 20,000</b>	<b>\$ 10,000</b>	
<b>Total Direct Expenses</b>	<b>\$ 665,870</b>	<b>\$ 665,870</b>	<b>\$ -</b>	<b>\$ 693,683</b>	<b>\$ 27,813</b>	
<b>Indirect Expenses</b>	<b>\$ 375,014</b>	<b>\$ 375,014</b>	<b>\$ -</b>	<b>\$ 366,700</b>	<b>\$ (8,313)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 1,040,884</b>	<b>\$ 1,040,884</b>	<b>\$ -</b>	<b>\$ 1,060,383</b>	<b>\$ 19,499</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (5,494)</b>	<b>\$ (5,494)</b>	<b>\$ -</b>	<b>\$ 10,632</b>	<b>\$ 16,126</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>(5,494)</b>	<b>(5,494)</b>	<b>-</b>	<b>10,632</b>	<b>16,126</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 1,035,390</b>	<b>\$ 1,035,390</b>	<b>\$ -</b>	<b>\$ 1,071,015</b>	<b>\$ 35,625</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ 0</b>	

## Compliance Monitoring and Enforcement and Organization Registration and Certification Program

<b>Compliance Monitoring and Enforcement and Organization Registration and Certification Program Resources</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	17.00	18.00	1.00
Direct Expenses	\$5,561,849	\$5,590,473	\$28,624
Indirect Expenses	\$3,303,230	\$3,420,003	\$116,772
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	(\$48,392)	\$99,157	\$147,550
Total Funding Requirement	\$8,816,687	\$9,109,633	\$292,946

### 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, and individual Canadian Provincial MOUs and/or Agreements. The program supports Compliance Enforcement (Section 400) and Organization Registration and Certification (Section 500), the ERO Enterprise Operating Plan, 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) IT Tool (Align) in the United States, including the compliance monitoring, 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 objective, fair, and promotes a culture of reliability excellence through risk-informed compliance monitoring, mitigation, enforcement, and registration. To accomplish this goal, CORC is

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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 three sub-program areas. The Compliance Fundamentals sub-program area:

- Identifies and registers the BES owners, operators, and users that are required to comply with the NERC and Regional Reliability Standards,
- Conducts Certifications in accordance with the NERC ROP,
- Leads the development of the annual implementation plans (ERO Enterprise, NPCC, Quebec, New Brunswick),
- Implements the ERO Enterprise CMEP IT tool (Align),
- Responds to any Complaints submitted to NPCC,
- Maintains any NPCC specific compliance tools or programs needed, and;
- Conducts outreach, training, and education to support the implementation of Reliability Standards.
- Conducts Inherent Risk Assessments (IRA) on registered entities,
- Conducts Internal Controls Evaluations (ICE) on volunteering registered entities,
- Assists with the development of the annual CMEP implementation plans, and;
- Provides the basis for each registered entity's Compliance Oversight Plan.

### ***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 ICE into its compliance monitoring process,
- Issues reports, including audit reports, spot check reports, guided self-certification reports, 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,
- Evaluates and approves the mitigation activities or Mitigation Plan for each noncompliance,
- Assesses the relevant compliance history for each noncompliance,
- Determines the disposition method for each noncompliance,

- Calculates penalty sanctions in consistent fashion, and
- Evaluates registered entities for the self-logging program.

## 2020 Key Assumptions and Cost Impacts

2019	Projected 2020
5 On-Site Audits	8 On-Site O&P Audits
8 On-Site CIP Audits	10 On-Site CIP Audits
28 Off-Site Audits	40 Off-Site O&P Audits
24 Off-Site CIP Audits	25 Off-Site CIP Audits
15 Spot Checks	10 Spot Checks
18 Guided self-certifications	40 Self-certifications
33 Inherent Risk Assessments	50 Inherent Risk Assessments
4 On-site O&P Internal Control Evaluations	7 On-site O&P Internal Control Evaluations
5 On-site CIP Internal Control Evaluations	10 On-Site CIP Internal Control Evaluations
216 Violations (Estimated)	225 Violations (Estimated)
Settlements Covering 50 Violations	Settlements Covering 80 Violations
0 Hearings (Unbudgeted)	1 Hearings (Unbudgeted)
1 CI (Estimated)	1 CI (Estimated)
3 Entity Certifications	2 Entity Certifications

- Compliance Monitoring activities are projected to increase in 2020 from 2019 and will be cost effectively addressed with the addition of one FTE on the compliance staff, which is offset by a decrease in contract audit costs.
- The 2020 Business Plan projects increases in Enforcement Processing activities over the 2019 Budget. It is expected that the increase in violation processing will continue in 2021. This is partly due to the increase in the number of cyber systems that are in scope for compliance in most jurisdictions.
- One Compliance Investigation is projected for 2020. Compliance Investigations are manpower intensive for NPCC staff (requiring allocation of more resources and potentially higher than normal costs).

## 2020 Goals and Key Deliverables

- Conduct scheduled compliance monitoring and enforcement activities pursuant to the 2020 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 develop and implement a common and consistent CMEP IT tool (Align) for 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 and CMEP software reporting systems and tools.
- Conduct two in-person Compliance Workshops.
- Develop annual reports for QCMEP/CMEP activity in Québec and New Brunswick.
- Develop and/or provide input on 2020 CMEP Implementation Plans (ERO Enterprise, NPCC, 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 an ICE for registered entities that volunteer for such an assessment.
- Continue to assess internal controls during monitoring engagements
- Conduct 2020 Compliance Engagement Schedule based on risk to the BPS and number of registered entities and promote the ERO Risk-Based Approach initiatives by:
  - Utilizing the Audit Checklist and Auditor’s Handbook for all on-site and off-site audits.
  - Preparing an updated Inherent Risk Assessment as necessary for all scheduled engagements and performing an Internal Controls Evaluation for all entities that volunteer.
- 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 for the self-logging program.
- Analyze noncompliance trends and associated risks in order to develop guidance to registered entities in support of a culture of reliability.
- Perform outreach (webinars, workshops) to educate entities on noncompliance root causes and on techniques for noncompliance assessment and communication associated with self-reporting to NPCC; including the provision of guidance on the development of mitigation activities that will prevent recurrence.
- Assess evolving cyber security risks for opportunities to develop internal control flow diagrams in order to provide entity guidance

Based on the portion of professional/technical staff time and other resources devoted to Compliance monitoring and enforcement and organizational registration and certification, NPCC estimates that it will expend 56% of its resources on this activity.

**Resource Requirements****Personnel**

- One additional FTE to increase in-house expertise rather than utilizing contractor labor. The increase in personnel expenses will be offset by a decrease in Consultants and Contracts.

**Fixed Assets**

- No new functionality is planned for the Compliance Issues Tracking System and CMEP Data Administration Application at this time based on the planned implementation of the ERO Enterprise CMEP IT Tool (Align).

## 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 2020 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						
2019 Budget & Projection, and 2020 Budget						
Compliance Monitoring and Enforcement and Organization Registration and Certification						
				Variance		Variance
	2019	2019	2019 Projection	2019 Projection	2020	2020 Budget
	Budget	Projection	Over(Under)	v 2019 Budget	Budget	v 2019 Budget
						Over(Under)
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 8,183,815	\$ 8,183,815	\$ -	\$ 9,034,625	\$ 850,810	
Penalty Sanctions	-	-	-	69,994	69,994	
<b>Total ERO Funding</b>	<b>\$ 8,183,815</b>	<b>\$ 8,183,815</b>	<b>\$ -</b>	<b>\$ 9,104,618</b>	<b>\$ 920,803</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 8,183,815</b>	<b>\$ 8,183,815</b>	<b>\$ -</b>	<b>\$ 9,104,618</b>	<b>\$ 920,803</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 2,815,882	\$ 2,720,882	\$ (95,000)	\$ 2,928,438	\$ 112,557	
Payroll Taxes	191,849	188,849	(3,000)	202,717	10,867	
Benefits	585,543	572,543	(13,000)	732,104	146,561	
Retirement Costs	301,025	287,025	(14,000)	314,664	13,638	
<b>Total Personnel Expenses</b>	<b>\$ 3,894,299</b>	<b>\$ 3,769,299</b>	<b>\$ (125,000)</b>	<b>\$ 4,177,923</b>	<b>\$ 283,624</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 15,000	\$ 15,000	\$ -	\$ 15,000	\$ -	
Travel	295,400	295,400	-	300,400	5,000	
<b>Total Meeting Expenses</b>	<b>\$ 310,400</b>	<b>\$ 310,400</b>	<b>\$ -</b>	<b>\$ 315,400</b>	<b>\$ 5,000</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 1,357,150	\$ 1,337,150	\$ (20,000)	\$ 1,097,150	\$ (260,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 1,357,150</b>	<b>\$ 1,337,150</b>	<b>\$ (20,000)</b>	<b>\$ 1,097,150</b>	<b>\$ (260,000)</b>	
<b>Total Direct Expenses</b>	<b>\$ 5,561,849</b>	<b>\$ 5,416,849</b>	<b>\$ (145,000)</b>	<b>\$ 5,590,473</b>	<b>\$ 28,624</b>	
<b>Indirect Expenses</b>	<b>\$ 3,303,230</b>	<b>\$ 3,303,230</b>	<b>\$ -</b>	<b>\$ 3,420,003</b>	<b>\$ 116,772</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 8,865,080</b>	<b>\$ 8,720,080</b>	<b>\$ (145,000)</b>	<b>\$ 9,010,476</b>	<b>\$ 145,396</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (681,264)</b>	<b>\$ (536,264)</b>	<b>\$ 145,000</b>	<b>\$ 94,142</b>	<b>\$ 775,407</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ (48,392)</b>	<b>\$ (48,392)</b>	<b>\$ -</b>	<b>\$ 99,157</b>	<b>\$ 147,550</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 8,816,687</b>	<b>\$ 8,671,687</b>	<b>\$ (145,000)</b>	<b>\$ 9,109,633</b>	<b>\$ 292,946</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (632,872)</b>	<b>\$ (487,872)</b>	<b>\$ 145,000</b>	<b>\$ (5,015)</b>	<b>\$ 627,857</b>	

## Reliability Assessment and Performance Analysis Program

<b>Reliability Assessment and Performance Analysis Program Resources</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	5.83	5.43	-0.40
Direct Expenses	\$2,216,468	\$2,169,556	(\$46,912)
Indirect Expenses	\$1,132,814	\$1,031,701	(\$101,113)
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	(\$16,596)	\$29,913	\$46,508
Total Funding Requirement	\$3,332,686	\$3,231,169	(\$101,517)

### 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.

### 2020 Key Focus Areas

In collaboration with NERC, Key Focus Area activities for 2020 include:

- Integration of RAPA information systems for assessments and associated data requirements, including expanded and enhanced enterprise-wide data collection and analysis systems and capabilities for performance analyses, with a focus on independent and technically sound reliability assessments supporting delivery of high quality reports.
- Development of assessment and performance analysis techniques as well as resource capabilities and tools, including probabilistic and scenario evaluations, which address the impacts of new technologies, changing resource or demand resource composition, and environmental related regulations or legislation.
- Support ERO activities to identify key reliability risks and appropriate projects designed to enhance reliability and/or mitigate risks.
- Providing technical resources to support NERC special reliability assessments which focus on specific reliability risk areas in geographic areas with specific identified reliability concerns.
- Advancing analytical capabilities for identifying and determining reliability risks and conducting associated related reliability assessments.

### **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. These assessment-related activities support ERO Goal 3: “*Reduction of Known Risks to Reliability*” and 4 “*Identification and Assessment of Emerging Reliability Risks.*”

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 MMWG and the NPCC SS-37 Working Group.

### **ERAG Committee Activities 2020 Goals and Deliverables**

- Transition the steady state and dynamic simulation base case data compilation and development work from ERAG to the Eastern Interconnection Planning Collaborative (EIPC).
- Support EIPC designation and certification as the Eastern Interconnection MOD-032, Requirement R4 Designee.
- During a transition period 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 2020. 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 2020 Goals and Deliverables**

- During a transition period of the Eastern Interconnection base case development MOD-032-1, Requirement 4 Designee period from ERAG to EIPC facilitate the completion of the steady state and dynamic simulation base case data compilation and development for the 2020 series of cases.
- Check and confirm that the dynamic model data passes all applicable checks and acceptance criteria.
- 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 2020 Goals and Deliverables**

- Determine an appropriate topic of focus for the 2020 ERAG Assessment. In recent years, ERAG has conducted peer reviews on select topics in lieu of conducting assessments. Conduct the 2020 ERAG Assessment and prepare any associated documentation.
- Coordinate Assessment efforts with the NERC Reliability Assessment and System Analysis (RASA) Program staff to incorporate any risk-based or other approaches to supplement NERC Assessments.

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**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. No NPCC Exception Requests are due for recertification in 2020. Analysis of an Exception Request from a New Brunswick entity may extend into 2020.

**2020 NERC Activities**

NPCC will provide the Regional perspective with appropriate NPCC RAPA staff participation on selective NERC Technical Committees and key related NERC Subcommittees, Task Forces and Working Groups, including:

- Event Analysis Subcommittee (EAS)
- Inverter-Based Resource Performance Task Force (IRPTF)
- Performance Analysis Subcommittee (PAS)
  - Demand Response Availability Data System Working Group (DADSWG)
  - Battery Availability Data System Working Group (BADSWG)
  - Generating Availability Data System Working Group (GADSWG)
  - Misoperation Information Data Analysis System (MIDASWG)
  - Transmission Availability Data System Working Group (TADSWG)
- Reliability Assessment Subcommittee (RAS)
  - Probabilistic Assessment Working Group (PAWG)
- System Analysis and Modeling Subcommittee (SAMS)
  - Load Modeling Task Force (LMTF)
  - Power Plant Model Verification Task Force (PPMVTF)
  - Node Breaker Modeling Group (NBMG)
- System Protection and Control Subcommittee (SPCS)
- Synchronized Measurement Subcommittee (SMS)
- System Planning Impacts from Distributed Energy Resources Working Group (SPIDERWG)
- Battery and Storage Task Force (BASTF)

**ERO – Executive Management Group (EMG) 2020 Activities**

Provide analytic support for the ERO-EMG:

- Operations Leadership Team;
- Bulk Electric System Exception Process Working Group, under Organization Registration and Certification Group (ORCG);
- ERO-RAPA Group; and,
- Other activities as directed by the ERO-Executive Management Group.

**2020 Goals and Key Deliverables**

NPCC Task Force activities support ERO Goal No. 3 “*Identification and Assessment of Significant Risks to Reliability*” and ERO Goal No. 4 “*Identification and Assessment of Emerging Risks to Reliability.*”

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**Task Force on Coordination of Planning**

The primary mission of the NPCC Task Force on Coordination of Planning (TFCP) is to promote reliability through the coordination of NPCC Area and NERC planning processes and activities.

**TFCP Reliability Assessment and Performance Analysis 2020 Goals and Deliverables**

- Coordinate NPCC responses to the approved NERC Essential Reliability Services Working Group recommendations with the Task Force on Coordination of Operation and the Task Force on System Studies to ensure that the recommendations are addressed.
- Coordinate the development of additional NPCC Criteria as necessary and track any new and developing Regional NPCC Standards through the NPCC Regional Standards Committee.
- Monitor industry practices and make recommendations to the NPCC Regional Standards Committee regarding related NERC Standards.
- Oversee the NPCC Directory No. 1 Implementation Plan (Dated: September 30, 2015).
- Oversee the activities of the NPCC CP-8 Working Group.
- Evaluate and recommend RCC approval of NPCC Area Transmission Reviews.
- Evaluate and recommend RCC approval of NPCC Area Reviews of Resource Adequacy.
- Coordinate, monitor, review, and make recommendations on the retirement of existing in-service and/or implementation of proposed or modified Special Protection Systems Remedial Action Schemes.
- Coordinate the NPCC transition from SPS to RAS in accordance with PRC-012-2.
- Lead the NPCC Task Forces in conducting the review of the reliability and cost benefit of Directory No. 1, Design and Operation of the BPS.
- Support related reliability activities, including consideration of any requests for sub-regional assessments.
- Keep informed on studies and developments in neighboring systems which might impact NPCC reliability.
- Review Events Analysis Lessons Learned using the Events Analysis discussion/review template.

**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 interconnected bulk power systems and for the review of related NPCC documents.

**TFSS Reliability Assessment and Performance Analysis 2020 Goals and Deliverables**

- Review and recommend approval of Area Transmission Reviews.
- Review and classify new and modified Remedial Action Schemes.
- Review and Implement the NPCC A-10 Criteria.
- Perform annual review and update of the Major Project List.
- 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.

### **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 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 2020 Goals and Deliverables**

- Assess proposed protection systems and Special Protection Systems/Remedial Action Schemes.
- Participate and/or serve as lead Task Force in the implementation of applicable Regional NERC Reliability Standards.
- 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 related NERC Reliability Standards.
- Monitor the NPCC metric on protection system Misoperation Risk Index Score calculations.
- 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.
- Review ongoing changes to the North American Reliability Corporation Critical Infrastructure Protection Standards and evaluate impacts to Registered Entities Protection Systems, SCADA, and Monitoring Systems.

### **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 2020 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.”



- Support and take part in the biennial, continent-wide Grid Security Exercise, including a review of the associated reports and Lessons Learned.
- Complete a triennial review of the individual RC Areas' restoration plans.
- 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.
- Conduct pre-seasonal NPCC Reliability Assessments.
- Conduct reviews of applicable NPCC Directories, Criteria, Guides and Procedures in accordance with their applicable review dates.
- Coordinate system awareness among NPCC Reliability Coordinators through periodic conference calls.
- Monitor the trends and impacts of the changing resource mix and the effects of the proliferation of the new resources on real-time operations, as well as behavior during and impacts on recovery and restoration plans.
- Provide assistance to the NERC Event Analysis Process and evaluate the operational applicability of the identified Lessons Learned.
- Review a biennial summary of operating tool failures and lessons learned for the preceding study period.
- Review and analyze the performance of Simultaneous Activation of Reserve (SAR) implementation following an event to enhance the process.

### **NPCC Regulatory/Governmental Affairs Advisory Group**

The NPCC Governmental/Regulatory Affairs Advisory Group provides a forum where industry and governmental and/or regulatory representatives can exchange views and strive to develop consensus policy recommendations on reliability issues specific to the NPCC Region (Northeastern United States and Eastern Canada) and share actionable information among NPCC, NERC and other related governmental and/or regulatory agencies related to Regional reliability matters.

The Regulatory/Governmental Affairs Advisory Group activities indicated below are done in support of ERO Goal No. 3 "*Reduction of Known Risks to Reliability*" and ERO Goal No. 4 "*Identification and Assessment of Emerging Risks to Reliability*."

### **NPCC Regulatory/Governmental Affairs Advisory Group 2020 Goals and Deliverables**

- Continued outreach to NPCC's state electricity and environmental regulators stressing the importance of understanding and considering reliability impacts during the development of State/Provincial initiatives (such as the identified Essential Reliability Services, Distributed Energy Resource integration).
- Focus on initiatives concerning regional planning, distributed energy resource requirements, the timing of new generation resources and transmission infrastructure projects.

Based on the portion of professional/technical staff time and other resources devoted to Reliability Assessment and Performance Analysis, NPCC estimates that it will expend 20% of its resources on these activities.

**Resource Requirements****Personnel**

- Decrease of 0.40 FTE represents reallocation of staff to situation awareness to address shift in focus areas.

**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 2020 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						
2019 Budget & Projection, and 2020 Budget						
Reliability Assessment and Performance Analysis						
	2019	2019	Variance	2020	Variance	
	Budget	Projection	2019 Projection	Budget	2020 Budget	
			v 2019 Budget		v 2019 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 3,332,686	\$ 3,332,686	\$ -	\$ 3,210,055	\$ (122,632)	
Penalty Sanctions	-	-	-	21,115	21,115	
<b>Total ERO Funding</b>	<b>\$ 3,332,686</b>	<b>\$ 3,332,686</b>	<b>\$ -</b>	<b>\$ 3,231,169</b>	<b>\$ (101,517)</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 3,332,686</b>	<b>\$ 3,332,686</b>	<b>\$ -</b>	<b>\$ 3,231,169</b>	<b>\$ (101,517)</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 1,135,264	\$ 1,135,264	\$ -	\$ 1,006,128	\$ (129,136)	
Payroll Taxes	69,027	69,027	-	64,023	(5,004)	
Benefits	219,655	219,655	-	218,787	(868)	
Retirement Costs	123,322	123,322	-	109,418	(13,904)	
<b>Total Personnel Expenses</b>	<b>\$ 1,547,268</b>	<b>\$ 1,547,268</b>	<b>\$ -</b>	<b>\$ 1,398,356</b>	<b>\$ (148,912)</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 23,000	\$ 23,000	\$ -	\$ 22,000	\$ (1,000)	
Travel	216,200	216,200	-	216,200	-	
<b>Total Meeting Expenses</b>	<b>\$ 239,200</b>	<b>\$ 239,200</b>	<b>\$ -</b>	<b>\$ 238,200</b>	<b>\$ (1,000)</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 430,000	\$ 430,000	\$ -	\$ 533,000	\$ 103,000	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 430,000</b>	<b>\$ 430,000</b>	<b>\$ -</b>	<b>\$ 533,000</b>	<b>\$ 103,000</b>	
<b>Total Direct Expenses</b>	<b>\$ 2,216,468</b>	<b>\$ 2,216,468</b>	<b>\$ -</b>	<b>\$ 2,169,556</b>	<b>\$ (46,912)</b>	
<b>Indirect Expenses</b>	<b>\$ 1,132,814</b>	<b>\$ 1,132,814</b>	<b>\$ -</b>	<b>\$ 1,031,701</b>	<b>\$ (101,113)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 3,349,282</b>	<b>\$ 3,349,282</b>	<b>\$ -</b>	<b>\$ 3,201,257</b>	<b>\$ (148,025)</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (16,596)</b>	<b>\$ (16,596)</b>	<b>\$ -</b>	<b>\$ 29,913</b>	<b>\$ 46,508</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ (16,596)</b>	<b>\$ (16,596)</b>	<b>\$ -</b>	<b>\$ 29,913</b>	<b>\$ 46,508</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 3,332,686</b>	<b>\$ 3,332,686</b>	<b>\$ -</b>	<b>\$ 3,231,169</b>	<b>\$ (101,517)</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ 0</b>	

## Training, Education, and Operator Certification Program

<b>Training, Education, and Operator Certification Program Resources</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	0.10	0.10	0.00
Direct Expenses	\$233,297	\$219,862	(\$13,435)
Indirect Expenses	\$19,431	\$19,000	(\$431)
Other Non-Operating Expenses	\$0	\$0	\$0
Inc(Dec) in Fixed Assets	(\$285)	\$551	\$836
Total Funding Requirement	\$252,443	\$239,412	(\$13,031)

### 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.

### Training Program Background and Description

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. PJM RC has significant interaction with the NPCC RCs and system operators from PJM have been regular participants at past seminars. Examples of specific topics addressed at recent seminars include: 1) additions and impacts to operations of renewable resources, 2) the development of conditions and violations related to major system Blackouts, 3) human performance related to system operations, 4) cybersecurity threats and system operator concerns, 5) system restoration approaches and tie-ins to neighboring systems and 6) application of NPCC Simultaneous Activation of Reserve. Usually, control center 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.

The training activities indicated below are done in support of ERO Goals No. 3 “*Reduction of Known Reliability Risks*” and No. 6 “*Effective and Efficient Operation*”. Related contributing activities to these goals include “Working with industry forums, expand communication and encourage sharing of good industry practices for increasing Human Performance (HP) effectiveness”, “Acquire, engage, develop, and retain highly qualified talent with requisite technical expertise to execute the ERO Enterprise’s statutory functions” and “Strengthen coordination among NERC, Regional Entities with cross-border footprints, and North American stakeholders in support of ERO Enterprise reliability and security priorities.”

### **Funding Drivers and Reliability Benefits**

- System operators participating in the Seminars: 1) share their 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 “table top 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 two Standards and Compliance workshops in 2020, 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).

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## 2020 Key Assumptions

In addition to the Spring and Fall Standards and Compliance workshops, NPCC regularly conducts System Operators seminars, specifically designed with table top 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, and are held in early May and early November.

## Training, Education and Operator Certification 2020 Goals and Deliverables

- Prepare and conduct the 2020 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 2020 Standards and Compliance workshops addressing the development of NERC and Regional Reliability Standards and the implementation of the Compliance Monitoring and Enforcement Program (CMEP).

Based on the portion of professional/technical staff time and other resources devoted to training, education, and operator certification, NPCC estimates that it will expend 2% of its resources on this activity.

## Resource Requirements

- No significant changes.

## Training, Education, and Operator Certification Program

Funding sources and related expenses for the training, education, and operator certification section of the 2020 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						
2019 Budget & Projection, and 2020 Budget						
Training, Education, and Operator Certification						
	2019	2019	Variance	2020	Variance	
	Budget	Projection	2019 Projection	Budget	2020 Budget	
			v 2019 Budget		v 2019 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 184,943	\$ 184,943	\$ -	\$ 171,524	\$ (13,420)	
Penalty Sanctions	-	-	-	389	389	
<b>Total ERO Funding</b>	<b>\$ 184,943</b>	<b>\$ 184,943</b>	<b>\$ -</b>	<b>\$ 171,912</b>	<b>\$ (13,031)</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	67,500	67,500	-	67,500	-	
Interest & Investment Income	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 252,443</b>	<b>\$ 252,443</b>	<b>\$ -</b>	<b>\$ 239,412</b>	<b>\$ (13,031)</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 18,600	\$ 18,600	\$ -	\$ 11,793	\$ (6,807)	
Payroll Taxes	1,513	1,513	-	939	(575)	
Benefits	6,805	6,805	-	5,652	(1,153)	
Retirement Costs	2,379	2,379	-	1,478	(900)	
<b>Total Personnel Expenses</b>	<b>\$ 29,297</b>	<b>\$ 29,297</b>	<b>\$ -</b>	<b>\$ 19,862</b>	<b>\$ (9,435)</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 189,000	\$ 189,000	\$ -	\$ 185,000	\$ (4,000)	
Travel	15,000	15,000	-	15,000	-	
<b>Total Meeting Expenses</b>	<b>\$ 204,000</b>	<b>\$ 204,000</b>	<b>\$ -</b>	<b>\$ 200,000</b>	<b>\$ (4,000)</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Direct Expenses</b>	<b>\$ 233,297</b>	<b>\$ 233,297</b>	<b>\$ -</b>	<b>\$ 219,862</b>	<b>\$ (13,435)</b>	
<b>Indirect Expenses</b>	<b>\$ 19,431</b>	<b>\$ 19,431</b>	<b>\$ -</b>	<b>\$ 19,000</b>	<b>\$ (431)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 252,728</b>	<b>\$ 252,728</b>	<b>\$ -</b>	<b>\$ 238,862</b>	<b>\$ (13,866)</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (285)</b>	<b>\$ (285)</b>	<b>\$ -</b>	<b>\$ 551</b>	<b>\$ 836</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ (285)</b>	<b>\$ (285)</b>	<b>\$ -</b>	<b>\$ 551</b>	<b>\$ 836</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 252,443</b>	<b>\$ 252,443</b>	<b>\$ -</b>	<b>\$ 239,412</b>	<b>\$ (13,031)</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ 0</b>	

## Situation Awareness and Infrastructure Security Program

<b>Situation Awareness and Infrastructure Security Program Resources</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	5.00	5.40	0.40
Direct Expenses	\$1,409,379	\$1,450,129	\$40,750
Indirect Expenses	\$971,538	\$1,026,001	\$54,463
Other Non-Operating Expenses	\$0	\$0	\$0
Fixed Asset Additions	(\$14,233)	\$29,747	\$43,980
Total Funding Requirement	\$2,366,685	\$2,505,877	\$139,193

### Program Scope and Functional Description

The Situation Awareness and Infrastructure Security 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 Coordinator 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.

These Situation Awareness and Infrastructure Security activities indicated below are done in support of ERO Goal No. 3 “*Reduction of Known Risks to Reliability*” and ERO Goal No. 5 – “*Identification and Reduction of Cyber and Physical Security Risks.*” Related contributing activities to Goal 3 include “Analyzing system performance, events, and relationships among data sources to identify risks and mitigation strategies and provide recommendations and lessons learned, including those that are lower impact, to discover potential reliability trends early in their lifecycles” and “Promoting the use of NERC cause codes to establish a common understanding of HP triggers, collect and evaluate trends in data, and develop metrics as needed.” Contributing activities to Goal 5 include “Working closely with industry, NERC’s Critical Infrastructure Protection Committee (CIPC), governmental agencies, the national labs, industry forums, trade associations and other stakeholders, promote leading security practices, information sharing and analysis, and resilience.”

#### Event Analysis Program Description

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-004-4, “Event Reporting,” can have varying levels of significance to the electric system, providing otherwise unrealized lessons



to be learned from these events and the trending of such events to identify possible reliability concerns. 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.

Upon the identification of an event, the goal of the Event Analysis Program is to:

- identify what transpired;
- categorize the event within the NERC Event Analysis Program;
- establish the sequence of events;
- understand the essential root causes of the event;
- identify recommendations or corrective actions; and,
- develop and disseminate to the industry lessons to be learned, so that the operational reliability of the bulk power system can be further enhanced.

In assessing any system event, it is recognized that, if the timely dissemination of lessons learned from an event is to be realized, any potential compliance implications associated with an event must be addressed and dismissed. Throughout an event analysis effort, to make this process successful and complete, and to solidify the “bottom-up” approach, registered entities are encouraged to establish a liaison between the event analysis and compliance functions internal to the registered entity during the event analysis process. This serves to facilitate the development of a registered entity compliance self-assessment report, which is accomplished by performing a sufficiency review of the reliability standards deemed applicable to the event, assisting in the self-reporting of possible violations should any be discovered.

To complete this voluntary effort, the entity, the Region and NERC staff will collaborate to assess the NERC Brief Report or Event Analysis Report and perform a formal cause code analysis, identifying a root cause and publish any pertinent lessons learned gathered from the event.

The adoption by NERC of the Event Analysis Program brings clarity and certainty about what system events are relevant to analyze and to what level of detail, targeting potential risks to the reliability of the bulk power system for a more detailed and in-depth analysis. Consistent with risk-based approach, only concise and succinct reviews are desired for more minor events. ERO EAP delineates the expectations, roles and responsibilities of the registered entities, NPCC and NERC in a uniform review of system events by the industry and promotes a timely development and dissemination of valuable lessons learned to the industry. The identification and tracking of emerging common risks through the assessment of events will further distinguish trends, which may be of concern to reliability. By rigorously pursuing analysis of the lesser events on the system, learning from these events and developing recommendations, risk of larger events can be mitigated.

NPCC staff works step-by-step with the registered entity throughout the total event analysis process, permitting the entity to assume the primary role in the development of the initial event analysis, lessons learned, which may benefit the industry, along with assisting and overseeing the Standards sufficiency review and cause coding process for trending and reporting. NPCC staff, throughout the process, guides, supports and stands as an advocate of the registered entity as they continue to develop an improved culture of reliability and compliance.

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## 2020 Key Assumptions

- The monitoring of Lessons Learned will continue to be a major focus of NERC and NPCC in 2020, including:
  - continued reporting, for applicable qualifying events in the voluntary Event Analysis Program, of more detailed information on station equipment failure, per recommendation of the AC Substation Equipment Task Force, to solicit and collect this data, to aid in future analysis of station equipment failures and to identify trends that may be a threat to the reliability of the Bulk Electric System,
  - Introduction of a new EAP categories, implemented to capture the effect of “non-consequential” loss of inverter type resources and similarly DC ties between two separate asynchronous systems,
  - 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.
- NERC will post updates to the Critical Infrastructure Protection Standards to address the outstanding FERC Directives and the remaining industry concerns that were not satisfactorily responded to by the version 5 Transition Advisory Group, including:
  - The new CIP-008 reporting requirements
  - The supply chain standards, which become mandatory July 2020
  - CIP modification SDT effort on virtualization
  - Updates to CIP-002 and CIP-003
- TFIST will address cloud computing initiatives, through technical consensus comments and ballot recommendations, specifically on the topics of:
  - Cloud computing work on BES Cyber Systems Information updates to CIP-004 and CIP-011
  - Continued evaluation of coordination between CIP standards and Federal Risk and Authorization Management Program (FedRAMP) - an assessment and authorization process which U.S. federal agencies have been directed by the Office of Management and Budget to ensure security is in place when accessing cloud computing products and services
- Resource allocation to this program area will support expanded Events Analysis activities; coordination with NERC’s evolving E-ISAC capabilities; and physical and cyber security outreach efforts.

## Situation Awareness 2020 Goals and Deliverables

- NPCC will provide the Regional perspective and support through NPCC Event Analysis staff participation on selective NERC Technical Committees and key related NERC Subcommittees, Task Forces and Working Groups, including the Event Analysis Subcommittee, the ERO – Event Analysis/Situational Awareness Group; and utilization of The Event Analysis Management System (TEAMS).
- 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.
- Promote NPCC’s Event Analysis group’s process for sharing and dissemination of the detailed Event Analysis Report information among industry participants (Registered Entities).
- Incorporate the Lessons Learned from participation in the GridEx V wide-area exercise.

- 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. Notify the Reliability Coordinators of significant bulk power system events that have occurred in one Reliability Coordinator Area, and which have the potential to impact reliability in other NPCC Reliability Coordinator Areas or Regions external to 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.
- Conduct a daily conference call to serve as a complement to the NPCC Emergency Preparedness Conference Call. The participants of the call are the Reliability Coordinators within NPCC and its neighboring RCs, the Midcontinent ISO and PJM. The conference call is implemented through a bridge, the initiation of the call quickly ringing all pre-selected telephones simultaneously. The goal of the call is to alert all Reliability Coordinators of emerging problems. If no system difficulties are anticipated for the day, no unnecessary information is to be discussed. Subjects for discussion are limited to credible events which could impact the ability of an entity to serve its load and meet its operating reserve obligations or would impose a burden to the interconnection, including the following: Projected Load; Adverse Weather; Operating Reserve; Generation; Transmission; and Sabotage. If conditions worsen in the course of the day, the NPCC Emergency Preparedness Conference Call will be implemented.
- Monthly test of the satellite telephone network, to ensure the capability for continued voice communications among NPCC and its Reliability Coordinators. This back-up communications system will function in the event of a collapse of the Public Switched Telephone Network, permitting continued cross-border voice communications among the Canadian Reliability Coordinators of NPCC, the Reliability Coordinators in the United States as well as NPCC Situation Awareness staff.
- Coordination and communication with the NERC Bulk Power System Awareness group in preparation for and during ongoing significant events in the NPCC's footprint and participation in the ERO Enterprise-wide Situation Awareness activities. Monitor the status of the bulk power system through the NERC Situational Awareness-FERC, NERC, Regions version 3 (SAFNRv3) tool, a near real-time operating display for the United States portion of the Reliability Coordinators footprints of North America, an enhanced visualization tool, providing more timely and accurate assessments of current conditions affecting the BPS, thus enabling NERC's and Regions' obligation to maintain situational awareness and facilitation of timely communications and collaboration with key stakeholders .

### **Infrastructure Security Objectives**

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 Critical Infrastructure Protection Committee; 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 objectives and support the ERO Enterprise contributing activity of "Working closely with industry, NERC's Critical Infrastructure Protection Committee (CIPC), governmental agencies, the national labs, industry forums, trade associations and other stakeholders, promote leading

security practices, information sharing and analysis, and resilience.” 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.

NPCC’s 2020 infrastructure security goals and objectives, support ERO Goal No. 5 – *“Identification and Reduction of Cyber and Physical Risks.”* Related contributing activities to this Goal include “Expand the use, availability, and value of physical security and cybersecurity threat and vulnerability information sharing, including cross sector communications, and analytics” and “Leverage engagement with registered entities to encourage effective security practices and controls.”

### **Infrastructure Security 2020 Goals and Deliverables**

- Monitor the reliable implementation of the Cyber Security Standards.
- Monitor the Homeland Security Information Network, E- ISAC, NERC Alerts and Canadian Information Sharing and share information with the NPCC CO-8 Working Group, NPCC PSWG and NPCC members’ cyber security experts.
- 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.
- Conduct an annual review of cross border emergency telecommunications to verify each Area can communicate with each other.
- Provide support and technical input for Task Force related Bulk Electric System risks as identified by the NERC Reliability Issues Steering Committee. TFIST and PSWG will conduct a thorough review, provide comments as necessary and act on posted materials as directed and applicable.
- Support the NERC CIPC Grid Exercise Working Group in GridEx VI planning and simulation.
- Review infrastructure security & technologies and provide recommendations to enhance physical and cyber security in compliance with NERC guidelines/standards.
- Provide recommendations 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 Members 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.

**Related System Operations Security 2020 Goals and Deliverables**

NPCC's system operations security objectives are defined within the scope of the NPCC Task Force on Coordination of Operation and include, but are not limited to:

- Coordinating inter-Regional pre-emergency actions in the event of a threat to the security of the Northeastern North American bulk power supply system; and,
- Assisting in the development of real time operating tools ensuring cyber security concerns are addressed.

Based on the portion of professional/technical staff time and other resources devoted to situation awareness and infrastructure security, NPCC estimates that it will expend 15% of its resources on this activity.

**Resource Requirements****Personnel**

- Increase of 0.40 FTE represents reallocation of staff to address shift in focus areas.

## Situation Awareness and Infrastructure Security Program

Funding sources and related expenses for the situation awareness and infrastructure security section of the 2020 business plan are shown in the table below. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

<b>Statement of Activities and Capital Expenditures</b>						
<b>2019 Budget &amp; Projection, and 2020 Budget</b>						
<b>Situation Awareness and Infrastructure Security</b>						
				Variance		Variance
	2019	2019	2019 Projection	2020	2020	
	Budget	Projection	v 2019 Budget	Budget	Budget	
			Over(Under)			Over(Under)
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ 2,366,685	\$ 2,366,685	\$ -	\$ 2,484,879	\$ 118,195	
Penalty Sanctions	-	-	-	20,998	20,998	
<b>Total ERO Funding</b>	<b>\$ 2,366,685</b>	<b>\$ 2,366,685</b>	<b>\$ -</b>	<b>\$ 2,505,877</b>	<b>\$ 139,193</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	-	-	
<b>Total Funding (A)</b>	<b>\$ 2,366,685</b>	<b>\$ 2,366,685</b>	<b>\$ -</b>	<b>\$ 2,505,877</b>	<b>\$ 139,193</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 832,408	\$ 832,408	\$ -	\$ 924,110	\$ 91,702	
Payroll Taxes	57,432	57,432	-	61,713	4,281	
Benefits	201,196	201,196	-	202,020	824	
Retirement Costs	89,043	89,043	-	99,986	10,943	
<b>Total Personnel Expenses</b>	<b>\$ 1,180,079</b>	<b>\$ 1,180,079</b>	<b>\$ -</b>	<b>\$ 1,287,829</b>	<b>\$ 107,750</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 10,000	\$ 10,000	\$ -	\$ 8,000	\$ (2,000)	
Travel	89,300	89,300	-	94,300	5,000	
<b>Total Meeting Expenses</b>	<b>\$ 99,300</b>	<b>\$ 99,300</b>	<b>\$ -</b>	<b>\$ 102,300</b>	<b>\$ 3,000</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 130,000	\$ 130,000	\$ -	\$ 60,000	\$ (70,000)	
Office Rent	-	-	-	-	-	
Office Costs	-	-	-	-	-	
Professional Services	-	-	-	-	-	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	-	-	-	-	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 130,000</b>	<b>\$ 130,000</b>	<b>\$ -</b>	<b>\$ 60,000</b>	<b>\$ (70,000)</b>	
<b>Total Direct Expenses</b>	<b>\$ 1,409,379</b>	<b>\$ 1,409,379</b>	<b>\$ -</b>	<b>\$ 1,450,129</b>	<b>\$ 40,750</b>	
<b>Indirect Expenses</b>	<b>\$ 971,538</b>	<b>\$ 971,538</b>	<b>\$ -</b>	<b>\$ 1,026,001</b>	<b>\$ 54,463</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 2,380,918</b>	<b>\$ 2,380,918</b>	<b>\$ -</b>	<b>\$ 2,476,130</b>	<b>\$ 95,212</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (14,233)</b>	<b>\$ (14,233)</b>	<b>\$ -</b>	<b>\$ 29,747</b>	<b>\$ 43,980</b>	
<b>Total Funding (A) Requirement</b>	<b>\$ 2,395,151</b>	<b>\$ 2,395,151</b>	<b>\$ -</b>	<b>\$ 2,446,383</b>	<b>\$ 51,232</b>	
<b>Fixed Asset Additions</b>						
Computer & Software CapEx	-	-	-	-	-	
Furniture & Fixtures CapEx	-	-	-	-	-	
Equipment CapEx	-	-	-	-	-	
Leasehold Improvements	-	-	-	-	-	
Allocation of Fixed Assets	(14,233)	(14,233)	-	29,747	43,980	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>(14,233)</b>	<b>(14,233)</b>	<b>-</b>	<b>29,747</b>	<b>43,980</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>2,366,685</b>	<b>2,366,685</b>	<b>-</b>	<b>2,505,877</b>	<b>139,193</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ 0</b>	<b>\$ 0</b>	

## Administrative Services

Administrative Services Program Resources						
(in whole dollars)						
	Direct Expenses			FTEs		
	2019 Budget	2020 Budget	Increase (Decrease)	2019 Budget	2020 Budget	Increase (Decrease)
Technical Committees and Members Forum	\$74,483	\$75,793	\$1,310	0.50	0.50	0.00
General and Administrative <sup>2</sup>	\$3,391,903	\$3,874,453	\$482,550	2.50	2.73	0.23
Legal and Regulatory	\$612,934	\$761,007	\$148,073	1.00	2.00	1.00
Information Technology	\$1,083,781	\$1,144,119	\$60,339	2.00	2.00	0.00
Human Resources	\$156,946	\$158,731	\$1,785	1.00	1.00	0.00
Finance and Accounting	\$642,798	\$703,291	\$60,493	2.00	2.00	0.00
<b>Total Administrative Services<sup>1</sup></b>	<b>\$5,962,845</b>	<b>\$6,717,395</b>	<b>\$754,550</b>	<b>9.00</b>	<b>10.23</b>	<b>1.23</b>

<sup>1</sup> NPCC's 2020 Administrative Services Direct Expenses and Fixed Assets total \$6,717,395, of which \$409,450 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 2020 statutory budget are \$6,307,945 which is an increase of \$760,918 from the 2019 budget of \$5,547,027.

<sup>2</sup> Succession implementation costs of \$444,540 included in General and Administrative Direct Expenses will be funded from Board approved Business Continuity Reserves and will not impact assessments.

### 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 2020 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						
2019 Budget & Projection, and 2020 Budget						
ADMINISTRATIVE SERVICES						
	2019	2019	Variance	2020	Variance	
	Budget	Projection	2019 Projection	Budget	2020 Budget	
			v 2019 Budget		v 2019 Budget	
			Over(Under)		Over(Under)	
<b>Funding</b>						
<b>ERO Funding</b>						
ERO Assessments	\$ (100,108)	\$ (100,108)	\$ -	\$ (625,856)	\$ (525,748)	
Penalty Sanctions	-	-	-	-	-	
<b>Total ERO Funding</b>	<b>\$ (100,108)</b>	<b>\$ (100,108)</b>	<b>\$ -</b>	<b>\$ (625,856)</b>	<b>\$ (525,748)</b>	
Membership Dues	-	-	-	-	-	
Testing Fees	-	-	-	-	-	
Services & Software	-	-	-	-	-	
Workshops & Misc Revenue	-	-	-	-	-	
Interest & Investment Income	-	-	-	55,800	55,800	
<b>Total Funding (A)</b>	<b>\$ (100,108)</b>	<b>\$ (100,108)</b>	<b>\$ -</b>	<b>\$ (570,056)</b>	<b>\$ (469,948)</b>	
<b>Expenses</b>						
<b>Personnel Expenses</b>						
Salaries	\$ 2,147,254	\$ 2,126,254	\$ (21,000)	\$ 2,433,049	\$ 285,794	
Payroll Taxes	107,437	105,437	(2,000)	126,595	19,158	
Benefits	493,115	478,115	(15,000)	674,649	181,534	
Retirement Costs	296,142	294,142	(2,000)	313,571	17,429	
<b>Total Personnel Expenses</b>	<b>\$ 3,043,948</b>	<b>\$ 3,003,948</b>	<b>\$ (40,000)</b>	<b>\$ 3,547,864</b>	<b>\$ 503,916</b>	
<b>Meeting Expenses</b>						
Meetings & Conference Calls	\$ 162,750	\$ 162,750	\$ -	\$ 162,750	\$ -	
Travel	135,100	135,100	-	129,100	(6,000)	
<b>Total Meeting Expenses</b>	<b>\$ 297,850</b>	<b>\$ 297,850</b>	<b>\$ -</b>	<b>\$ 291,850</b>	<b>\$ (6,000)</b>	
<b>Operating Expenses, excluding Depreciation</b>						
Consultants & Contracts	\$ 95,000	\$ 95,000	\$ -	\$ 361,000	\$ 266,000	
Office Rent	820,700	820,700	-	832,700	12,000	
Office Costs	676,347	676,347	-	685,981	9,634	
Professional Services	978,000	978,000	-	947,000	(31,000)	
Computer & Equipment Leases	-	-	-	-	-	
Miscellaneous	51,000	51,000	-	51,000	-	
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 2,621,047</b>	<b>\$ 2,621,047</b>	<b>\$ -</b>	<b>\$ 2,877,681</b>	<b>\$ 256,634</b>	
<b>Total Direct Expenses</b>	<b>\$ 5,962,845</b>	<b>\$ 5,922,845</b>	<b>\$ (40,000)</b>	<b>\$ 6,717,395</b>	<b>\$ 754,550</b>	
<b>Indirect Expenses</b>	<b>\$ (5,962,845)</b>	<b>\$ (5,922,845)</b>	<b>\$ 40,000</b>	<b>\$ (6,272,855)</b>	<b>\$ (310,010)</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ 444,540</b>	<b>\$ 444,540</b>	
<b>Change in Net Assets (=A-B)</b>	<b>\$ (100,108)</b>	<b>\$ (100,108)</b>	<b>\$ 0</b>	<b>\$ (1,014,596)</b>	<b>\$ (914,488)</b>	
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (255,000)</b>	
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ 444,540</b>	<b>\$ 189,540</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (100,108)</b>	<b>\$ (100,108)</b>	<b>\$ 0</b>	<b>\$ (1,014,596)</b>	<b>\$ (659,488)</b>	



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## 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.

### 2020 Key Assumptions

- NPCC’s standing committee and subgroup structure for effective stakeholder involvement will continue in 2020.
- 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 2020.
- NPCC will continue to invest in technology and innovation to allow efficient collaboration on technical issues related to reliability.

The Technical Committees and Member Forums activities indicated below are done in support of ERO Goal No. 4 “*Identification and Assessment of Emerging Risks to Reliability.*” A related contributing activity to this Goal is to “Educate policy makers, regulators, and the industry of reliability effects and interconnection requirements for the changing resource mix.”

### Technical Committees and Member Forums 2020 Goals and Deliverables

- The 2020 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; and,
- 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 the Media Event – release of the Summer 2020 NPCC Reliability Assessment; and,
  - Participation in NERC Regional communication initiatives:
    - Regional communications teleconferences as required
    - Coordination of Emergency or Blackout communications plans
    - Coordination with other NERC activities as required (i.e., situation awareness, event analysis, reliability assessments, etc.)

### Resource Requirements

- No significant changes.

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## 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

- During 2020 an executive search will be conducted in order to identify a successor CEO to transition into that role by vote of the Membership at its Annual Meeting to become effective January 1, 2021. The incumbent President and CEO has identified a planned retirement during the first quarter of 2021. The expectation is that the identified successor will join NPCC by early November or December, 2020 in an executive leadership capacity. Costs related to the executive search efforts and succession plan implementation will be funded from the existing Business Continuity Reserve, identified by the NPCC Board of Directors in 2017 and approved at varying intervals within 2020 by the Board for reserve release. Therefore, 2020 assessments will not be impacted by these succession-related expenses.

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## Legal and Regulatory

### Program Scope and Functional Description

NPCC's professional legal services provide counsel to the President and CEO, Board of Directors, Senior Vice President and COO, Treasurer, General Counsel and staff on a wide range of legal and regulatory matters including legislation, corporate law, code of conduct, confidentiality, governance, employment law, tax matters, contract law and other areas affecting NPCC, consistent with ERO Goal 6. In support of ERO Goal 4, NPCC's in-house counsel evaluates internal controls and corporate, operational, strategic and reputational risk, and participates in risk identification, evaluation and mitigation activities. In-house counsel provides legal advice to advance significant corporate policy and strategic planning initiatives and also provide legal support to other program areas on matters arising in connection with the performance of NPCC's delegated functions. In-house counsel draft agreements and pleadings and provide interpretations of relevant statutes, regulations, court opinions, and regulatory decisions of FERC, state agencies and provincial authorities. Outside counsel, as necessary, reviews items filed with the governmental agencies for legal sufficiency, maintains relationships with U.S. and Canadian jurisdictions and provides contract review.

### Resource Requirements

#### Personnel

- NPCC plans to hire one FTE in the Legal and Regulatory program in 2020. A paralegal/legal assistant will support General Counsel and add to the overall efficiency of the organization. This addition is partially offset by a projected decrease in professional fees.

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## Information Technology

### Program Scope and Functional Description

NPCC's Information Technology services ensure information assets and the environment in which they operate are 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 location is unavailable.

NPCC supports the ERO efforts to implement, operate and maintain software tools supporting common enterprise wide operations and leveraging ERO solutions which have been approved by the ERO Executive Management Group (ERO EMG), 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 2020 Business Plan and Budget assumes agreed-upon ERO Enterprise applications will be available and includes only NPCC costs for Region specific support needs.

### 2020 Key Assumptions

- Continue to maintain the compliance portal through collaboration with other Regional Entities and NERC (CUG), while transitioning to the ERO Enterprise CMEP IT Tool (Align).
- Support the Event Analysis program through continued participation in the tools used for the tracking and analysis of system events and identification of better practice elements.
- Support the Bulk Electric System Exception Process (BEP) to enable and facilitate tracking and processing of exceptions submitted. Maintenance of the BESNET support services such as updates, patching, coordinating issues with NERC.
- Support Cyber Security Reviews done by Compliance to provide advisory role during those reviews.

### 2020 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:

- 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.
- 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**

- NPCC anticipates no need to hire additional personnel in this program area in 2020.

### **Fixed Assets**

- Capital expenditures planned for 2020 include the continuing implementation and enhancement of the document management system 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; training and development; and employee time tracking.

### Resource Requirements

- No significant changes.

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## 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 identified this system as a best practice.

### 2020 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

- No significant changes.

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## 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 2017 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 2018 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. Any penalty monies received from NPCC registered entities within the U.S. prior to June 30<sup>th</sup> of the year preceding the business plan and budget year 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 apportions 20.54% of the costs for the program, attributed to CORC Fundamentals (CF), between the BAAs in the United States and Canada on a NEL basis.

Audits and Investigations (AI) related costs, representing 60.87% of the costs of the compliance program, 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.

The remaining 18.59% of the costs of the compliance program represent 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.

Any penalty monies received from NPCC registered entities within the U.S. by June 30th of the year preceding the business plan and budget year 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 2020 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
(LSE Designees)	2018 Net Energy for Load (MWh)	2018 NPCC US NEL (MWh)	2018 NPCC NEL % of Total	2018 NPCC NEL % of U.S. Only	Associated Costs with U.S. Only Reliability Study	2020 <sup>2</sup> NPCC RE Division Expenses & Fixed Assets Minus CORC	Adjustment to 2020 <sup>2</sup> NPCC Cash Reserve Requirement Less CORC	2020 <sup>2</sup> NPCC RE Division Funding Requirement Minus CORC	Penalty Monies Applied to RE Division	Budgeted Workshop Fees and Interest	2020 <sup>2</sup> NPCC RE Division Assessment Minus CORC (G-1 plus H-1)	2020 NPCC CS Division Expenses Minus Interest Income (K-1 plus L-1)	2020 CS Division Adjustment to CS Division Cash Reserve Requirement	2020 NPCC CS Division Funding Requirement & Member Fees (M-1 plus L-1)
New England	123,472,000	123,472,000	19.905%	43.387%	TBD	1,491,274	-201,954	1,289,321	-21,696	-24,543	1,243,082	227,805	-15,778	212,027
New York	161,114,000	161,114,000	25.973%	56.613%	TBD	1,945,908	-263,522	1,682,386	-28,310	-32,025	1,620,051	297,254	-20,588	276,666
Ontario	137,437,000	137,437,000	22.156%	27.873%		1,659,941	-224,795	1,435,146	0	-27,319	1,407,828	253,570	-17,562	236,008
Quebec	172,900,000	172,900,000	27.873%	27.873%		2,088,258	-282,799	1,805,458	0	-34,368	1,771,091	318,999	-22,094	296,905
New Brunswick	14,077,000	14,077,000	2.269%	2.269%		170,020	-23,025	146,995	0	-2,798	144,197	25,972	-1,799	24,173
Nova Scotia	11,311,000	11,311,000	1.823%	1.823%		136,612	-18,501	118,112	0	-2,248	115,864	20,869	-1,445	19,423
<b>Total</b>	<b>620,311,000</b>	<b>284,586,000</b>	<b>100.000%</b>	<b>100.000%</b>	<b>\$0</b>	<b>\$7,492,014</b>	<b>-\$1,014,596</b>	<b>\$6,477,418</b>	<b>-\$50,006</b>	<b>-\$123,300</b>	<b>\$6,304,112</b>	<b>\$1,144,468</b>	<b>-\$79,265</b>	<b>\$1,065,202</b>

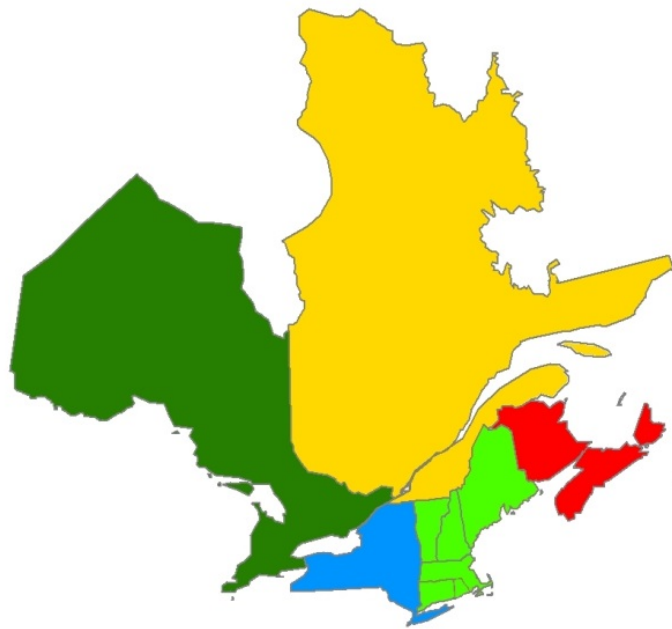
A-2	B-2	C-2	D-2	E-2	F-2	G-2	H-2	I-2	J-2	K-2	L-2	M-2	N
NPCC Balancing Authorities (LSE Designees)	2018 NEL Based Allocation of 20.54% of 2020 CORC Program Fundamentals <sup>3</sup>	2020 Audit and Investigation Allocation Methodology	2020 CORC Audit and Investigation Allocation Methodology	2020 Mitigation and Enforcement Allocation Methodology	2020 CORC Allocation Methodology	2020 Total CORC Program Expenses & Fixed Assets	2020 Penalty Monies Applied to CORC Program	Assigned CORC Program 2018 Actual vs Budget Variance	2020 Total CORC Program Assessment (G-2 plus H-2 plus I-2)	2020 RE Division Total Funding Requirement (G-1 plus G-2 plus I-2)	2020 RE Division Total Assessment (L-1 plus L-2)	2020 NPCC Total Funding Requirement (M-1 plus K-2)	2020 NPCC Total Assessment & Member Fees (M-1 plus L-2)
New England	372,415	44,762%	2,001,117	42.811%	569,943	2,943,475	-30,368	-1,638	2,911,469	4,231,157	41,541,551	4,443,184	4,366,578
New York	483,950	38.416%	2,611,183	34.755%	743,698	3,840,830	-39,626	-2,117	3,799,087	5,521,099	5,421,138	5,797,765	5,697,804
Ontario	414,536	4.466%	247,639	5.378%	91,085	753,259	0	-404	752,856	2,188,002	2,160,683	2,424,009	2,396,691
Quebec	521,499	8.925%	494,893	12.289%	208,119	1,224,511	0	-680	1,223,831	3,029,289	2,994,922	3,326,195	3,291,827
New Brunswick	42,459	1.781%	98,779	4.262%	72,185	213,422	0	-93	213,229	360,324	357,526	384,497	381,699
Nova Scotia	34,116	1.650%	91,486	0.504%	8,535	134,137	0	-83	134,054	252,165	249,917	271,589	269,340
<b>Total</b>	<b>\$1,870,974</b>	<b>83.178%</b>	<b>\$4,612,299</b>	<b>100.000%</b>	<b>\$1,313,641</b>	<b>\$9,109,633</b>	<b>-\$69,994</b>	<b>-\$5,015</b>	<b>\$9,044,625</b>	<b>\$15,582,037</b>	<b>\$15,338,737</b>	<b>\$16,647,229</b>	<b>\$16,403,939</b>

1 Any sub-regional reliability assessment costs in response to U.S. only regulatory initiatives will be considered for allocation to U.S. only BAs consistent with NERC Rules of Procedure section 1102.  
 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 CORC Program Fundamentals expenses of \$1,870,974 represent 20.34% of the Total CORC Program Costs and are allocated using the Regional NEL based methodology.  
 4 Audit and Investigation expenses of \$5,545,096 represent 60.87% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an audit based methodology. The portion of 83.178% 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 ratios in C-1a are applied to the 83.178% of U.S. audit costs to obtain the percentages in Column C-2 b) which are then applied to the 60.87% of CORC costs. Audit based allocation uses Compliance Registry Data registrants as of May 1, 2019.  
 5 Mitigation and Enforcement expenses of \$1,693,564 represent 18.59% of the Total CORC Program Costs. The Canadian costs are allocated utilizing an enforcement activity based methodology. The portion of 77.567% 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 ratios in C-1a are applied to the 77.567% of U.S. enforcement costs to obtain the percentages in Column E-2 b) which are then applied to the 18.59% of CORC costs.

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## Section B — Supplemental Financial Information 2020 Business Plan and Budget

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## Section B – Supplemental Financial Information

## Reserve Balance

Table B-1 Reserve Balance

Working Capital and Operating Reserve Analysis 2019-2020				
REGIONAL ENTITY DIVISION				
	Total Reserve	Operating Reserve	Working Capital	Business Continuity
<b>Beginning Total Reserve, December 31, 2018</b>	4,974,092	2,717,154	1,316,938	940,000
Plus: 2019 ERO Funding (from LSEs or designees)	15,003,411	15,003,411		
Plus: 2019 Other funding sources	67,500	67,500		
Less: 2019 Projected expenses & capital expenditures	(15,618,891)	(15,618,891)		
<b>Projected Total Reserve, December 31, 2019</b>	<b>4,426,112</b>	<b>2,169,174</b>	<b>1,316,938</b>	<b>940,000</b>
<b>Desired Total Reserve, December 31, 2020</b>	<b>3,406,501</b>	1,527,626 <sup>1</sup>	1,383,415 <sup>2</sup>	495,460 <sup>3</sup>
Less: Projected Total Reserve, December 31, 2019	(4,426,112)	(2,169,174)	(1,316,938)	(940,000)
<b>Increase(decrease) in assessments to achieve desired Total Reserve</b>	<b>(1,019,611)</b>	<b>(641,548)</b>	<b>66,477</b>	<b>(444,540)</b>
2020 Expenses and Capital Expenditures	16,601,647			
Less: Penalty Sanctions <sup>4</sup>	(120,000)			
Less: Other Funding Sources	(123,300)			
Less: Release of Business Continuity Reserve Funds <sup>3</sup>	(444,540)			
Adjustment to Working Capital to achieve desired Total Reserve balance <sup>2</sup>	66,477			
Adjustment to Operating Reserve to achieve desired Total Reserve balance <sup>1</sup>	(641,548)			
<b>2020 Assessment</b>	<b>15,338,737</b>			

<sup>1</sup> Operating Reserve within a range from 8.33% to 25.00% of Budget. \$1,527,626 represents 9.20% of the 2020 budget of \$16,601,647

<sup>2</sup> Working Capital equal to 8.33% of Budget. \$1,383,415 represents 8.33% of the 2020 budget of \$16,601,647

<sup>3</sup> Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

<sup>4</sup> Represents collections July 1, 2018 to June 30, 2019.

## 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 succession related activities associated with the planned or a sudden retirement, as well as other sudden changing workforce staffing requirements which could be brought about by coincident multiple staff retirements.

## Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the Regional Entity division Statement of Activities on page 13 of the 2020 Business Plan and Budget. All significant variances have been disclosed by program area in the preceding pages.

### Penalty Sanctions

U.S. penalty monies received prior to June 30, 2019 are to be used to offset assessments in the 2020 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, 2018 through June 30, 2019 are listed below. Penalty monies received from July 1, 2019 through June 30, 2020 will be used to offset U.S. load serving entity designee assessments in the 2021 Budget.

Allocation Method: U.S. penalty sanctions received have been 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, 2019	Date Received	Amount Received
	7/16/2018	\$ 120,000.00
<b>Total Penalties Received</b>		<b>\$ 120,000.00</b>

Table B-3 Supplemental Funding

Outside Funding Breakdown By Program (excluding ERO Assessments & Penalty Sanctions)	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget
<b>Reliability Standards</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Reliability Assessment and Performance Analysis</b>				
	\$ -	\$ -	\$ -	\$ -
	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Training and Education</b>				
Workshops	\$ 67,500	\$ 67,500	\$ 67,500	\$ -
<b>Total</b>	\$ 67,500	\$ 67,500	\$ 67,500	\$ -
<b>Situation Awareness and Infrastructure Security</b>				
	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Technical Committees and Member Forums</b>				
	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Administrative Services Programs</b>				
Interest & Investment Income	\$ -	\$ -	\$ 55,800	\$ 55,800
<b>Total</b>	\$ -	\$ -	\$ 55,800	\$ 55,800
<b>Total Outside Funding</b>	\$ 67,500	\$ 67,500	\$ 123,300	\$ 55,800

### Explanation of Significant Variances –2020 Budget versus 2019 Budget

- NPCC estimates interest & investment income of \$55,800 in 2020 from investment of reserves in a 100% U.S. Treasury money market fund, which will offset 2020 assessments.

Table B-4 Personnel Expenses

Personnel Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
<b>Salaries</b>					
Salary	\$ 7,298,280	\$ 7,298,280	\$ 7,664,262	\$ 365,982	5.0%
Employment Agency Fees	\$ 10,000	\$ 10,000	\$ 16,000	\$ 6,000	60.0%
Temporary Office Services	\$ 24,000	\$ 24,000	\$ 24,000	\$ -	0.0%
<b>Total Salaries</b>	<b>\$ 7,332,280</b>	<b>\$ 7,332,280</b>	<b>\$ 7,704,262</b>	<b>\$ 371,982</b>	<b>5.1%</b>
<b>Total Payroll Taxes</b>	<b>\$ 449,994</b>	<b>\$ 449,994</b>	<b>\$ 479,019</b>	<b>\$ 29,026</b>	<b>6.5%</b>
<b>Benefits</b>					
Education Reimbursement	\$ 32,000	\$ 32,000	\$ 27,500	\$ (4,500)	-14.1%
Training and Seminars	\$ 58,290	\$ 58,290	\$ 83,580	\$ 25,290	43.4%
Medical Insurance	\$ 901,783	\$ 901,783	\$ 1,168,854	\$ 267,071	29.6%
Life-LTD-STD Insurance	\$ 94,804	\$ 94,804	\$ 110,889	\$ 16,085	17.0%
Worker's Compensation	\$ 20,000	\$ 20,000	\$ 32,000	\$ 12,000	60.0%
Vacation	\$ 506,201	\$ 506,201	\$ 504,062	\$ (2,139)	-0.4%
Relocation	\$ -	\$ -	\$ -	\$ -	-
<b>Total Benefits</b>	<b>\$ 1,613,078</b>	<b>\$ 1,613,078</b>	<b>\$ 1,926,885</b>	<b>\$ 313,806</b>	<b>19.5%</b>
<b>Retirement</b>					
Pension Contribution	\$ -	\$ -	\$ -	\$ -	-
Employee Savings Plan	\$ 741,511	\$ 741,511	\$ 770,950	\$ 29,440	4.0%
Savings Admin	\$ 36,000	\$ 36,000	\$ 36,000	\$ -	0.0%
Deferred Compensation	\$ 76,000	\$ 76,000	\$ 76,000	\$ -	0.0%
<b>Total Retirement</b>	<b>\$ 853,511</b>	<b>\$ 853,511</b>	<b>\$ 882,950</b>	<b>\$ 29,440</b>	<b>3.4%</b>
<b>Total Personnel Costs</b>	<b>\$ 10,248,862</b>	<b>\$ 10,248,862</b>	<b>\$ 10,993,117</b>	<b>\$ 744,254</b>	<b>7.3%</b>
<b>FTEs</b>	<b>38.86</b>	<b>38.86</b>	<b>41.09</b>	<b>2.23</b>	<b>5.7%</b>
<b>Cost per FTE</b>					
Salaries	\$ 188,685	\$ 188,685	\$ 187,497	\$ (1,187)	-0.6%
Payroll Taxes	\$ 11,580	\$ 11,580	\$ 11,658	\$ 78	0.7%
Benefits	\$ 41,510	\$ 41,510	\$ 46,894	\$ 5,384	13.0%
Retirement	\$ 21,964	\$ 21,964	\$ 21,488	\$ (476)	-2.2%
<b>Total Cost per FTE</b>	<b>\$ 263,738</b>	<b>\$ 263,738</b>	<b>\$ 267,538</b>	<b>\$ 3,799</b>	<b>1.4%</b>

### Explanation of Significant Variances –2020 Budget versus 2019 Budget

- Increase in Training and Seminars is due to an increase per employee training budget.
- Medical insurance increase reflects a premium increase of 8%. Additionally, fewer employees are waiving NPCC coverage for that of a prior employer.
- Personnel expenses include some succession planning related costs that will be funded through business continuity reserves and do not impact assessments.

Table B-5 Meeting Expense

Meeting Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Meetings	\$ 370,750	\$ 370,750	\$ 361,750	\$ (9,000)	-2.4%
Travel	\$ 845,900	\$ 845,900	\$ 845,900	\$ -	0.0%
Conference Calls	\$ 36,000	\$ 36,000	\$ 36,000	\$ -	0.0%
<b>Total Meeting Expenses</b>	<b>\$ 1,252,650</b>	<b>\$ 1,252,650</b>	<b>\$ 1,243,650</b>	<b>\$ (9,000)</b>	<b>-0.7%</b>

## Explanation of Significant Variances – 2020 Budget versus 2019 Budget

- No significant variances.

Table B-6 Consultants and Contracts

Consultants	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
<b>Consultants</b>					
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	\$ -	\$ -	\$ 279,000	\$ 279,000	-
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ -	\$ -	\$ -	\$ -	-
<b>Consultants Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 279,000</b>	<b>\$ 279,000</b>	<b>-</b>
Contracts	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Reliability Standards	\$ 10,000	\$ 10,000	\$ 20,000	\$ 10,000	100.0%
Compliance Enforcement and Organization Registration and Certification	\$ 1,357,150	\$ 1,357,150	\$ 1,097,150	\$ (260,000)	-19.2%
Reliability Assessment and Performance Analysis	\$ 430,000	\$ 430,000	\$ 533,000	\$ 103,000	24.0%
Training and Education	\$ -	\$ -	\$ -	\$ -	-
Situation Awareness and Infrastructure Security	\$ 130,000	\$ 130,000	\$ 60,000	\$ (70,000)	-53.8%
Member Forums	\$ -	\$ -	\$ -	\$ -	-
General and Administrative	\$ 88,000	\$ 88,000	\$ 75,000	\$ (13,000)	-14.8%
Legal and Regulatory	\$ -	\$ -	\$ -	\$ -	-
Information Technology	\$ -	\$ -	\$ -	\$ -	-
Human Resources	\$ -	\$ -	\$ -	\$ -	-
Accounting and Finance	\$ 7,000	\$ 7,000	\$ 7,000	\$ -	0.0%
<b>Contracts Total</b>	<b>\$ 2,022,150</b>	<b>\$ 2,022,150</b>	<b>\$ 1,792,150</b>	<b>\$ (230,000)</b>	<b>-11.4%</b>
<b>Total Consultants and Contracts</b>	<b>\$ 2,022,150</b>	<b>\$ 2,022,150</b>	<b>\$ 2,071,150</b>	<b>\$ 49,000</b>	<b>2.4%</b>

## Explanation of Significant Variances –2020 Budget versus 2019 Budget

- General and Administrative - During 2020 an executive search will be conducted in order to identify a successor CEO. Consulting costs related to the search efforts will be funded from the existing Business Continuity Reserves. 2020 assessments will not be impacted by these succession-related expenses.
- Ongoing effort to decrease the use of consultants and contractors when possible. (See program area sections for detail regarding a specific program area.)



Table B-7 Office Rent

Office Rent	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Office Rent	\$ 650,000	\$ 650,000	\$ 650,000	\$ -	0.0%
Utilities	\$ 45,000	\$ 45,000	\$ 47,000	\$ 2,000	4.4%
Maintenance	\$ 37,000	\$ 37,000	\$ 37,000	\$ -	0.0%
Security	\$ 2,700	\$ 2,700	\$ 2,700	\$ -	0.0%
Real Estate Taxes	\$ 86,000	\$ 86,000	\$ 96,000	\$ 10,000	11.6%
<b>Total Office Rent</b>	<b>\$ 820,700</b>	<b>\$ 820,700</b>	<b>\$ 832,700</b>	<b>\$ 12,000</b>	<b>1.5%</b>

## Explanation of Significant Variances –2020 Budget versus 2019 Budget

- No significant variances.

Table B-8 Office Costs

Office Costs	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Telephone	\$ 88,720	\$ 88,720	\$ 88,720	\$ -	0.0%
Internet Expense	\$ 82,740	\$ 82,740	\$ 74,340	\$ (8,400)	-10.2%
Office Supplies	\$ 33,000	\$ 33,000	\$ 33,000	\$ -	0.0%
Computer Supplies and Maintenance	\$ 397,387	\$ 397,387	\$ 424,921	\$ 27,534	6.9%
Subscriptions & Publications	\$ 13,500	\$ 13,500	\$ 14,000	\$ 500	3.7%
Dues	\$ 3,400	\$ 3,400	\$ 3,400	\$ -	0.0%
Postage	\$ 1,200	\$ 1,200	\$ 1,200	\$ -	0.0%
Express Shipping	\$ 10,000	\$ 10,000	\$ 6,000	\$ (4,000)	-40.0%
Copying	\$ 26,400	\$ 26,400	\$ 26,400	\$ -	0.0%
Reports	\$ 8,000	\$ 8,000	\$ 2,000	\$ (6,000)	-75.0%
Stationary and Office Forms	\$ 2,000	\$ 2,000	\$ 2,000	\$ -	0.0%
Equipment Repair/Service Contracts	\$ -	\$ -	\$ -	\$ -	-
Bank Charges	\$ 10,000	\$ 10,000	\$ 10,000	\$ -	0.0%
Sales and Use Tax	\$ -	\$ -	\$ -	\$ -	-
Merchant Credit Card Fees	\$ -	\$ -	\$ -	\$ -	-
Presentation and Publicity	\$ -	\$ -	\$ -	\$ -	-
<b>Total Office Costs</b>	<b>\$ 676,347</b>	<b>\$ 676,347</b>	<b>\$ 685,981</b>	<b>\$ 9,634</b>	<b>1.4%</b>

## Explanation of Significant Variances –2020 Budget versus 2019 Budget

- Total Office costs are expected to remain relatively flat.

Table B-9 Professional Services

Professional Services	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
BOT Fee	\$ 346,000	\$ 346,000	\$ 332,000	\$ (14,000)	-4.0%
BOT Search Fee	\$ -	\$ -	\$ -	\$ -	-
Legal - Reorganization	\$ -	\$ -	\$ -	\$ -	-
Accounting & Auditing Fees	\$ 300,000	\$ 300,000	\$ 310,000	\$ 10,000	3.3%
Legal Fees - Other	\$ 262,000	\$ 262,000	\$ 235,000	\$ (27,000)	-10.3%
Insurance - Commercial	\$ 70,000	\$ 70,000	\$ 70,000	\$ -	0.0%
<b>Total Services</b>	<b>\$ 978,000</b>	<b>\$ 978,000</b>	<b>\$ 947,000</b>	<b>\$ (31,000)</b>	<b>-3.2%</b>

Table B-10 Miscellaneous

Miscellaneous Expense	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Miscellaneous Expense	\$ 51,000	\$ 51,000	\$ 51,000	\$ -	0.0%
<b>Total Miscellaneous Expense</b>	<b>\$ 51,000</b>	<b>\$ 51,000</b>	<b>\$ 51,000</b>	<b>\$ -</b>	<b>0.0%</b>

Table B-11 Other Non-Operating Expenses

Other Non-Operating Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Office Relocation	\$ -	\$ -	\$ -	\$ -	-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

Table B-12 Fixed Assets

Fixed Asset Additions	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Equipment CapEx	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	\$ 170,000	\$ 170,000	\$ 170,000	\$ -	0.0%
Furniture & Fixtures CapEx	\$ -	\$ -	\$ -	\$ -	-
Leasehold Improvements	\$ -	\$ -	\$ -	\$ -	-
Allocation of Fixed Assets	\$ -	\$ -	\$ -	\$ -	-
<b>Total Fixed Asset Additions</b>	<b>\$ 170,000</b>	<b>\$ 170,000</b>	<b>\$ 170,000</b>	<b>\$ -</b>	<b>0.0%</b>

### Explanation of Significant Variances –2020 Budget versus 2019 Budget

- Capital expenditures planned for 2020 include the continuing implementation of the document management system and equipment upgrades.

Table B-13

Statement of Activities and Capital Expenditures 2020 Budget & Projected 2021 and 2022 Budgets							
	2020 Budget	2021 Projection	\$ Change 20 v 21	% Change 20 v 21	2022 Projection	\$ Change 21 v 22	% Change 21 v 22
<b>Funding</b>							
<b>ERO Funding</b>							
ERO Assessments	\$ 15,338,737	\$ 15,762,784	\$ 424,048	2.8%	\$ 16,206,361	\$ 443,577	2.7%
Penalty Sanctions	120,000	-	(120,000)	-100.0%	-	-	
<b>Total ERO Funding</b>	<b>\$ 15,458,737</b>	<b>\$ 15,762,784</b>	<b>\$ 304,048</b>	<b>2.0%</b>	<b>\$ 16,206,361</b>	<b>\$ 443,577</b>	<b>2.7%</b>
Membership Dues	-	-	-	-	-	-	
Testing Fees	-	-	-	-	-	-	
Services & Software	-	-	-	-	-	-	
Workshops & Miscellaneous	67,500	67,500	-	0.0%	67,500	-	0.0%
Interest & Investment Income	55,800	58,590	2,790	5.0%	61,520	2,930	5.0%
<b>Total Funding (A)</b>	<b>\$ 15,582,037</b>	<b>\$ 15,888,874</b>	<b>\$ 306,838</b>	<b>2.0%</b>	<b>\$ 16,335,381</b>	<b>\$ 446,506</b>	<b>2.8%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 7,704,262	\$ 7,935,390	\$ 231,128	3.0%	\$ 8,173,452	\$ 238,062	3.0%
Payroll Taxes	479,019	493,390	14,371	3.0%	508,192	14,802	3.0%
Benefits	1,943,385	2,098,855	155,471	8.0%	2,266,764	167,908	8.0%
Retirement Costs	882,950	909,439	26,489	3.0%	936,722	27,283	3.0%
<b>Total Personnel Expenses</b>	<b>\$ 11,009,617</b>	<b>\$ 11,437,074</b>	<b>\$ 427,458</b>	<b>3.9%</b>	<b>\$ 11,885,129</b>	<b>\$ 448,055</b>	<b>3.9%</b>
<b>Meeting Expenses</b>							
Meetings	\$ 361,750	\$ 365,368	\$ 3,618	1.0%	\$ 369,021	\$ 3,654	1.0%
Travel	845,900	854,359	8,459	1.0%	862,903	8,544	1.0%
Conference Calls	36,000	36,360	360	1.0%	36,724	364	1.0%
<b>Total Meeting Expenses</b>	<b>\$ 1,243,650</b>	<b>\$ 1,256,087</b>	<b>\$ 12,437</b>	<b>1.0%</b>	<b>\$ 1,268,647</b>	<b>\$ 12,561</b>	<b>1.0%</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 2,071,150	\$ 2,071,150	-	0.0%	\$ 2,071,150	\$ -	0.0%
Office Rent	832,700	841,027	8,327	1.0%	849,437	8,410	1.0%
Office Costs	685,981	699,701	13,720	2.0%	713,695	13,994	2.0%
Professional Services	947,000	947,000	-	0.0%	947,000	-	0.0%
Miscellaneous	51,000	51,510	510	1.0%	52,025	515	1.0%
<b>Total Operating Expenses</b>	<b>\$ 4,587,831</b>	<b>\$ 4,610,388</b>	<b>\$ 22,557</b>	<b>0.5%</b>	<b>\$ 4,633,307</b>	<b>\$ 22,919</b>	<b>0.5%</b>
<b>Total Direct Expenses</b>	<b>\$ 16,841,098</b>	<b>\$ 17,303,548</b>	<b>\$ 462,451</b>	<b>2.7%</b>	<b>\$ 17,787,084</b>	<b>\$ 483,535</b>	<b>2.8%</b>
<b>Indirect Expenses</b>	<b>\$ (409,450)</b>	<b>\$ (417,639)</b>	<b>\$ (8,189)</b>	<b>2.0%</b>	<b>\$ (425,992)</b>	<b>\$ (8,353)</b>	<b>2.0%</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses (B)</b>	<b>\$ 16,431,647</b>	<b>\$ 16,885,909</b>	<b>\$ 454,262</b>	<b>2.8%</b>	<b>\$ 17,361,092</b>	<b>\$ 475,182</b>	<b>2.8%</b>
<b>Change in Assets</b>	<b>\$ (849,611)</b>	<b>\$ (997,035)</b>	<b>\$ (147,424)</b>	<b>17.4%</b>	<b>\$ (1,025,711)</b>	<b>\$ (28,676)</b>	<b>2.9%</b>
<b>Fixed Assets Additions (C)</b>	<b>\$ 170,000</b>	<b>\$ 100,000</b>	<b>\$ (70,000)</b>	<b>-41.2%</b>	<b>\$ 100,000</b>	<b>\$ (50,000)</b>	<b>-50.0%</b>
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 16,601,647</b>	<b>\$ 16,985,909</b>	<b>\$ 384,262</b>	<b>2.3%</b>	<b>\$ 17,461,092</b>	<b>\$ 475,182</b>	<b>2.8%</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (1,019,611)</b>	<b>\$ (1,097,035)</b>	<b>\$ (77,424)</b>	<b>7.6%</b>	<b>\$ (1,125,711)</b>	<b>\$ (28,676)</b>	<b>0.0%</b>
FTEs	41.09	41.09	0	0.0%	41.09	0	0.0%

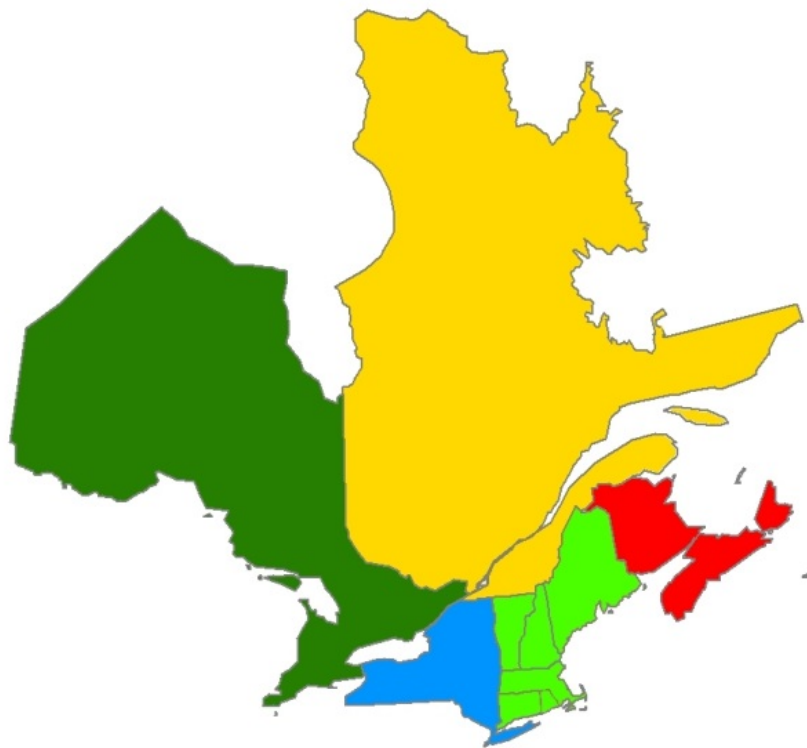
## Assumptions

- No changes in assumptions
- Staffing remains flat
- Change in assessments is equal to change in total budget

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## Section C — Criteria Services Division Activities 2020 Business Plan and Budget

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## Section C – Criteria Services Division Activities

<b>Criteria Services Division</b>			
(in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	2.14	2.16	0.02
Total Direct Expenses	\$662,756	\$709,217	\$46,461
Total Indirect Expenses	\$415,818	\$409,450	(\$6,368)
Other Non-Operating Expenses	\$0	\$0	\$0
Working Capital and Operating Reserves Requirement	(\$49,707)	(\$79,265)	(\$29,558)
Fixed Asset Additions	\$30,000	\$30,000	\$0
Funding Requirement	\$1,058,866	\$1,069,402	\$10,536

### 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. These 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.

As NERC Reliability Standards are revised or new standards are developed, NPCC performs reviews of any associated Regional Criteria for possible impact.

For 2020 and beyond, the potential reliability impacts of increased penetration of Distributed Energy Resources (DER, e.g. solar and wind), and changing fuel mixes warrant further consideration. The Criteria Services Division has a unique opportunity to review 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 renewable resources to develop reliability documents will become increasingly important over time. Outreach, collaboration, and coordination of topics related to DER will enable NPCC to develop guidelines 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.

### **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 that 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.

### **Major 2020 Assumptions and Cost Impacts**

The Criteria Services division activities are expected to remain stable or slightly increase throughout 2020 depending on reliability need.

- The Criteria Compliance 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.
- Past non-compliances, if any, followed the due process stated in the CCEP-1 process document and proper resolution/enforcement action taken.

### **2020 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.
  - Directory No. 12 “Automatic Underfrequency Load Shedding Requirements” will be retired in 2020 upon approval of PRC-006-NPCC-2 “Automatic Underfrequency Load Shedding” Regional Standard
- Identify opportunities to develop criteria, procedures or guideline documents to address reliability related matters with DER.
- 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 with, 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.
- Conduct review of the following Documents:
  - Directory No. 7 – *Special Protection Systems* – the TFSP will serve as lead Task Force working in conjunction with TFCP and TFSS on revisions required to ensure consistency with the development of the NERC standard on Remedial Action Schemes.
  - Review and respond to Requests for Clarifications to existing NPCC Standards, Directories, and 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 a requirements and “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 2020, 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 2020.

#### *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, 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.

#### *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 is reviewing 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 review and revision.



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.

Directory #7, *Special Protection Systems*

This Directory documents NPCC's Regionally-specific, more stringent criteria for application and approval of SPS. The NPCC Task Force on System Protection will lead this review and revision and 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 lead the review and revision of this Directory in 2018. The Directory was re-formatted to be consistent with the style of NERC standards.

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 anticipates the development and approval of Directory#11 in order to facilitate the retirement of PRC -002-NPCC-1 and will lead this review and revision.

## **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 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 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 noncompliances, 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 assessment report and any recommendations on noncompliances are then presented to the NPCC Reliability Coordinating Committee (RCC) for approval.

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 consist with the current Memorandum of Understanding that NPCC has with its Canadian Members.

### **Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- No significant variances.

## 2019 Budget and Projection and 2020 Budget Comparisons

<b>Statement of Activities and Capital Expenditures</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>CRITERIA SERVICES DIVISION</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
ERO Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
<b>Total ERO Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Membership Dues	1,058,866	1,058,866	-	1,069,402	10,536
Testing Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Misc Revenue	-	-	-	-	-
Interest & Investment Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 1,058,866</b>	<b>\$ 1,058,866</b>	<b>\$ -</b>	<b>\$ 1,069,402</b>	<b>\$ 10,536</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 371,938	\$ 371,938	\$ -	\$ 367,979	\$ (3,959)
Payroll Taxes	23,696	23,696	-	24,864	1,168
Benefits	102,779	102,779	-	123,261	20,482
Retirement Costs	43,182	43,182	-	41,954	(1,228)
<b>Total Personnel Expenses</b>	<b>\$ 541,596</b>	<b>\$ 541,596</b>	<b>\$ -</b>	<b>\$ 558,057</b>	<b>\$ 16,462</b>
<b>Meeting Expenses</b>					
Meetings	\$ 5,000	\$ 5,000	\$ -	\$ 14,000	\$ 9,000
Travel	56,800	56,800	-	56,800	-
<b>Total Meeting Expenses</b>	<b>\$ 61,800</b>	<b>\$ 61,800</b>	<b>\$ -</b>	<b>\$ 70,800</b>	<b>\$ 9,000</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 55,360	\$ 55,360	\$ -	\$ 76,360	\$ 21,000
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Computer & Equipment Leases	-	-	-	-	-
Miscellaneous	4,000	4,000	-	4,000	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 59,360</b>	<b>\$ 59,360</b>	<b>\$ -</b>	<b>\$ 80,360</b>	<b>\$ 21,000</b>
<b>Total Direct Expenses</b>	<b>\$ 662,756</b>	<b>\$ 662,756</b>	<b>\$ -</b>	<b>\$ 709,217</b>	<b>\$ 46,462</b>
<b>Indirect Expenses</b>	<b>\$ 415,818</b>	<b>\$ 415,818</b>	<b>\$ -</b>	<b>\$ 409,450</b>	<b>\$ (6,368)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,078,574</b>	<b>\$ 1,078,574</b>	<b>\$ -</b>	<b>\$ 1,118,668</b>	<b>\$ 40,094</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (19,707)</b>	<b>\$ (19,707)</b>	<b>\$ -</b>	<b>\$ (49,265)</b>	<b>\$ (29,558)</b>
<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>\$ 30,000</b>	<b>\$ 30,000</b>	<b>\$ -</b>	<b>\$ 30,000</b>	<b>\$ -</b>
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 1,108,574</b>	<b>\$ 1,108,574</b>	<b>\$ -</b>	<b>\$ 1,148,668</b>	<b>\$ 40,094</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (49,707)</b>	<b>\$ (49,707)</b>	<b>\$ -</b>	<b>\$ (79,265)</b>	<b>\$ (29,558)</b>

## Personnel Analysis

Total FTE's by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs <sup>1</sup> 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>CRITERIA SERVICES DIVISION</b>						
<b>Operational Programs</b>						
Reliability Standards	1.07	1.07	1.00	0.08	1.08	0.01
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	0.08	1.08	0.01
Situation Awareness and Infrastructure Security	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total FTEs Operational Programs</b>	<b>2.14</b>	<b>2.14</b>	<b>2.00</b>	<b>0.16</b>	<b>2.16</b>	<b>0.02</b>
<b>Administrative Programs</b>						
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
<b>Total FTEs Administrative Programs</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total FTEs</b>	<b>2.14</b>	<b>2.14</b>	<b>2.00</b>	<b>0.16</b>	<b>2.16</b>	<b>0.02</b>

<sup>1</sup>A shared FTE is defined as an employee who performs both Regional Entity and Criteria Services division functions.

## Reserve Analysis 2019 - 2020

Working Capital and Operating Reserve Analysis 2019-2020				
CRITERIA SERVICES DIVISION				
	Total Reserve	Operating Reserve	Working Capital	Business Continuity
<b>Beginning Total Reserve, December 31, 2018</b>	571,369	422,614	88,755	60,000
2019 Non-Statutory Funding (from members)	1,058,866	1,058,866		
Plus: 2019 Other funding sources	0	0		
Less: 2019 Projected expenses & fixed asset additions	(1,108,574)	(1,108,574)		
<b>Projected Total Reserve, December 31, 2019</b>	<b>521,661</b>	<b>372,906</b>	<b>88,755</b>	<b>60,000</b>
<b>Desired Total Reserve, December 31, 2020</b>	<b>442,396</b>	320,137 <sup>1</sup>	95,718 <sup>2</sup>	26,540 <sup>3</sup>
Less: Projected Total Reserve, December 31, 2019	(521,661)	(372,906)	(88,755)	(60,000)
<b>Increase(decrease) in assessments to achieve desired Total Reserve</b>	<b>(79,265)</b>	<b>(52,769)</b>	<b>6,963</b>	<b>(33,460)</b>
2020 Funding requirement for expenses and fixed asset additions	1,148,668			
Less: Other Funding Sources	(4,200)			
Less: Release of Business Continuity Reserve Funds <sup>3</sup>	(33,460)			
Adjustment to Working Capital to achieve desired Total Reserve balance <sup>2</sup>	6,963			
Adjustment to Operating Reserve to achieve desired Total Reserve balance <sup>1</sup>	(52,769)			
<b>2020 Funding and reserve requirement</b>	<b>1,065,202</b>			

<sup>1</sup> Total NPCC Operating Reserve must be within a range from 8.33% to 25.00% of Budget. \$320,137 represents 27.87% of the 2019 CS budget of \$1,148,668.

<sup>2</sup> Total NPCC Working Capital must equal 8.33% of Budget. \$95,718 represents 8.33% of the 2019 CS budget of \$1,148,668.

<sup>3</sup> Business Continuity Reserve (BCR) established in 2017 as approved by the NPCC Board of Directors to fund Succession Planning related expenses.

### Explanation of Changes in Reserve Policy from Prior Year

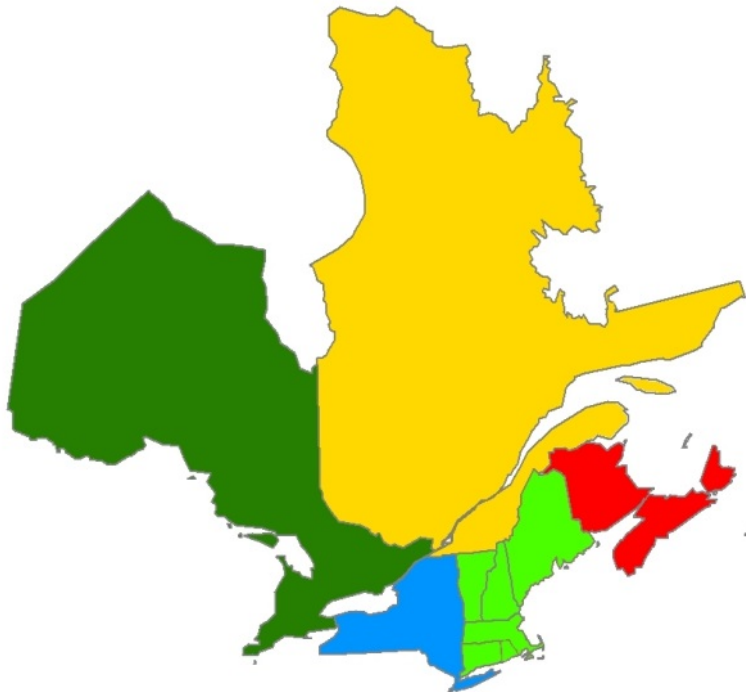
There was no change to the existing Working Capital and Operating Reserve Policy. A separate Business Continuity Reserve (BCR) in the amount of \$1,000,000 (allocated between the Regional Entity and Criteria Services divisions) was established in 2017 as approved by the NPCC Board of Directors, upon 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 succession related activities associated with the planned or a sudden retirement, as well as other sudden changing workforce staffing requirements which could be brought about by coincident multiple staff retirements.

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## Section D – Additional Consolidated Financial Statements

### 2020 Business Plan and Budget

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## Section D — Additional Financial Statements

### Statement of Financial Position

<b>Statement of Financial Position</b>				
<b>2018 Audited, 2019 Projection, and 2020 Budget</b>				
<b>Regional Entity and Criteria Services Division</b>				
		(Per Audit)	Projected	Budget
		31-Dec-18	31-Dec-19	31-Dec-20
<b>ASSETS</b>				
Cash		\$ 6,912,908	\$ 2,095,000	\$ 2,100,000
Restricted cash		270,293	270,000	150,000
Temporary cash investments		1,840,294	5,300,000	4,111,000
Prepaid expenses		244,237	245,000	245,000
Other assets		247,216	250,000	272,000
Equipment and leasehold improvements, net		611,242	564,000	504,000
<b>Total Assets</b>		<b>\$ 10,126,190</b>	<b>\$ 8,724,000</b>	<b>\$ 7,382,000</b>
<b>LIABILITIES AND NET ASSETS</b>				
<b>Liabilities</b>				
Accrued expenses and other liabilities		\$ 2,817,673	\$ 2,841,000	\$ 2,879,000
Deferred revenue		509,901	-	-
Deferred rent		526,061	440,000	339,000
<b>Total Liabilities</b>		<b>3,853,635</b>	<b>3,281,000</b>	<b>3,218,000</b>
<b>Net Assets - Without Donor Restrictions</b>				
Available for operations		5,272,555	4,443,000	3,642,000
Board designated for future use		1,000,000	1,000,000	522,000
<b>Total Net Assets Without Donor Restrictions</b>		<b>6,272,555</b>	<b>5,443,000</b>	<b>4,164,000</b>
<b>Total Liabilities and Net Assets</b>		<b>\$ 10,126,190</b>	<b>\$ 8,724,000</b>	<b>\$ 7,382,000</b>

Section D — Additional Financial Statements

NPCC Statement of Activities 2020 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
<b>Funding</b>								
<b>ERO Funding</b>								
ERO Assessments	15,338,737	1,063,510	9,034,625	3,210,055	171,524	2,484,879	-	(625,856)
Penalty Sanctions	120,000	7,505	69,994	21,115	389	20,998	-	-
<b>Total ERO Funding</b>	<b>15,458,737</b>	<b>1,071,015</b>	<b>9,104,618</b>	<b>3,231,169</b>	<b>171,912</b>	<b>2,505,877</b>	<b>-</b>	<b>(625,856)</b>
Membership Dues	-	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-	-
Workshops & Misc Revenue	67,500	-	-	-	67,500	-	-	-
Interest & Investment Income	55,800	-	-	-	-	-	-	55,800
<b>Total Funding (A)</b>	<b>15,582,037</b>	<b>1,071,015</b>	<b>9,104,618</b>	<b>3,231,169</b>	<b>239,412</b>	<b>2,505,877</b>	<b>-</b>	<b>(570,056)</b>
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	7,704,262	400,744	2,928,438	1,006,128	11,793	924,110	42,551	2,433,049
Payroll Taxes	479,019	23,034	202,717	64,023	939	61,713	3,940	126,595
Benefits	1,943,385	110,172	732,104	218,787	5,652	202,020	19,182	674,649
Retirement Costs	882,950	43,833	314,664	109,418	1,478	99,986	5,270	313,571
<b>Total Personnel Expenses</b>	<b>11,009,617</b>	<b>577,783</b>	<b>4,177,923</b>	<b>1,398,356</b>	<b>19,862</b>	<b>1,287,829</b>	<b>70,943</b>	<b>3,547,864</b>
<b>Meeting Expenses</b>								
Meetings	361,750	5,000	15,000	22,000	185,000	8,000	750	126,750
Travel	845,900	90,900	300,400	216,200	15,000	94,300	4,100	129,100
Conference Calls	36,000	-	-	-	-	-	-	36,000
<b>Total Meeting Expenses</b>	<b>1,243,650</b>	<b>95,900</b>	<b>315,400</b>	<b>238,200</b>	<b>200,000</b>	<b>102,300</b>	<b>4,850</b>	<b>291,850</b>
<b>Operating Expenses, excluding Depreciation</b>								
Consultants & Contracts	2,071,150	20,000	1,097,150	533,000	-	60,000	-	361,000
Office Rent	832,700	-	-	-	-	-	-	832,700
Office Costs	685,981	-	-	-	-	-	-	685,981
Professional Services	947,000	-	-	-	-	-	-	947,000
Miscellaneous	51,000	-	-	-	-	-	-	51,000
<b>Total Operating Expenses, excluding Depreciation</b>	<b>4,587,831</b>	<b>20,000</b>	<b>1,097,150</b>	<b>533,000</b>	<b>-</b>	<b>60,000</b>	<b>-</b>	<b>2,877,681</b>
<b>Total Direct Expenses</b>	<b>16,841,098</b>	<b>693,683</b>	<b>5,590,473</b>	<b>2,169,556</b>	<b>219,862</b>	<b>1,450,129</b>	<b>75,793</b>	<b>6,717,395</b>
<b>Indirect Expenses</b>	<b>(409,450)</b>	<b>366,700</b>	<b>3,420,003</b>	<b>1,031,701</b>	<b>19,000</b>	<b>1,026,001</b>	<b>(75,793)</b>	<b>(6,272,855)</b>
<b>Other Non-Operating Expenses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Expenses (B)</b>	<b>16,431,647</b>	<b>1,060,383</b>	<b>9,010,476</b>	<b>3,201,257</b>	<b>238,862</b>	<b>2,476,130</b>	<b>-</b>	<b>444,540</b>
<b>Change in Net Assets (=A-B)</b>	<b>(849,611)</b>	<b>10,632</b>	<b>94,142</b>	<b>29,913</b>	<b>551</b>	<b>29,747</b>	<b>-</b>	<b>(1,014,596)</b>
<b>Fixed Asset Additions</b>								
Computer & Software CapEx	170,000	-	-	-	-	-	-	170,000
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-
Allocation of Fixed Asset Additions	-	10,632	99,157	29,913	551	29,747	-	(170,000)
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>170,000</b>	<b>10,632</b>	<b>99,157</b>	<b>29,913</b>	<b>551</b>	<b>29,747</b>	<b>-</b>	<b>-</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>16,601,647</b>	<b>1,071,015</b>	<b>9,109,633</b>	<b>3,231,169</b>	<b>239,412</b>	<b>2,505,877</b>	<b>-</b>	<b>444,540</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>(1,019,611)</b>	<b>0</b>	<b>(5,015)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>(1,014,596)</b>
<b>FTEs</b>	<b>41.09</b>	<b>1.93</b>	<b>18.00</b>	<b>5.43</b>	<b>0.10</b>	<b>5.40</b>	<b>0.50</b>	<b>10.23</b>

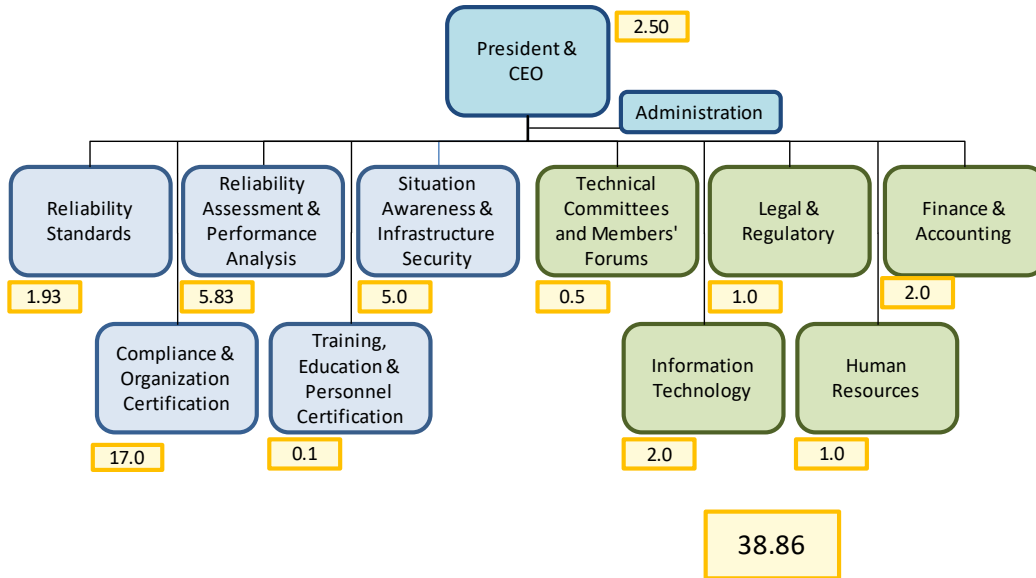


**Section D — Additional Financial Statements**

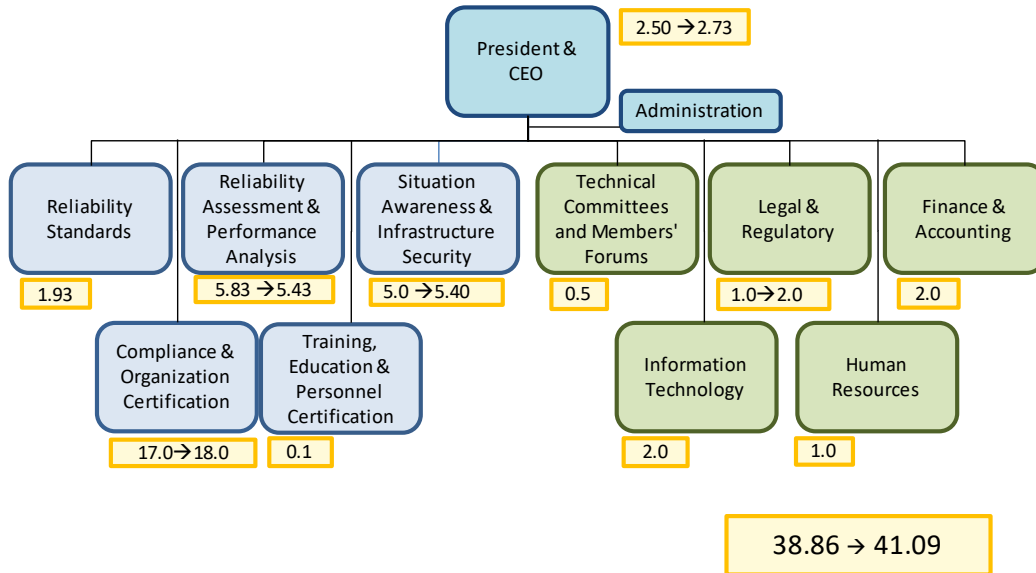
<b>NPCC Statement of Activities 2020 Budget</b>		<b>Criteria Services Total</b>	<b>Criteria Development</b>	<b>Criteria Assessment</b>	<b>General and Administrative</b>
<b>Funding</b>					
<b>ERO Funding</b>					
	ERO Assessments	-	-	-	-
	Penalty Sanctions	-	-	-	-
	<b>Total ERO Funding</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	Membership Dues	1,065,202	567,485	560,183	(62,465)
	Testing Fees	-	-	-	-
	Services & Software	-	-	-	-
	Workshops & Misc Revenue	-	-	-	-
	Interest & Investment Income	4,200	-	-	4,200
	<b>Total Funding (A)</b>	<b>1,069,402</b>	<b>567,485</b>	<b>560,183</b>	<b>(58,265)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
	Salaries	367,979	195,238	172,742	-
	Payroll Taxes	24,864	12,557	12,306	-
	Benefits	123,261	57,736	65,525	-
	Retirement Costs	41,954	22,003	19,950	-
	<b>Total Personnel Expenses</b>	<b>558,057</b>	<b>287,535</b>	<b>270,523</b>	<b>-</b>
<b>Meeting Expenses</b>					
	Meetings	14,000	1,500	12,500	-
	Travel	56,800	28,200	28,600	-
	Conference Calls	-	-	-	-
	<b>Total Meeting Expenses</b>	<b>70,800</b>	<b>29,700</b>	<b>41,100</b>	<b>-</b>
<b>Operating Expenses, excluding Depreciation</b>					
	Consultants & Contracts	76,360	29,000	26,360	21,000
	Office Rent	-	-	-	-
	Office Costs	-	-	-	-
	Professional Services	-	-	-	-
	Miscellaneous	4,000	2,000	2,000	-
	<b>Total Operating Expenses, excluding Depreciation</b>	<b>80,360</b>	<b>31,000</b>	<b>28,360</b>	<b>21,000</b>
	<b>Total Direct Expenses</b>	<b>709,217</b>	<b>348,235</b>	<b>339,983</b>	<b>21,000</b>
	<b>Indirect Expenses</b>	<b>409,450</b>	<b>204,250.16</b>	<b>205,200.16</b>	<b>-</b>
	<b>Other Non-Operating Expenses</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
	<b>Total Expenses (B)</b>	<b>1,118,668</b>	<b>552,485</b>	<b>545,183</b>	<b>21,000</b>
	<b>Change in Net Assets (=A-B)</b>	<b>(49,265)</b>	<b>15,000</b>	<b>15,000</b>	<b>(79,265)</b>
<b>Fixed Asset Additions</b>					
	Computer & Software CapEx	30,000	15,000	15,000	-
	Furniture & Fixtures CapEx	-	-	-	-
	Equipment CapEx	-	-	-	-
	Leasehold Improvements	-	-	-	-
	Allocation of Fixed Asset Additions	-	-	-	-
	<b>Fixed Asset Additions, excluding Right of Use Assets ( C )</b>	<b>30,000</b>	<b>15,000</b>	<b>15,000</b>	<b>-</b>
	<b>TOTAL BUDGET (=B + C)</b>	<b>1,148,668</b>	<b>567,485</b>	<b>560,183</b>	<b>21,000</b>
	<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>(79,265)</b>	<b>-</b>	<b>-</b>	<b>(79,265)</b>
	<b>FTEs</b>	<b>2.16</b>	<b>1.08</b>	<b>1.08</b>	<b>0</b>

# Appendix A Staff Allocations

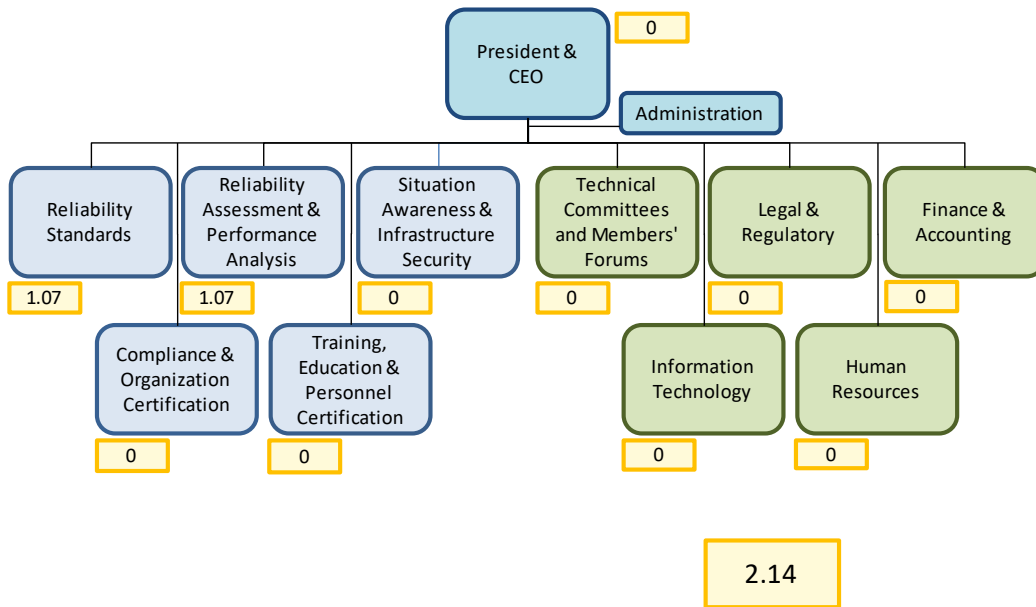
2019 Budget Staff Allocations - RE Division



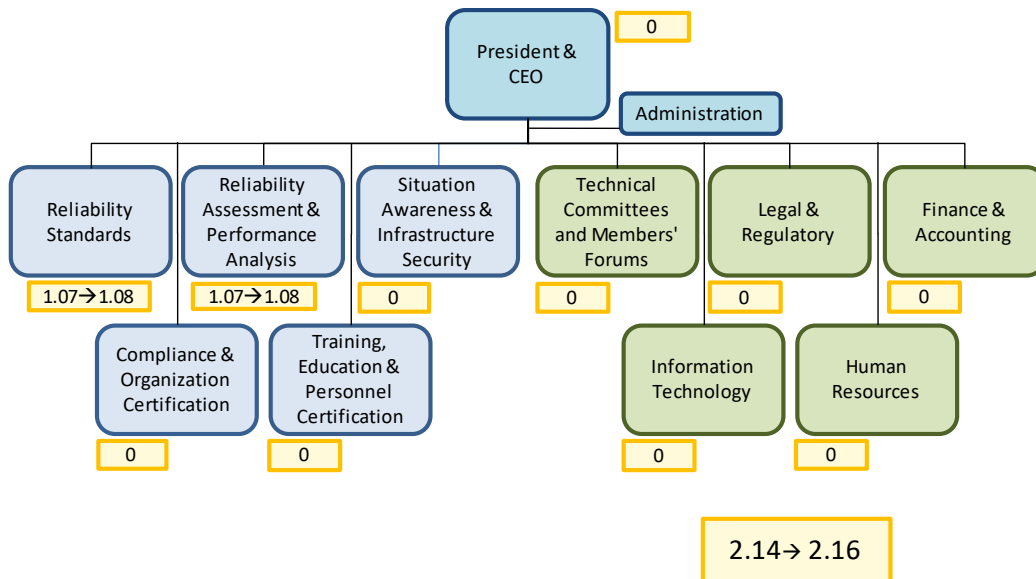
2020 Budget Staff Allocations - RE Division



2019 Budget Staff Allocations - CS Division



2020 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
BEPWG	BES Exception Process Working Group
BES	Bulk Electric System
BOT	Board of Trustees
BPS	Bulk Power System
CC	Compliance Committee
CCEP	Criteria Compliance Enforcement Program
CDAA	CMEP Data Administration Application
CEAP	Cost Effective Analysis Process
CEH	Continuing Education Hour
CGNC	Corporate Governance and Nominating Committee
CIPC	Critical Infrastructure Protection Committee
CIPIS	Critical Information Protection Information Sharing
CMEP	Compliance Monitoring and Enforcement Program
CORC	Compliance Monitoring and Enforcement and Organization Registration and Certification Program
CPP	Clean Power Plan
CRRA	Cost of Risk Reduction Analysis
CUG	Consortium Users Group
DADS	Demand Availability Data System
DADSWG	Demand Response Availability Data System Working Group
ERA	Entity Reliability Assessment
ERAG	Eastern Interconnection Reliability Assessment Group
ERO	Electric Reliability Organization
EUB	Electric Utility Board
EUB	Energy and Utilities Board
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, Track
GADS	Generator Availability Data System
GADSWG	Generating Availability Data System Working Group
GMD	Geomagnetic Disturbance
HQCMÉ	Hydro-Québec Contrôle des mouvements d'énergie
HSIN	Homeland Security Information Network
ICE	Internal Controls Evaluation
IED	Intelligent Electronic Device
IERP	Independent Experts Review Panel Report
IESO	Independent Electricity System Operator
IRA	Inherent Risk Assessment
ISO	Independent System Operator
ITSG	IT Steering Group
LCEFT	Load, Capacity, Energy, Fuels, and Transmission
LMS	Learning Management System
LMWG	Load Modeling Working Group
LSE	Load Serving Entity
MACD	Market Assessment and Compliance Division of the IESO
MDCC	Management Development and Compensation Committee
ME	Mitigation and Enforcement
MMWG	Multi-Regional Modeling Working Group
MOU	Memorandum of Understanding
MPLS	Multiprotocol Label Switching
MVWG	Model Validation Working Group
NAESB	North American Electric Standards Review Board

## Appendix B

Acronym	Definition
NEL	Net Energy for Load
NERC	North American Electric Reliability Corporation
NOAV	Notice of Alleged Violation
NOCV	Notice of Confirmed Violation
NOPR	Notice of Proposed Rulemaking
NOPV	Notice of Possible Violation
NPCC	Northeast Power Coordinating Council, Inc.
NRAP	NPCC Reliability Assessment program
NSPI	Nova Scotia Power Incorporated
NSUARB	Nova Scotia Utility and Review Board
OEB	Ontario Energy Board
PAS	Performance Analysis Subcommittee
PC	Pension Committee
PMOS	Project Management Oversight Subcommittee
PSMTF	Protection System Mis-operations Task Force
PSTN	Public Switched Telephone Network
QCMEP	Québec Reliability Standards Compliance Monitoring and Enforcement Program
RADS	Reliability Assessment Data System
RADWG	Reliability Assessment Data Working Group
RAS	Reliability Assessment Subcommittee
RC	Reliability Coordinator
RCC	Reliability Coordinating Committee
RISC	Reliability Issues Steering Committee
RSAW	Reliability Standards Audit Worksheet
RSC	Regional Standards Committee
RTO	Regional Transmission Organization
SAFNR	Situational Awareness-FERC, NERC, Regions
SAMS	System Analysis and Modeling Subcommittee
SAR	Standards Authorization Request
SAT	Systematic Approach to Training
SBS	Standards Balloting System
SCPS	Standards Committee Process Subcommittee
SDT	Standards Drafting Team
SEDS	Spare Equipment Database System
SEDTF	Spare Equipment Database Task Force
SPS	Special Protection Systems
TADS	Transmission Availability Data System
TADSWG	Transmission Availability Data System Working 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
TLR	Transmission Loading Relief
TOP	Transmission Operator
UFLS	Underfrequency Load Shedding
UVLS	Under-Voltage Load Shedding
VRF	Violation Risk Factor
VSL	Violation Security Level

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**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 5**

**RELIABILITYFIRST CORPORATION**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



**RELIABILITY FIRST**

**RELIABILITYFIRST CORPORATION  
2020 BUSINESS PLAN AND BUDGET**

**APPROVED BY BOARD OF DIRECTORS  
MAY 23, 2019**

**FINAL VERSION**



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## Introduction

The following table summarizes ReliabilityFirst Corporation's (ReliabilityFirst) budget for 2020.

	2020 Budget			
	(in whole dollars)	U.S.	Canada	Mexico
Statutory FTEs	79.35			
Non-statutory FTEs	-			
<b>Total FTEs</b>	79.35			
Statutory Expenses	\$ 23,260,862			
Non-Statutory Expenses	\$ -			
<b>Total Expenses</b>	\$ 23,260,862			
Statutory Inc(Dec) in Fixed Assets	\$ 390,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
<b>Total Inc(Dec) in Fixed Assets</b>	\$ 390,000			
Statutory Working Capital Requirement	\$ (1,014,613)			
Non-Statutory Working Capital Requirement	\$ -			
<b>Total Working Capital Requirement</b>	\$ (1,014,613)			
Total Statutory Funding Requirement	\$ 22,636,250			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	\$ 22,636,250			
<b>Statutory Funding Assessments</b>	\$ 22,318,623	\$ 22,318,623	\$ -	\$ -
<b>Non-Statutory Fees</b>	\$ -	\$ -	\$ -	\$ -
NEL (MWH)	916,079,013	916,079,013	-	-
NEL%	100%	100%	0%	0%

## Organizational Overview

ReliabilityFirst is a not-for-profit company 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 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 the Electric Reliability Organization (ERO), the North American Electric Reliability Corporation (NERC). These include:

- Active participation in the development of North American Reliability Standards for the Bulk Electric System (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.
- 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 2020.

## **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 58 Members of ReliabilityFirst; 42 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 14 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.
- Three (3) 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.

## **2020 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 and the ERO Enterprise Operating Plan.<sup>1</sup>

## 2020 Key Deliverables

- Promote a culture 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 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.

---

<sup>1</sup> See, [ERO Enterprise Long-Term Strategy](#) and [ERO Enterprise Operating Plan](#).

- Ensure useful and reliable data modeling. Verify that the data represents system behavior accurately. Facilitate data sharing among entities.
- 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.
  - 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.

## **2020 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 2020. Overall, the ReliabilityFirst 2020 budget of \$23,650,862 increased 4.4% over the 2019 budget of \$22,648,458. The 2020 assessment of \$22,318,623 represents a 5% increase over the 2019 assessment of \$21,255,831.

Personnel costs increased by \$800,531, an increase of 4.2% over the 2019 budget. Incorporated into the personnel costs are 1.15 additional Full Time Equivalents (FTE's), a 3% general wage increase, and an increased focus on training and education. For 2020, ReliabilityFirst did not include a personnel vacancy rate because the corporation has operated with a turnover rate well below 5% for the last several years. Any remaining personnel dollars resulting from vacancies could be used to fund the company's recruitment activities to attract necessary employee candidates.

The meetings, operating and fixed asset costs of \$3,782,109 increased by 5.6% over the 2019 budget of \$3,580,236. The increase was primarily the result of office modifications, which are necessary as the growth and needs of the organization continue to grow. After five years in our present facility we have identified the need to more efficiently utilize the office footprint to facilitate the increased number of in office staff versus telecommuters, while maximizing utilization of the entire office space for the necessary support activities

The ReliabilityFirst Board has approved a \$1,000,000 operating reserve for 2020, which is the same level that existed in 2019. 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 a decrease in the working capital reserve. 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.

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 2020 yielded a requirement of 85.35 FTEs in order to fully address the expected workload.

Although ReliabilityFirst's manpower analysis justifies a need for 85.35 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 79.35, which includes 1.15 additional FTE's, will be sufficient to perform its work. The need for these additional FTE's is described in the Compliance Monitoring, and Finance and Accounting sections below.

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.

Beginning with the 2020 Business Plan & Budget, NERC and the Regions are implementing format revisions to the Statement of Activities report. These revisions are intended to ensure that NERC and the Regions report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). The goal of the new format is to improve 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. One of the format revisions is that the report will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (which resulted in depreciation having no impact on funding requirements or actual results).

In the 2020 Business Plan & Budget document, the 2019 budget has been restated to reflect the new statement of activities reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, in the total entity and departmental Statements of Activities, depreciation expense has been removed from the 2019 operating

expense budgets and projections, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections.

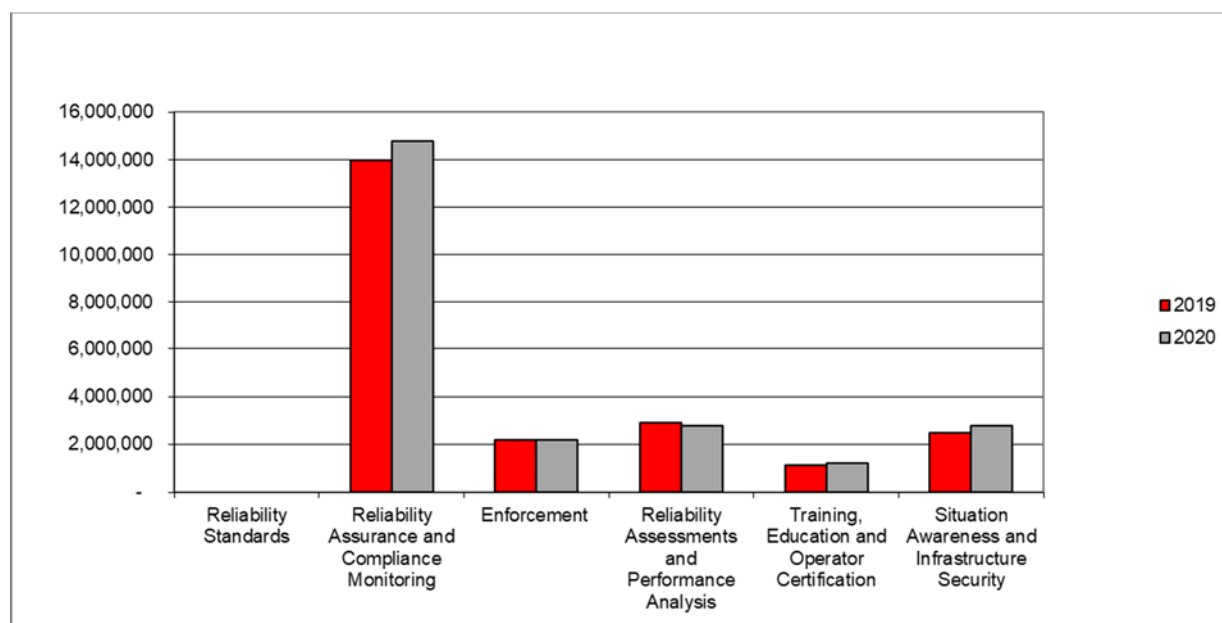


## Summary of Budget by Program Area

The following table and figure summarize and illustrate ReliabilityFirst's budget by program area.

Program	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Reliability Standards	-	-	-	-	0.0%
Reliability Assurance and Compliance Monitoring	13,973,637	13,973,637	14,782,833	809,196	5.8%
Enforcement	2,189,755	2,189,755	2,163,084	(26,671)	-1.2%
Reliability Assessments and Performance Analysis	2,909,104	2,909,104	2,759,295	(149,809)	-5.1%
Training, Education and Operator Certification	1,110,836	1,110,836	1,182,027	71,191	6.4%
Situation Awareness and Infrastructure Security	2,465,125	2,465,125	2,763,623	298,498	12.1%
<b>Total</b>	<b>22,648,458</b>	<b>22,648,458</b>	<b>23,650,862</b>	<b>1,002,404</b>	<b>4.4%</b>

## 2019 Versus 2020 Cost Allocation by Program Summary of Expenses



## FTEs by Program Area

	2019	2020	Change
Total FTEs by Program Area	Budget	Budget	from 2019 Budget
<b>STATUTORY</b>			
<b>Operational Programs</b>			
Reliability Standards	0.00	0.00	0.00
Reliability Assurance and Compliance Monitoring Enforcement	37.00	38.00	1.00
Reliability Assessment and Performance Analysis	7.00	7.00	0.00
Training and Education	7.60	6.60	-1.00
Situation Awareness and Infrastructure Security	3.00	3.00	0.00
	7.00	8.00	1.00
<b>Total FTEs Operational Programs</b>	<b>61.60</b>	<b>62.60</b>	<b>1.00</b>
<b>Administrative Programs</b>			
General & Administrative	3.00	3.00	0.00
Legal and Regulatory Affairs	3.00	3.00	0.00
Information Technology	6.00	6.00	0.00
Human Resources	2.00	2.00	0.00
Finance and Accounting	2.60	2.75	0.15
<b>Total FTEs Administrative Programs</b>	<b>16.60</b>	<b>16.75</b>	<b>0.15</b>
<b>Total FTEs</b>	<b>78.20</b>	<b>79.35</b>	<b>1.15</b>

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

## 2019 Budget and Projection and 2020 Budget Comparisons

The following table lists the 2019 budget and projection compared to the 2020 budget.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>STATUTORY</b>					
	<b>2019 Budget</b>	<b>2019 Projection</b>	<b>Variance 2019 Projection v 2019 Budget Over(Under)</b>	<b>2020 Budget</b>	<b>Variance 2019 Budget v 2020 Budget Over(Under)</b>
<b>Funding</b>					
<b>ReliabilityFirst Funding</b>					
ReliabilityFirst Assessments	\$ 21,255,831	\$ 21,255,831	\$ -	\$ 22,318,623	\$ 1,062,792
Penalty Sanctions	327,215	327,215	-	267,627	(59,588)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 21,583,046</b>	<b>\$ 21,583,046</b>	<b>\$ -</b>	<b>\$ 22,586,250</b>	<b>\$ 1,003,204</b>
Membership Dues	-	-	-	-	-
Interest and Investment Income	50,000	50,000	-	50,000	-
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>21,633,046</b>	<b>21,633,046</b>	<b>-</b>	<b>22,636,250</b>	<b>1,003,204</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 13,701,387	\$ 13,701,387	\$ -	\$ 14,189,608	\$ 488,221
Payroll Taxes	807,085	807,085	-	846,791	39,705
Benefits	2,307,002	2,307,002	-	2,493,602	186,601
Retirement Costs	2,252,748	2,252,748	-	2,338,753	86,005
<b>Total Personnel Expenses</b>	<b>\$ 19,068,222</b>	<b>\$ 19,068,222</b>	<b>\$ -</b>	<b>\$ 19,868,754</b>	<b>\$ 800,531</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 366,400	\$ 366,400	\$ -	\$ 377,140	\$ 10,740
Travel	678,600	678,600	-	697,919	19,319
<b>Total Meeting Expenses</b>	<b>\$ 1,045,000</b>	<b>\$ 1,045,000</b>	<b>\$ -</b>	<b>\$ 1,075,059</b>	<b>\$ 30,059</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 528,612	\$ 528,612	\$ -	\$ 481,115	\$ (47,497)
Office Rent	521,086	521,086	-	539,292	18,206
Office Costs	815,130	815,130	-	810,400	(4,730)
Professional Services	423,522	423,522	-	442,483	18,961
Miscellaneous	43,886	43,886	-	43,759	(127)
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 2,332,236</b>	<b>\$ 2,332,236</b>	<b>\$ -</b>	<b>\$ 2,317,049</b>	<b>\$ (15,186)</b>
<b>Total Direct Expenses</b>	<b>\$ 22,445,458</b>	<b>\$ 22,445,458</b>	<b>\$ -</b>	<b>\$ 23,260,862</b>	<b>\$ 815,404</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 22,445,458</b>	<b>\$ 22,445,458</b>	<b>\$ -</b>	<b>\$ 23,260,862</b>	<b>\$ 815,404</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ (812,412)</b>	<b>\$ (812,412)</b>	<b>\$ -</b>	<b>\$ (624,613)</b>	<b>\$ 187,799</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>					
Allocation of Fixed Assets	203,000	203,000	-	390,000	187,000
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 203,000</b>	<b>\$ 203,000</b>	<b>\$ -</b>	<b>\$ 390,000</b>	<b>\$ 187,000</b>
<b>Total Budget (= B + C)</b>	<b>\$ 22,648,458</b>	<b>\$ 22,648,458</b>	<b>\$ -</b>	<b>\$ 23,650,862</b>	<b>\$ 1,002,404</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ (1,015,412)</b>	<b>\$ (1,015,412)</b>	<b>\$ -</b>	<b>\$ (1,014,613)</b>	<b>\$ 799</b>
<b>FTEs</b>	<b>78.20</b>	<b>78.20</b>	<b>-</b>	<b>79.35</b>	<b>1.15</b>

## **Section A: Statutory Programs**

## Reliability Standards Program

<b>Reliability Standards Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	0.00	0.00	0.00
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.

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.

### 2020 Key Assumptions

The Reliability Standards Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan.

ReliabilityFirst previously reallocated the resources and expenses associated with the Reliability Standards Program to the Reliability Assurance and Compliance Monitoring Program, 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 Assurance and Compliance Monitoring and Reliability Assessment and Performance Analysis Programs.

### 2020 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**

No personnel are budgeted in this year.

- **Contractors and Consultants**

No contractor or consultant support is budgeted in this year.

## Compliance Monitoring and Enforcement, and Organization Registration and Certification Program

<b>Compliance Monitoring, and Enforcement, and Organization Registration and Certification Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	44.00	45.00	1.00
Direct Expenses	\$ 11,264,889	\$ 11,792,051	\$ 527,162
Indirect Expenses	\$ 4,752,075	\$ 4,870,703	\$ 118,629
Inc(Dec) in Fixed Assets	\$ 146,429	\$ 283,163	\$ 136,734
Total Funding Requirement	\$ 16,163,392	\$ 16,945,917	\$ 782,525

### Program Scope and Functional Description

The Compliance Monitoring and Enforcement, and Organization Registration and Certification 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 and Certification Program among three coordinated groups: Reliability Assurance, Compliance Monitoring, and Enforcement.

The Reliability Assurance 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 Assurance section, include: (1) conducting Inherent Risk Assessments to assess the risk posed by each entity and help determine the initial scope of compliance monitoring activities; (2) conducting Internal Controls Evaluations 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 and certification 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, 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, guided 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 is: (1) clearly communicated; (2) 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 Assurance, Compliance Monitoring, and Enforcement groups include the continued implementation of the Risk-Based Compliance Monitoring and Enforcement Program, and efforts connected to the transition to the CIP Version 5 Standards (CIP V5) and future revisions. 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 Assurance, 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.



<b>Reliability Assurance and Compliance Monitoring</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	37.00	38.00	1.00
Direct Expenses	\$ 9,849,668	\$ 10,429,124	\$ 579,456
Indirect Expenses	\$ 3,996,063	\$ 4,113,038	\$ 116,976
Inc(Dec) in Fixed Assets	\$ 127,906	\$ 240,671	\$ 112,765
Total Funding Requirement	\$ 13,973,637	\$ 14,782,833	\$ 809,196

## Reliability Assurance

### Program Scope and Functional Description

The activities performed by the Reliability Assurance group include: Inherent Risk Assessments (identifying risks impacting an entity); Internal Controls Evaluations (evaluating the effectiveness of entity internal controls around specific Standards and Requirements); Management Practice Appraisals (evaluating an entity's capability and maturity level in key management practice areas); and Assist Visits (tailored training centered on the needs of the entity). The group's activities also include organization registration and certification activities; mitigation plan acceptance, approval, and verification; processing and assessment of periodic data submittals; winter preparedness evaluations; risk-harm analysis of non-compliances and participating in the review of self-logged minimal risk issues; assisting in the creation of compliance oversight plans to align monitoring activities with potential risks; providing industry training; BES Definition Exception Process activities; and serving as a technical resource for the Corporation.

### 2020 Key Assumptions

The Reliability Assurance group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. The Reliability Assurance group also includes the following regional assumptions:

1. Inherent Risk Assessment and Internal Controls Evaluation activities are expected to become steady-state activities with the ongoing implementation of the Risk-Based Compliance Monitoring and Enforcement Program. These activities include completing Inherent Risk Assessments and Compliance Oversight Plans for all Registered Entities, implementing refinements to the Internal Controls Evaluation process and conducting Internal Controls Evaluations upon request by an entity, and ensuring that Compliance Oversight Plans address emerging risks to reliability and are tailored to the inherent risks posed by specific entities.
2. The Multi-Regional Registered Entity (MRRE) process expanded in 2019 and is expected to continue maturing in 2020. Presently, ReliabilityFirst serves as Lead Region for 10 MRREs encompassing 46 entities, and Affected Region for 16 MRREs encompassing 20

entities. It is anticipated, taking into account ReliabilityFirst's location and impact on the eastern interconnection, that ReliabilityFirst may be designated as the Lead Region for additional MRREs. The expansion of the MRRE program has increased the workload associated with coordinating inherent risk assessments, compliance monitoring, and enforcement processes under the MRRE process.

3. In accordance with FERC's Order approving NERC's Risk-Based Registration Initiative, registration staff continues to participate in the NERC-led review panels described in the NERC Rules Of Procedures, Appendix 5A, Section III.D.
4. Assist Visits, Management Practice Appraisals, and Internal Controls Evaluations will continue to take place to collaboratively assist an entity's drive for continuous improvement and reliability excellence and its capability in key management practice areas. There was continued demand for Assist Visits in 2019, most of which continued a focus on the transition to and implementation of the CIP V5 Standards. The demand for Assist Visits, including requests for onsite Assist Visits at entity offices, is expected to continue and potentially expand in 2020.
5. ReliabilityFirst has provided "Extended Assist Visits" in 2018 and 2019, to support entities who have experienced major challenges related to Reliability Standards compliance or program implementation. These Extended Assist Visits require resource commitments beyond a normal Assist Visit, and can consist of multiple meetings and visits to the entity spread over the course of six to twelve months. These Extended Assist Visits are expected to continue in 2020.
6. There will be an effort to ensure that a specific risk targeted by a particular Reliability Standard is being adequately addressed (i.e., whether the Reliability Standard as written, monitored and enforced for compliance, is effectively mitigating the identified risk.)
7. Work with NERC will continue on the development of educational materials for Registered Entities regarding the Risk-Based Compliance Monitoring and Enforcement Program, Risk-Based Registration, and new and revised Reliability Standards.
8. There will be continued ERO Enterprise-wide collaboration and implementation of consistent risk-based compliance monitoring and enforcement practices and new tools. In particular, ReliabilityFirst staff resources will be allocated to continue the development, design, testing, training, and implementation of the new ERO Enterprise CMEP Tool, Align.

### **2020 Key Deliverables**

- Process all registration requests and implement the Risk-Based Registration Initiative.
- Process BES Exception Requests submittals.
- Provide technical assessment of periodic data submittals.

- 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, Risk-Harm Assessments, and explorative Probabilistic Risk Assessment).
- Support ERO Enterprise-wide data collection 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 Compliance Monitoring and Enforcement Program, with a focus on the ongoing assessment of ReliabilityFirst Regional Risk Elements, and maturation of the Inherent Risk Assessment and Internal Controls Evaluation processes.
- Support development of the annual CMEP implementation Plan with a focus on ERO and Regional Risk Elements and alignment of Areas of Focus.
- Perform Inherent Risk Assessments of entities in alignment with the ERO Guide for Compliance Monitoring to define an initial scope, recommended process (e.g., audit, spot check, guided self-certification), and interval of compliance monitoring activities for a given entity.
- Conduct risk-harm assessments and develop associated risk statements for all possible noncompliances 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.
  - Conducting 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 the development, training, and outreach for entities to continue successful transition to the CIP V5 Standards.
- Perform Assist Visits, facilitate and support regional workshops, and support monthly “open” reliability and compliance calls to educate entities on reliability and compliance topics.
- Perform Management Practice Appraisals as requested by entities.
- Using inherent risk assessment and Regional Risk Assessment results, analyze and perform outreach for identified risks related to specific entities or groups of entities.
- Assist entities in the performance of internal controls via new self-assessment tools and processes developed in 2019.
- Support the integration and use of the ERO Enterprise Learning Management System (LMS), and the development and implementation of a new LMS.
- 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.
- Continue the development and implementation of resiliency, risk, and interdependency projects and initiatives started in 2019.

## Resource Requirements

- **Personnel**

As noted above in the 2020 Key Assumptions, the demand for Assist Visits and Extended Assist Visits is expected to continue and potentially expand in 2020. Additionally, the MRRE process expanded again in 2019 and is expected to continue maturing in 2020. Coordination and workload associated with administering the program has increased in the Inherent Risk Assessments area under the MRRE process.

ReliabilityFirst is not adding FTE's in this area in 2020, but will monitor this area and will reassess whether to add FTE's to this area in early 2021. ReliabilityFirst has identified potential imminent retirements in this area and plans are in place to temporarily overlap key personnel who have indicated they are near retirement, to allow for adequate knowledge transfer and training of their successors.

- **Contractors and Consultants**

Contractor and/or consultant support is budgeted for 2020 to support risk assessment and mitigation activities in the event workload exceeds available resources. 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.

## 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; guided self-certifications; investigations; spot checks; 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.

### 2020 Key Assumptions

The Compliance Monitoring group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. 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), using a risk-based approach, ensuring that all activities are completed per the established process and timelines.
2. Pursuant to the Risk-Based Compliance Monitoring and Enforcement Program, all entities will have an Inherent Risk Assessment completed to determine their Compliance Oversight Plans and the scope of their engagements. 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 to determine if its engagement will continue, be delayed, or be replaced by an alternate compliance monitoring method.
3. NERC has instructed all the Regional Entities to perform evaluations of internal controls as part of the compliance monitoring engagement process. This will add time to the monitoring process and increase workload.
4. The implementation of the entity Compliance Oversight Plans has resulted in (and is expected to continue to result in) more frequent touch points across each calendar year, especially in the O&P area, and increased workload.
5. ReliabilityFirst will continue to implement the guidance and process steps contained in the ERO Auditor Handbook and Checklist, and support the continued use and development of ERO auditor tools. ReliabilityFirst will 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.
6. ReliabilityFirst and NERC will continue to collaborate and define ongoing training needs, priorities, and implementation schedules for the compliance staff. Through NERC training

and other available training courses, ReliabilityFirst will provide the necessary training to continue to provide a credible, skilled, competent, and respected compliance monitoring staff.

7. ReliabilityFirst will continue to seek and implement initiatives to increase efficiencies and productivity. Staff will continue to collaborate with NERC as it develops an ERO Enterprise-wide audit management tool, which will improve the efficiency of monitoring processes and NERC oversight for all the Regions.
8. With the CIP Standards being revised, the ERO Enterprise continues to evaluate:
  - a. Whether the approved and ongoing changes in the CIP 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.

9. The increased complexity of the CIP Standards, and the substantial increase of assets within scope for the CIP Standards has increased the workload for CIP auditors. Moreover, the time required to complete onsite CIP 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 CIP audits, and has added workload in the CIP Monitoring area that is expected to continue. The supply chain management Reliability Standard that is currently being developed is also expected to add workload in the CIP Monitoring area.

The ongoing revisions of the CIP Standards has 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 CIP Standards

10. A Technical Feasibility Exception (TFE) Task Force was formed to assure consistency in the administration of TFE requests and to support the preparation of the TFE annual report submitted to FERC. The immediate impact of required changes will be determined as the TFE Task Force moves forward. ReliabilityFirst will continue to support the TFE program with existing CIP staff and will monitor the impact, which will guide the development of any future resource recommendations.
11. CIP Staff will support ERO and regional outreach and training efforts including the NERC Security Reliability Program, CIP Small Group Advisory Sessions, ReliabilityFirst CIP Workshops, CIP Focus Group Sessions, and CIP-related Assist Visits.

**2020 Key Deliverables**

- Manage all compliance monitoring activities in a risk-based, fair, and consistent manner, affording all entities appropriate due process.
- Develop Compliance Oversight Plans for entities.
- Perform Internal Controls Evaluations as part of the compliance monitoring engagement process.
- Conduct thorough and professional compliance audits consistently with all Regions through the incorporation of the Auditor Handbook and Checklist. Audit teams will consist of staff supplemented, when necessary, by independent contractors.
- Prepare and distribute compliance monitoring process reports to NERC and Registered Entities.
- Ensure all auditors receive adequate training, meet all NERC auditor training requirements, and keep abreast of new and emerging technologies.
- Provide efficiencies in compliance monitoring processes through continued auditor training, development and enhancement of auditor tools, and process improvements.
- Support outreach activities, including two reliability workshops, monthly Reliability and Compliance Open Forum calls, bimonthly newsletter articles, CIP V5 Outreach Workshops and training sessions, Assist Visits (as needed), and provide Registered Entity assistance as required.
- 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 audits targeted for 2020 is defined below:
  - 17 CIP audits of entities (onsite).
    - These audits will be conducted on larger entities with High, Medium, and Low impact BES Cyber Systems.
  - CIP audits of entities with only Low impact BES Cyber Systems (approximately 20 per year) will begin in 2020. Historically these audits have been performed as off-site engagements, but it is anticipated that a number of these entities will need to be monitored on site. This will add additional workload to the CIP monitoring team.
- The number of Operations/Planning engagements planned for 2020 is defined below and will be based on the entity's Inherent Risk Assessment and risk the entity poses to the BES.
  - 5 audits of entities on the three year cycle (onsite).
  - 50 audits of entities based upon the Inherent Risk Assessment.
  - 30 other engagements of entities based upon the Compliance Oversight Plans, which include either Spot Checks and or Guided Self-Certifications.

- Spot Checks and Guided 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 Guided 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 Guided 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 2020 Key Assumptions, the workload in the O&P and CIP monitoring area has continually increased and is expected to continue increasing. This is driven by various factors, including the expanded CIP scope for entities with only Low Impact BES Cyber Systems, and the fact that more Compliance Oversight Plans also include Spot Checks or Guided Self-Certifications. Compliance monitoring teams now perform Internal Controls Evaluations as part of the compliance monitoring engagement process, which has added time and workload to engagements. Additionally, the MRRE program results in additional coordination and time to perform engagements.

With the increased workload described above, ReliabilityFirst is budgeting one additional FTE in the O&P monitoring area in 2020 and will continue to monitor this area closely for potential impact in the 2021 Business Plan & Budget.

- **Contractors and Consultants**

Contractor and consultant support is budgeted in 2020 to temporarily supplement staff in the event workload exceeds available resources. 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 Assurance and Compliance Monitoring Budget Detail**

The following table shows funding sources and related expenses for the Reliability Assurance and Compliance Monitoring section of the *2020 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Reliability Assurance and Compliance Monitoring</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirstFunding</b>					
ERO Assessments	\$ 13,747,063	\$ 13,747,063	\$ -	\$ 14,590,025	\$ 842,962
Penalty Sanctions	196,542	196,542	-	162,457	(34,084)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 13,943,605</b>	<b>\$ 13,943,605</b>	<b>\$ -</b>	<b>\$ 14,752,482</b>	<b>\$ 808,877</b>
Membership Dues	\$ -	\$ -	\$ -	\$ -	\$ -
Interest & Investment Income	30,032	30,032	-	30,351	319
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>13,973,637</b>	<b>13,973,637</b>	<b>-</b>	<b>14,782,833</b>	<b>809,196</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 6,588,226	\$ 6,588,226	\$ -	\$ 6,935,643	\$ 347,417
Payroll Taxes	403,367	403,367	-	427,127	23,760
Benefits	1,052,759	1,052,759	-	1,175,568	122,809
Retirement Costs	1,028,338	1,028,338	-	1,072,915	44,577
<b>Total Personnel Expenses</b>	<b>\$ 9,072,689</b>	<b>\$ 9,072,689</b>	<b>\$ -</b>	<b>\$ 9,611,252</b>	<b>\$ 538,563</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 20,900	\$ 20,900	\$ -	\$ 23,100	\$ 2,200
Travel	413,000	413,000	-	400,119	(12,881)
<b>Total Meeting Expenses</b>	<b>\$ 433,900</b>	<b>\$ 433,900</b>	<b>\$ -</b>	<b>\$ 423,219</b>	<b>\$ (10,681)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 88,950	\$ 88,950	\$ -	\$ 90,000	\$ 1,050
Office Rent	-	-	-	-	-
Office Costs	250,379	250,379	-	301,952	51,573
Professional Services	-	-	-	-	-
Miscellaneous	3,750	3,750	-	2,700	(1,050)
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 343,079</b>	<b>\$ 343,079</b>	<b>\$ -</b>	<b>\$ 394,652</b>	<b>\$ 51,573</b>
<b>Total Direct Expenses</b>	<b>\$ 9,849,668</b>	<b>\$ 9,849,668</b>	<b>\$ -</b>	<b>\$ 10,429,124</b>	<b>\$ 579,456</b>
<b>Indirect Expenses</b>	<b>\$ 3,996,063</b>	<b>\$ 3,996,063</b>	<b>\$ -</b>	<b>\$ 4,113,038</b>	<b>\$ 116,976</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 13,845,731</b>	<b>\$ 13,845,731</b>	<b>\$ -</b>	<b>\$ 14,542,162</b>	<b>\$ 696,431</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ 127,906</b>	<b>\$ 127,906</b>	<b>\$ -</b>	<b>\$ 240,671</b>	<b>\$ 112,765</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	30,000	30,000	-	10,000	(20,000)
Allocation of Fixed Assets	\$ 97,906	\$ 97,906	-	\$ 230,671	\$ 132,765
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 127,906</b>	<b>\$ 127,906</b>	<b>\$ -</b>	<b>\$ 240,671</b>	<b>\$ 112,765</b>
<b>Total Budget (= B + C)</b>	<b>\$ 13,973,637</b>	<b>\$ 13,973,637</b>	<b>\$ -</b>	<b>\$ 14,782,833</b>	<b>\$ 809,196</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>
<b>FTEs</b>	37.00	37.00	-	38.00	1.00

## Enforcement

<b>Enforcement</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	7.00	7.00	0.00
Direct Expenses	\$ 1,415,220	\$ 1,362,927	\$ (52,293)
Indirect Expenses	\$ 756,012	\$ 757,665	\$ 1,653
Inc(Dec) in Fixed Assets	\$ 18,523	\$ 42,492	\$ 23,969
Total Funding Requirement	\$ 2,189,755	\$ 2,163,084	\$ (26,671)

### 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 (a) FERC orders, rules, and regulations, (b) NERC ROP and Appendices, guidance, and ERO-wide program documents, and (c) ReliabilityFirst policies and procedures (collectively, “applicable orders, rules, and procedures”); and (5) performing 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 designated 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.

### **2020 Key Assumptions**

The Enforcement group incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. It also includes the following regional assumptions:

1. The number of CIP noncompliances may continue to increase, or at least remain steady, due to implementation of the CIP V5 Standards, which increased the scope of assets covered. The number of Operations and Planning noncompliances may increase due to revisions of certain Reliability Standards and new Reliability Standards becoming effective.
2. 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.
3. Complex, higher-risk noncompliances disposed as Settlement Agreements will require approximately 50% of Enforcement resources. These matters often involve more complex mitigation, increased regional interaction with the entities, and additional analysis regarding penalties and sanctions.
4. The Find Fix and Track (FFT) disposition method will be used for moderate risk issues. In those cases where justified, 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.
5. Enforcement staff will spend significant time ensuring adequate records are created for 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.
6. Recent activity relating to Freedom of Information Act requests will continue to affect the processing times for all noncompliance through permanent process changes that add additional processing time for each noncompliance (including noncompliance of all risk levels) as well as through additional work required on a case-by-case basis.

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; Regional Risk Assessments; Internal Control Evaluations); workshop presentations and participation in panel discussions; webinars; targeted entity training; identification and sharing of lessons learned; and contributions to the RF newsletter.

### **2020 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 with the Reliability Assurance group 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 Internal Controls Evaluations to assure informed decision-making.
- Draft and negotiate with entities all necessary disposition documents.
- Ensure all requisite notices are timely issued, and provide post-filing support and advocacy with NERC and FERC.
- Ensuring 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. 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.

Notwithstanding, ReliabilityFirst is not planning on adding FTE's in Enforcement in 2020, but will monitor this area and will reassess whether to add FTE's in the future as necessary.

- **Contractors and Consultants**

No contractor and consultant support is budgeted in this year.

**Enforcement Budget Detail**

The following table shows funding sources and related expenses for the Enforcement section of the *2020 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Enforcement</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirst Funding</b>					
ERO Assessments	\$ 2,146,889	\$ 2,146,889	\$ -	\$ 2,127,566	\$ (19,323)
Penalty Sanctions	37,184	37,184	-	29,926	(7,257)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 2,184,073</b>	<b>\$ 2,184,073</b>	<b>\$ -</b>	<b>\$ 2,157,493</b>	<b>\$ (26,580)</b>
Membership Dues	\$ -	\$ -	\$ -	\$ -	\$ -
Interest & Investment Income	5,682	5,682	-	5,591	(91)
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>2,189,755</b>	<b>2,189,755</b>	<b>-</b>	<b>2,163,084</b>	<b>(26,671)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 987,123	\$ 987,123	\$ -	\$ 981,241	\$ (5,882)
Payroll Taxes	64,657	64,657	-	66,278	1,621
Benefits	178,498	178,498	-	129,608	(48,891)
Retirement Costs	152,760	152,760	-	150,020	(2,739)
<b>Total Personnel Expenses</b>	<b>\$ 1,383,038</b>	<b>\$ 1,383,038</b>	<b>\$ -</b>	<b>\$ 1,327,147</b>	<b>\$ (55,891)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 1,600	\$ 1,600	\$ -	\$ 1,600	\$ -
Travel	23,000	23,000	-	28,000	5,000
<b>Total Meeting Expenses</b>	<b>\$ 24,600</b>	<b>\$ 24,600</b>	<b>\$ -</b>	<b>\$ 29,600</b>	<b>\$ 5,000</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	7,582	7,582	-	6,180	(1,402)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 7,582</b>	<b>\$ 7,582</b>	<b>\$ -</b>	<b>\$ 6,180</b>	<b>\$ (1,402)</b>
<b>Total Direct Expenses</b>	<b>\$ 1,415,220</b>	<b>\$ 1,415,220</b>	<b>\$ -</b>	<b>\$ 1,362,927</b>	<b>\$ (52,293)</b>
<b>Indirect Expenses</b>	<b>\$ 756,012</b>	<b>\$ 756,012</b>	<b>\$ -</b>	<b>\$ 757,665</b>	<b>\$ 1,653</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 2,171,232</b>	<b>\$ 2,171,232</b>	<b>\$ -</b>	<b>\$ 2,120,592</b>	<b>\$ (50,640)</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ 18,523</b>	<b>\$ 18,523</b>	<b>\$ -</b>	<b>\$ 42,492</b>	<b>\$ 23,969</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Allocation of Fixed Assets	\$ 18,523	\$ 18,523	-	\$ 42,492	\$ 23,969
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 18,523</b>	<b>\$ 18,523</b>	<b>\$ -</b>	<b>\$ 42,492</b>	<b>\$ 23,969</b>
<b>Total Budget (= B + C)</b>	<b>\$ 2,189,755</b>	<b>\$ 2,189,755</b>	<b>\$ -</b>	<b>\$ 2,163,084</b>	<b>\$ (26,671)</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>
FTEs	7.00	7.00	-	7.00	-

## Reliability Assessment and Performance Analysis Program

<b>Reliability Assessments and Performance Analysis Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	7.60	6.60	(1.00)
Direct Expenses	\$ 2,068,181	\$ 2,004,861	\$ (63,320)
Indirect Expenses	\$ 820,813	\$ 714,370	\$ (106,443)
Inc(Dec) in Fixed Assets	\$ 20,110	\$ 40,064	\$ 19,954
Total Funding Requirement	\$ 2,909,104	\$ 2,759,295	\$ (149,809)

### Program Scope and Functional Description

ReliabilityFirst's Reliability Assessment and Performance Analysis (RAPA) staff independently analyzes, assesses, and reports on the reliability and adequacy of the BES within the ReliabilityFirst footprint. RAPA staff helps identify and assess risks across the region, and its deliverables are a major contributor to the risk-based efforts of the entire organization. This 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. The RAPA program provides resources and data input for the technical analyses and support of the many risk-based activities described in the Reliability Assurance and Compliance Monitoring sections.

### 2020 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 and the ERO Enterprise Operating Plan.

There are no additional assumptions unique to the Reliability Assessment and Performance Program.

### 2020 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, produce 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 assessment studies, and produce reports on these transmission assessment studies.

- Collect data and produce 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 as needed for regional study efforts.
- Reporting Requirements
  - Annually submit Eastern Interconnection Reliability Assessment Group Multiregional Modeling Working Group power flow base cases and in-service dates for new transmission projects that are scheduled within the next two years for the US Department of Energy's EIA-411 report.
  - Assist NERC 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). All these systems can be used for data analytics across the ERO Enterprise.
- Other Requirements and Activities
  - Publish lessons learned that are developed from misoperation reporting and other sources.
  - 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.
  - Conduct initial and periodic Special Protection System reviews and maintain a database of regional Special Protection Systems.
  - Review under-frequency load shed (UFLS) information.
  - Review under-voltage load shed (UVLS) information.
  - Develop and maintain a linear contingency database for transmission assessment studies.
  - 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 Planning Committee, Operating Committee, and associated subgroups, as well as the ERO-RAPA Steering 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 and task forces. These groups provide technical advice, perform technical reviews, and provide input on emerging reliability issues. These groups also provide the opportunity for stakeholders to debate current issues, share lessons learned, and discuss success stories and near-misses in a technical forum.

- Provide the various regional technical groups with information and knowledge to help entities improve human performance. Conduct a human performance workshop.
- Provide Registered Entities with tailored training and interaction through recurring workshops (such as the Protection Workshop for Technical Personnel and training to the Protection Subcommittee by a relay vendor).
- Provide knowledge, techniques, and data input in support of ReliabilityFirst's risk-based activities, including the Inherent Risk Assessments and Regional Risk Assessment efforts.

### **Resource Requirements**

- **Personnel**

There is a net decrease of one FTE in this group. This decrease is due to the reallocation of a FTE for a data analyst position from the Reliability Assessment and Performance Analysis Program to the Situation Awareness and Infrastructure Security Program, for a database administrator position to support the ReliabilityFirst Data Warehouse.

- **Contractors and Consultants**

Contractor and consulting support is budgeted to support:

- ERAG steady state and dynamic base case model assembly through the Multiregional Modeling Working Group (MMWG) processes. This activity may transfer to the Eastern Interconnection Planning Collaborative (EIPC) in 2020. If so, ERAG would discontinue this activity and the associated contractor costs would not be needed in 2020.
- ERAG reviews of Planning Coordinator assessments.
- ERAG assessment studies.

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 *2020 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Reliability Assessment and Performance Analysis</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirstFunding</b>					
ERO Assessments	\$ 2,862,565	\$ 2,862,565	\$ -	\$ 2,725,807	\$ (136,758)
Penalty Sanctions	40,371	40,371	-	28,216	(12,154)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 2,902,935</b>	<b>\$ 2,902,935</b>	<b>\$ -</b>	<b>\$ 2,754,023</b>	<b>\$ (148,912)</b>
Membership Dues	-	-	-	-	-
Interest & Investment Income	6,169	6,169	-	5,272	(897)
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>2,909,104</b>	<b>2,909,104</b>	<b>-</b>	<b>2,759,295</b>	<b>(149,809)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 1,343,225	\$ 1,343,225	\$ -	\$ 1,293,434	\$ (49,791)
Payroll Taxes	82,910	82,910	-	76,570	(6,340)
Benefits	156,771	156,771	-	148,821	(7,950)
Retirement Costs	212,370	212,370	-	204,432	(7,937)
<b>Total Personnel Expenses</b>	<b>\$ 1,795,276</b>	<b>\$ 1,795,276</b>	<b>\$ -</b>	<b>\$ 1,723,257</b>	<b>\$ (72,019)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 8,000	\$ 8,000	\$ -	\$ 8,500	\$ 500
Travel	94,650	94,650	-	105,000	10,350
<b>Total Meeting Expenses</b>	<b>\$ 102,650</b>	<b>\$ 102,650</b>	<b>\$ -</b>	<b>\$ 113,500</b>	<b>\$ 10,850</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 126,812	\$ 126,812	\$ -	\$ 126,340	\$ (472)
Office Rent	-	-	-	-	-
Office Costs	43,443	43,443	-	41,564	(1,879)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	200	200
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 170,255</b>	<b>\$ 170,255</b>	<b>\$ -</b>	<b>\$ 168,104</b>	<b>\$ (2,151)</b>
<b>Total Direct Expenses</b>	<b>\$ 2,068,181</b>	<b>\$ 2,068,181</b>	<b>\$ -</b>	<b>\$ 2,004,861</b>	<b>\$ (63,320)</b>
<b>Indirect Expenses</b>	<b>\$ 820,813</b>	<b>\$ 820,813</b>	<b>\$ -</b>	<b>\$ 714,370</b>	<b>\$ (106,443)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 2,888,994</b>	<b>\$ 2,888,994</b>	<b>\$ -</b>	<b>\$ 2,719,231</b>	<b>\$ (169,763)</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ 20,110</b>	<b>\$ 20,110</b>	<b>\$ -</b>	<b>\$ 40,064</b>	<b>\$ 19,954</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>					
Allocation of Fixed Assets	\$ 20,110	\$ 20,110	-	\$ 40,064	\$ 19,954
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 20,110</b>	<b>\$ 20,110</b>	<b>\$ -</b>	<b>\$ 40,064</b>	<b>\$ 19,954</b>
<b>Total Budget (= B + C)</b>	<b>\$ 2,909,104</b>	<b>\$ 2,909,104</b>	<b>\$ -</b>	<b>\$ 2,759,295</b>	<b>\$ (149,809)</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>
FTEs	7.60	7.60	-	6.60	(1.00)

## Training, Education, and Operator Certification Program

Training, Education and Operator Certification Program (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	3.00	3.00	0.00
Direct Expenses	\$ 768,893	\$ 839,103	\$ 70,210
Indirect Expenses	\$ 324,005	\$ 324,714	\$ 708
Inc(Dec) in Fixed Assets	\$ 17,938	\$ 18,211	\$ 273
Total Funding Requirement	\$ 1,110,836	\$ 1,182,027	\$ 71,191

### 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 and Education Program focuses on providing relevant training to entities operating in the ReliabilityFirst region. ReliabilityFirst's training 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 is provided by the Regional Transmission Organizations within the Region.

### 2020 Key Assumptions

The Training and Education Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan.

There are no additional assumptions unique to the ReliabilityFirst Training and Education Program.

### 2020 Key Deliverables

- Industry Education
  - ReliabilityFirst will continue its education efforts to help entities achieve excellence in reliability, risk identification, security, and resiliency. These activities include:
    - The issuance of announcements, newsletters, and reports on key reliability, security, and resiliency issues facing ReliabilityFirst and the industry.
    - Communication of key risks and risk mitigation strategies, including risk harm assessment methodologies.
    - In concert with the ERO Event Analysis team, the development and publishing of lessons learned/best practices from system events and disturbances.
    - Guidance on the CIP V5 Reliability Standards, including a focus on "Low Impact Only" entities, and on other new and revised Reliability Standards.

- Guidance on the implementation of the Risk-Based Compliance Monitoring and Enforcement Program, including on Inherent Risk Assessments and Internal Controls Evaluations.
  - Identification and communication of common themes and root causes of Reliability Standard violations.
  - Efforts to better prepare entities for compliance audits and enforcement activities.
  - Open compliance and enforcement calls that cover a span of compliance, CIP V5 transition, and enforcement related topics.
  - Sharing best practices concerning generator plant winter readiness.
  - Webinars on the compliance monitoring and enforcement process.
  - Increased focus on any lessons learned or trends identified from reliability assessments.
  - Posting educational materials on the ReliabilityFirst public website on pertinent reliability, risk, security, and resiliency topics.
- Industry Workshops
    - Continue workshops and forums to allow for free exchange of information between ReliabilityFirst and its stakeholders. Workshops and forums will focus on understanding and mitigating risks to reliability, security, and resiliency within the ReliabilityFirst footprint. Workshops to be conducted include:
      - Two Reliability workshops (spring and fall) to promote a culture of reliability focusing on security, resiliency, risk management, internal controls, and targeted discussion on methods to demonstrate compliance.
      - Open forums to provide insight into new Reliability Standards developed and approved by the industry, changes in the Compliance Monitoring and Enforcement Program, communications with our registered entities around identified and emerging risks, Critical Infrastructure Protection issues, trends that could develop into a risk or other topics requested by entities.
      - CIP Standards Workshop to provide insight into the evolution of these Standards and to provide a forum for entities to share thoughts, problems, and solutions.
      - 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 workshops to address emerging risks (e.g., misoperations, fuel security, changing generation mix, and cyber security technology) as the need is identified and the sessions can be scheduled.

**Resource Requirements**

- **Personnel**

No increase in personnel is budgeted in this year.

- **Contractors and Consultants**

Contractor and consultant support is budgeted in 2020 to assist with continuous improvement initiatives aimed at helping entities achieve excellence in reliability, risk identification, security, and resiliency.

## Training, Education, 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 *2020 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Training, Education, and Operator Certification Program</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirstFunding</b>					
ERO Assessments	\$ 1,092,466	\$ 1,092,466	\$ -	\$ 1,166,805	\$ 74,340
Penalty Sanctions	15,936	15,936	-	12,826	(3,110)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 1,108,401</b>	<b>\$ 1,108,401</b>	<b>\$ -</b>	<b>\$ 1,179,631</b>	<b>\$ 71,230</b>
Membership Dues	-	-	-	-	-
Interest & Investment Income	2,435	2,435	-	2,396	(39)
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>1,110,836</b>	<b>1,110,836</b>	<b>-</b>	<b>1,182,027</b>	<b>71,191</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 386,731	\$ 386,731	\$ -	\$ 403,722	\$ 16,991
Payroll Taxes	24,369	24,369	-	25,768	1,399
Benefits	80,980	80,980	-	90,751	9,771
Retirement Costs	61,091	61,091	-	62,209	1,118
<b>Total Personnel Expenses</b>	<b>\$ 553,171</b>	<b>\$ 553,171</b>	<b>\$ -</b>	<b>\$ 582,451</b>	<b>\$ 29,280</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 181,500	\$ 181,500	\$ -	\$ 211,000	\$ 29,500
Travel	6,000	6,000	-	10,000	4,000
<b>Total Meeting Expenses</b>	<b>\$ 187,500</b>	<b>\$ 187,500</b>	<b>\$ -</b>	<b>\$ 221,000</b>	<b>\$ 33,500</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 20,000	\$ 20,000	\$ -	\$ 30,000	\$ 10,000
Office Rent	-	-	-	-	-
Office Costs	8,222	8,222	-	5,652	(2,570)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 28,222</b>	<b>\$ 28,222</b>	<b>\$ -</b>	<b>\$ 35,652</b>	<b>\$ 7,430</b>
<b>Total Direct Expenses</b>	<b>\$ 768,893</b>	<b>\$ 768,893</b>	<b>\$ -</b>	<b>\$ 839,103</b>	<b>\$ 70,210</b>
<b>Indirect Expenses</b>	<b>\$ 324,005</b>	<b>\$ 324,005</b>	<b>\$ -</b>	<b>\$ 324,714</b>	<b>\$ 708</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,092,898</b>	<b>\$ 1,092,898</b>	<b>\$ -</b>	<b>\$ 1,163,816</b>	<b>\$ 70,918</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ 17,938</b>	<b>\$ 17,938</b>	<b>\$ -</b>	<b>\$ 18,211</b>	<b>\$ 273</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>10,000</b>	<b>10,000</b>	<b>-</b>	<b>-</b>	<b>(10,000)</b>
Allocation of Fixed Assets	\$ 7,938	\$ 7,938	-	\$ 18,211	\$ 10,273
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 17,938</b>	<b>\$ 17,938</b>	<b>\$ -</b>	<b>\$ 18,211</b>	<b>\$ 273</b>
<b>Total Budget (= B + C)</b>	<b>\$ 1,110,836</b>	<b>\$ 1,110,836</b>	<b>\$ -</b>	<b>\$ 1,182,027</b>	<b>\$ 71,191</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>FTEs</b>	3.00	3.00	-	3.00	-

## Situation Awareness and Infrastructure Security Program

<b>Situation Awareness and Infrastructure Security Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	7.00	8.00	1.00
Direct Expenses	\$ 1,690,591	\$ 1,849,158	\$ 158,567
Indirect Expenses	\$ 756,012	\$ 865,903	\$ 109,891
Inc(Dec) in Fixed Assets	\$ 18,523	\$ 48,562	\$ 30,040
Total Funding Requirement	\$ 2,465,125	\$ 2,763,623	\$ 298,498

### Program Scope and Functional Description

In support of the ERO, the Situation Awareness and Infrastructure Security staff, in coordination with members of the Reliability Assessment and Performance Analysis and Reliability Assurance groups, monitors present conditions on and emerging threats to the BES. The Situation Awareness and Infrastructure Security staff also performs event analysis for system disturbances and events. During the event analysis process, ReliabilityFirst works 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.

The Situation Awareness and Infrastructure Security activity continues to evolve to provide the tools and information required by the staff and stakeholders to promote infrastructure protection. The Situation Awareness and Infrastructure Security program area addresses two separate but related functions, Situation Awareness and Critical Infrastructure Protection (CIP).

The Situation Awareness and Infrastructure Security program supports the ReliabilityFirst staff and Registered Entities in understanding potential threats to the electricity sector, implementing Reliability Standards developed to reinforce infrastructure security, maintaining an awareness of conditions on the BES, and identifying potential and emerging threats to the BES.

In 2018, as part of a corporate reorganization, the Situation Awareness and Infrastructure Security Program expanded to include Analytics and Configuration Management functions, which support the entire ReliabilityFirst organization. This consolidation of Analytics, Configuration Management, and Situation Awareness will improve the timeliness and value of information used by ReliabilityFirst in its focus on risk-based reliability.

### 2020 Key Assumptions

The Situation Awareness and Infrastructure Security Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. It also includes 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. ReliabilityFirst will participate in these exercises as appropriate.

2. ReliabilityFirst Situation Awareness and Infrastructure Security staff will monitor projects related to grid resilience and security such as the Cyber Resilient Energy Delivery Consortium. Staff will participate in these projects as appropriate, incorporate lessons learned from these projects into ReliabilityFirst's tools and processes, and share lessons learned with entities as appropriate.
3. The Analytics and Configuration Management functions were recently transferred from the Reliability Assurance and Compliance Monitoring program, in order to align advanced analytical capabilities and configuration management principles with activities connected to event analysis, situational awareness, and emerging threats. Analytics continues to mature as a service across the entire organization. The intent of the Analytics program at ReliabilityFirst is to develop and evolve the corporation's statistical analysis capabilities and use of data to gain a better understanding of the risks facing the industry. ReliabilityFirst is poised to integrate Analytics as a key component of the risk based decision-making strategy adopted by ReliabilityFirst. ReliabilityFirst also continues to evolve the Configuration Management program, which organizes and manages changes to ReliabilityFirst's complete library of data, documents, software, and hardware.
4. In 2017, ReliabilityFirst initiated a project to create a Data Warehouse for information storage and retrieval. Initially, this project resided with the Risk Analysis and Mitigation group. With the reorganization that occurred at the beginning of 2018 emphasizing the risk-related activities of the Situation Awareness and Infrastructure Protection function at ReliabilityFirst, oversight responsibility for the Data Warehouse was transitioned to the Situation Awareness and Infrastructure Protection group. This Data Warehouse will consolidate information from across the organization in one central repository where it can be accessed to perform analytics and trending to assist in the identification of emerging threats to the BPS.

## **2020 Key Deliverables**

- Support of the ReliabilityFirst Critical Infrastructure Protection Committee (CIPC)
  - The purpose of the ReliabilityFirst CIPC is to share information concerning CIP and to promote CIP within the Region. Situation Awareness and Infrastructure Security staff 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 Electricity Information Sharing and Analysis Center (E-ISAC), and the U.S. Department of Homeland Security (U.S. DHS) to the CIPC as permitted. Staff 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 Situation Awareness and Infrastructure Security staff will



provide training, guidance, and oversight to the ReliabilityFirst staff, particularly the Information Technology staff, in achieving compliance to these Standards.

- Provide Information on CIP-Related Issues
  - This activity 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.
  - Situation Awareness and Infrastructure Security staff will work with members of the NERC CIPC, E-ISAC, and NERC staff to develop a robust messaging system for dissemination of CIP-related messages to the appropriate target audience and will promote the use of this messaging system for exchange of security-related information.
- Monitor the Health of the BES
  - The use of situation awareness tools by staff has been evolving over the last few years. Situation Awareness and Infrastructure Security staff continues to participate in the Situation Awareness for FERC, NERC, and the Regional Entities (SAFNR) project and uses the SAFNRv2 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), System Data eXchange (SDX), Area Control Error (ACE), Mozenda, Babel Street, and Abnormal Frequency System Monitoring, in addition to SAFNR Version 2, to monitor the health of the BES within the ReliabilityFirst geographical area. In addition to the tools just mentioned, ReliabilityFirst continues to investigate other tools for monitoring the grid.
- Facilitate the ReliabilityFirst Threats and Vulnerabilities Team
  - In early 2014, ReliabilityFirst created a cross-functional team of subject matter experts to monitor, quantify, and assess new and emerging threats to the BES. The team continues to mature the tools and techniques used to perform this activity in support of the Reliability Assurance program. In 2020, the team will continue to enhance its ability to collect and analyze data, leveraging the Analytics program to better identify and quantify emerging threats to the BES and to provide additional input to the ReliabilityFirst Regional Risk Assessment program. Tools used to quantify threats will continue to be assessed for applicability to the work of the Threats and Vulnerabilities Team.
- 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-13) evolve, entities will continue to monitor and implement revisions to the Standards. Situation Awareness and Infrastructure Security staff 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.
- Support the Compliance Monitoring and Enforcement Program
  - Support the activities involving CIP-related issues and events in the Compliance Monitoring and Enforcement program, by providing expertise on CIP monitoring, mitigation plans and settlements that include assessment of compliance to the CIP Standards (CIP-002 - CIP-014).
- Collect, validate, review, and analyze data for system events and disturbances as described in the NERC ERO Event Analysis Process and the ReliabilityFirst Event Analysis Process.
  - 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.
- Lead the development and integration of advanced analytic & business intelligence capabilities for identifying and determining reliability risks and conducting various risk assessments (e.g., Regional Risk Assessments and explorative Probabilistic Risk Assessment).
- 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 RAPA 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 Assurance and Monitoring, Enforcement, and Legal, to explore and develop analytical solutions, where applicable.

- Lead the development and integration of Data Warehousing Governance, Management, and underlying databases.
- Lead further integration and use of Configuration Management within ReliabilityFirst.
- 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**

As discussed above in the 2020 Key Assumptions section, ReliabilityFirst moved oversight responsibility for the development and ongoing management of the Data Warehouse. To support this move and provide personnel resources for this activity, in 2019 an existing FTE position was reallocated from the Reliability Assessment and Performance Analysis Program to the Situation Awareness and Infrastructure Security group. At this time, no additional FTEs are planned. In the event the workload exceeds available resources, contractors may be used to temporarily supplement staff.

- **Contractors and Consultants**

Minimal contractor support is budgeted in the event it is needed to augment the ReliabilityFirst Data Warehouse project. The Data Warehouse project is intended to centralize ReliabilityFirst's data sets and provide business intelligence capabilities for better integration of disparate data sets and add visualization functions to better identify areas of concern or areas needing additional analysis. 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.

## Situation Awareness and Infrastructure Security Program Budget Detail

The following table shows funding sources and related expenses for the Situation Awareness and Infrastructure Security section of the *2020 Business Plan and Budget*. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Situation Awareness and Infrastructure Security</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirstFunding</b>					
ERO Assessments	\$ 2,422,260	\$ 2,422,260	\$ -	\$ 2,723,032	\$ 300,772
Penalty Sanctions	37,184	37,184	-	34,202	(2,982)
<b>Total ReliabilityFirst Funding</b>	<b>\$ 2,459,443</b>	<b>\$ 2,459,443</b>	<b>\$ -</b>	<b>\$ 2,757,233</b>	<b>\$ 297,790</b>
Membership Dues	-	-	-	-	-
Interest & Investment Income	5,682	5,682	-	6,390	708
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>2,465,125</b>	<b>2,465,125</b>	<b>-</b>	<b>2,763,623</b>	<b>298,498</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 1,056,516	\$ 1,056,516	\$ -	\$ 1,197,457	\$ 140,941
Payroll Taxes	64,475	64,475	-	75,674	11,199
Benefits	217,786	217,786	-	259,583	41,797
Retirement Costs	166,948	166,948	-	185,074	18,126
<b>Total Personnel Expenses</b>	<b>\$ 1,505,725</b>	<b>\$ 1,505,725</b>	<b>\$ -</b>	<b>\$ 1,717,788</b>	<b>\$ 212,063</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 2,000	\$ 2,000	\$ -	\$ 3,400	\$ 1,400
Travel	49,450	49,450	-	54,800	5,350
<b>Total Meeting Expenses</b>	<b>\$ 51,450</b>	<b>\$ 51,450</b>	<b>\$ -</b>	<b>\$ 58,200</b>	<b>\$ 6,750</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 90,000	\$ 90,000	\$ -	\$ 32,500	\$ (57,500)
Office Rent	-	-	-	-	-
Office Costs	43,416	43,416	-	40,670	(2,746)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 133,416</b>	<b>\$ 133,416</b>	<b>\$ -</b>	<b>\$ 73,170</b>	<b>\$ (60,246)</b>
<b>Total Direct Expenses</b>	<b>\$ 1,690,591</b>	<b>\$ 1,690,591</b>	<b>\$ -</b>	<b>\$ 1,849,158</b>	<b>\$ 158,567</b>
<b>Indirect Expenses</b>	<b>\$ 756,012</b>	<b>\$ 756,012</b>	<b>\$ -</b>	<b>\$ 865,903</b>	<b>\$ 109,891</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 2,446,603</b>	<b>\$ 2,446,603</b>	<b>\$ -</b>	<b>\$ 2,715,061</b>	<b>\$ 268,458</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ 18,523</b>	<b>\$ 18,523</b>	<b>\$ -</b>	<b>\$ 48,562</b>	<b>\$ 30,040</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>					
Allocation of Fixed Assets	\$ 18,523	\$ 18,523	-	\$ 48,562	\$ 30,040
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 18,523</b>	<b>\$ 18,523</b>	<b>\$ -</b>	<b>\$ 48,562</b>	<b>\$ 30,040</b>
<b>Total Budget (= B + C)</b>	<b>\$ 2,465,125</b>	<b>\$ 2,465,125</b>	<b>\$ -</b>	<b>\$ 2,763,623</b>	<b>\$ 298,498</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	7.00	7.00	-	8.00	1.00

## Administrative Services

Administrative Services (in whole dollars)						
	Direct Expenses and Fixed Assets			FTEs		
	2019 Budget	2020 Budget	Increase (Decrease)	2019 Budget	2020 Budget	Increase (Decrease)
General and Administrative	\$ 2,395,261	\$ 2,647,602	\$ 252,342	3.00	3.00	0.00
Legal and Regulatory	\$ 999,969	\$ 1,051,930	\$ 51,961	3.00	3.00	0.00
Information Technology	\$ 1,814,287	\$ 1,643,308	\$ (170,979)	6.00	6.00	0.00
Human Resources	\$ 917,081	\$ 1,059,382	\$ 142,300	2.00	2.00	0.00
Finance and Accounting	\$ 689,307	\$ 753,467	\$ 64,161	2.60	2.75	0.15
Total Administrative Services	\$ 6,815,905	\$ 7,155,690	\$ 339,785	16.60	16.75	0.15

### 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 2020 Business Plan and Budget. Explanations of variances by expense category are included with the Supplemental Financial Tables found in Section B.

<b>2019 Budget and Projection, and 2020 Budget</b>					
<b>Administrative Services</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Over(Under)
<b>Funding</b>					
<b>ReliabilityFirstFunding</b>					
ERO Assessments	\$ (1,015,412)	\$ (1,015,412)	\$ -	\$ (1,014,613)	\$ 799
Penalty Sanctions	-	-	-	-	-
<b>Total ReliabilityFirst Funding</b>	<b>\$ (1,015,412)</b>	<b>\$ (1,015,412)</b>	<b>\$ -</b>	<b>\$ (1,014,613)</b>	<b>\$ 799</b>
Membership Dues	\$ -	\$ -	\$ -	\$ -	\$ -
Interest & Investment Income	-	-	-	-	-
Miscellaneous Income	-	-	-	-	-
<b>Total Funding (A)</b>	<b>(1,015,412)</b>	<b>(1,015,412)</b>	<b>-</b>	<b>(1,014,613)</b>	<b>799</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 3,339,566	\$ 3,339,566	\$ -	\$ 3,378,111	\$ 38,545
Payroll Taxes	167,306	167,306	-	175,373	8,067
Benefits	620,207	620,207	-	689,272	69,064
Retirement Costs	631,243	631,243	-	664,103	32,860
<b>Total Personnel Expenses</b>	<b>\$ 4,758,323</b>	<b>\$ 4,758,323</b>	<b>\$ -</b>	<b>\$ 4,906,859</b>	<b>\$ 148,536</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	152,400	152,400	\$ -	\$ 129,540	\$ (22,860)
Travel	92,500	92,500	-	100,000	7,500
<b>Total Meeting Expenses</b>	<b>\$ 244,900</b>	<b>\$ 244,900</b>	<b>\$ -</b>	<b>\$ 229,540</b>	<b>\$ (15,360)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	202,850	202,850	\$ -	\$ 202,275	\$ (575)
Office Rent	521,086	521,086	-	539,292	18,206
Office Costs	462,088	462,088	-	414,382	(47,706)
Professional Services	423,522	423,522	-	442,483	18,961
Miscellaneous	40,136	40,136	-	40,859	723
<b>Total Operating Expenses, excluding Depreciation</b>	<b>\$ 1,649,682</b>	<b>\$ 1,649,682</b>	<b>\$ -</b>	<b>\$ 1,639,291</b>	<b>\$ (10,391)</b>
<b>Total Direct Expenses</b>	<b>\$ 6,652,905</b>	<b>\$ 6,652,905</b>	<b>\$ -</b>	<b>\$ 6,775,690</b>	<b>\$ 122,785</b>
<b>Indirect Expenses</b>	<b>\$ (6,652,905)</b>	<b>\$ (6,652,905)</b>	<b>\$ -</b>	<b>\$ (6,775,690)</b>	<b>\$ (122,785)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ (1,015,412)</b>	<b>\$ (1,015,412)</b>	<b>\$ -</b>	<b>\$ (1,014,613)</b>	<b>\$ 799</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	163,000	163,000	-	380,000	217,000
Allocation of Fixed Assets	\$ (163,000)	\$ (163,000)	-	\$ (380,000)	\$ (217,000)
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Budget (= B + C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 0</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ (1,015,412)</b>	<b>\$ (1,015,412)</b>	<b>\$ -</b>	<b>\$ (1,014,613)</b>	<b>\$ 799</b>
<b>FTEs</b>	16.60	16.60	-	16.75	0.15

## **General and Administrative**

### **Program Scope and Functional Description**

The General and Administrative Department consists of the President and CEO, Senior Vice President and Treasurer, and 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, performing the Corporate Treasurer function, and managing relationships with governmental agencies, regulators, members, stakeholders, and other industry organizations.

### **2020 Key Assumptions & Deliverables**

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.

There are no additional assumptions or deliverables unique to the General and Administrative Program.

### **Resource Requirements**

- **Personnel**

No increase in personnel is budgeted in this year.

- **Contractors and Consultants**

No contractor and consultant support is budgeted in this year.

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## 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 the States); (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 department 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; supporting internal and external audits of the corporation; drafting, reviewing, and maintaining the corporation's contracts, policies and procedures, and governance documents; and overseeing all regulatory filings and interactions.

Second, the department is responsible for ReliabilityFirst's regulatory affairs. This includes communication and outreach to FERC, NERC, and the States on specific issues relating to ReliabilityFirst and/or the performance of its delegated functions; working to ensure the consistent application of ERO-wide programs and initiatives across NERC and the Regions; advising senior executives on various strategic and tactical initiatives for the corporation in light of the regulatory landscape; and advocating and advancing ReliabilityFirst's mission and strategic initiatives in a clear and articulate manner.

Third, the department is responsible for ReliabilityFirst's external affairs. This includes communication and outreach to ReliabilityFirst's stakeholders, the general public, and media. This work concerns media relations, and the issuance of announcements, newsletters, and reports on key issues facing the corporation and the industry. This work generally ensures that ReliabilityFirst clearly communicates and shares relevant and timely information to help enhance the reliability of the BES.

Finally, the department 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.

### 2020 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 and the ERO Enterprise Operating Plan. There are no additional assumptions or deliverables unique to the Legal and Regulatory Affairs Program.



**2020 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.
- Perform the external affairs function for the corporation.
- 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.
- Work to ensure the consistent application of ERO-wide programs and initiatives across NERC and the Regions, including its leadership role in the MRRE program.
- Provide legal support and perform the Corporate Secretary function for the Board of Directors and support the corporate governance needs of the organization. This work includes creating and issuing the Board materials prior to Board meetings, providing legal advice as needed during the Board and Committee meetings, and recording minutes for the Board and Committee meetings.

**Resource Requirements**

- **Personnel**

No increase in personnel is budgeted in this year.

- **Contractors and Consultants**

Contractor and consultant support is budgeted in 2020 for executive coaching services.

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## 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)
- Website Hosting and Internal Portal
- 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'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 seventh year of operation. Operational experience to date has been excellent and believed 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.

### **2020 Key Assumptions**

The IT Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan. This includes the support for building and implementing centralized enterprise applications for the ERO. The IT Program includes the following regional assumptions:

1. Maintain a high-level security posture across the company-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.

### **2020 Key Deliverables**

- 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 company-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.
- Perform Security Exercises using external vendor to evaluate the corporation's Security Maturity Level for implemented controls, processes, and detectable vulnerabilities.

- 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**

No increase in personnel is budgeted in this year.

- **Contractors and Consultants**

Contractors and consultant support is budgeted for 2020 as needed for network maintenance projects, security simulation activities, enhancing data management systems, and development support of external-facing solutions for reliability and resiliency initiatives.

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## 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 resource, the staff. The ODHR department is responsible for the attraction and retention of employees, employee development through performance management and training initiatives, policy and procedure development and adherence measures, as well as compensation and benefits administration. The department is also responsible for strategic organization alignment and design, organizational analysis and succession planning, the delivery of learning and development interventions, and driving change management practices for improving organizational performance. The ODHR department oversees the organization's innovation efforts, corporate goals, corporate strategic plan and enterprise risk management program. 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 80 individuals including two part-time positions equaling one (1.15) FTE, which brings the total to an equivalent of 79.35 FTEs. 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.

### 2020 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 and the ERO Enterprise Operating Plan.

There are no additional assumptions unique to the ReliabilityFirst Organizational Development & Human Resources Program.

### 2020 Key Deliverables

- Recruit highly skilled and excellent employees.
- 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).
  - Participate in knowledge management process to gather and utilize expertise from staff subject matter experts.

- Explore, develop, and provide training on tools to further enhance staff efficiency and effectiveness.
- Review and manage employee benefits.
- Review succession plans.
- 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.
- Operationalize strategic initiatives across the organization, including the corporate Enterprise Risk program.
- Oversee and coordinate innovation efforts across the company.

**Resource Requirements**

- **Personnel**

No increase in personnel is budgeted in this year.

- **Contractors and Consultants**

Contractors and consultant support is budgeted in 2020 for executive coaching, third party recruiting, and temporary administrative services.

## 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, and making meaningful financial information available to decision makers. The Finance and Accounting department is responsible for directing the complete cycle of the financial management activities of ReliabilityFirst, 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; and
- Supporting ReliabilityFirst in risk assessment activities from a financial perspective.

### 2020 Key Assumptions

The Finance and Accounting Program incorporates the regional specific strategic and operating objectives set forth in the ERO Enterprise Long Term Strategy and the ERO Enterprise Operating Plan.

There are no additional assumptions unique to the Finance and Accounting Program.

### 2020 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 from a financial perspective.
- Perform financial related internal control reviews and internal audit reviews.

### **Resource Requirements**

- **Personnel**

There is a 0.15 increase in FTEs budgeted in this year, to properly reflect the actual hours being expended to perform the activities in this department.

- **Contractors and Consultants**

Contractors and consultant support is budgeted in 2020 for continuous improvement projects.



## **Section B: Supplemental Financial Information**

**Table B-1: Working Capital and Operating Reserve Analysis**

Working Capital and Operating Reserve Analysis 2019-2020			
STATUTORY			
	Total	Working Capital and Working Capital Reserve	Operating Reserve
<b>Beginning Reserve Balances, January 1, 2019</b>	4,874,322	3,874,322	1,000,000
Plus: Penalty Funds Released from Restriction January 1, 2019	327,215	327,215	
Plus: 2019 ReliabilityFirst Funding (from LSEs or designees)	21,255,831	21,255,831	
Plus: 2019 Other funding sources	50,000	50,000	
Less: 2019 Projected expenses & capital expenditures	(22,648,458)	(22,648,458)	
Other Adjustments to Reserves <sup>1</sup>	(158,074)	(158,074)	
<b>Projected Working Capital and Operating Reserves, December 31, 2019</b>	<b>3,700,836</b>	<b>2,700,836</b>	<b>1,000,000</b>
Targeted Working Capital and Operating Reserves, December 31, 2020 <sup>3</sup>	2,528,149	1,528,149	1,000,000
Less: Projected Working Capital and Operating Reserves, December 31, 2019	(3,700,836)	(2,700,836)	(1,000,000)
<b>Total Adjustments to Reserves</b>	<b>(1,172,687)</b>	<b>(1,172,687)</b>	<b>0</b>
2020 Expenses and Capital Expenditures	23,650,862		
Less: Penalty Sanctions <sup>2</sup>	(267,627)		
Less: Other Funding Sources	(50,000)		
Adjustment to Achieve Reserve Balances	(1,172,687)		
Other Adjustments to Reserve <sup>1</sup>	158,074		
<b>2020 ReliabilityFirst Assessment</b>	<b>22,318,623</b>		

<sup>1</sup> 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.

<sup>2</sup> Represents penalty sanctions collected from July 1, 2018 to June 30, 2019.

<sup>3</sup> The Operating and Working Capital Reserves were approved by the ReliabilityFirst Board of Directors on March 14, 2019 and April 24, 2019, respectively.

### 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 2020, \$1,173K of the working capital reserve is being utilized to offset the assessment and minimize the variance from the 2019 assessment. The Targeted Working Capital balance of \$1,528K 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 14, 2019, the ReliabilityFirst Board approved a \$1,000,000 operating reserve, which is consistent with ReliabilityFirst policy, is the same amount budgeted in the 2019 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**

<b>Penalty Sanctions Received Between July 1, 2018 and June 30, 2019</b>	
Dates Received	Amount Received
8/31/2018	118,627
Collected July 1, 2018 to December 31, 2018	<u>118,627</u>
2/14/2019	34,000
5/1/2019	75,000
5/28/2019	40,000
Collected January 1, 2019 to June 30, 2019	<u>149,000</u>
<b>Total</b>	<b><u>267,627</u></b>

**Allocation Method**

Penalty monies received have been allocated based upon the number of FTEs to the following direct programs to reduce assessments:

- Reliability Assurance and Compliance Monitoring;
- Enforcement;
- Reliability Assessments and Performance Analysis;
- Training, Education and Operator Certification; and
- Situation Awareness and Infrastructure Security

**Table B-3: Supplemental Funding**

Outside Funding Breakdown By Program (excluding ReliabilityFirst Assessments & Penalty Sanctions)	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget
Interest Income	\$ 50,000	\$ 50,000	\$ 50,000	-
<b>Total Outside Funding</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- No significant variances requiring explanation.

**Table B-4: Personnel Expenses**

Personnel Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
<b>Salaries</b>					
Salaries	\$ 13,639,655	\$ 13,639,655	\$ 14,124,298	\$ 484,643	3.6%
Employment Agency Fees	-	-	-	-	-
Temporary Office Services	-	-	-	-	-
Vacation Expense	61,732	61,732	65,310	3,578	5.8%
<b>Total Salaries</b>	<b>\$ 13,701,387</b>	<b>\$ 13,701,387</b>	<b>\$ 14,189,608</b>	<b>\$ 488,221</b>	<b>3.6%</b>
<b>Total Payroll Taxes</b>	<b>\$ 807,085</b>	<b>\$ 807,085</b>	<b>\$ 846,791</b>	<b>\$ 39,705</b>	<b>4.9%</b>
<b>Benefits</b>					
Workers Compensation	\$ 15,000	\$ 15,000	\$ 17,000	\$ 2,000	13.3%
Medical Insurance	1,832,775	1,832,775	1,830,418	(2,357)	-0.1%
Life-LTD Insurance	111,523	111,523	123,038	11,515	10.3%
Training & Education	332,704	332,704	508,146	175,442	52.7%
Relocation	15,000	15,000	15,000	-	0.0%
<b>Total Benefits</b>	<b>\$ 2,307,002</b>	<b>\$ 2,307,002</b>	<b>\$ 2,493,602</b>	<b>\$ 186,601</b>	<b>8.1%</b>
<b>Retirement</b>					
Discretionary 401k Contribution	\$ 1,318,372	\$ 1,318,372	\$ 1,368,591	\$ 50,218	3.8%
Savings Plan	791,024	791,024	821,154	30,131	3.8%
Pension & Savings Admin	143,352	143,352	149,008	5,656	3.9%
<b>Total Retirement</b>	<b>\$ 2,252,748</b>	<b>\$ 2,252,748</b>	<b>\$ 2,338,753</b>	<b>\$ 86,005</b>	<b>3.8%</b>
<b>Total Personnel Costs</b>	<b>\$ 19,068,222</b>	<b>\$ 19,068,222</b>	<b>\$ 19,868,754</b>	<b>\$ 800,531</b>	<b>4.2%</b>
<b>FTEs</b>	78.20	78.20	79.35	1.15	1.5%
<b>Cost per FTE</b>					
Salaries	\$ 175,210	\$ 175,210	\$ 178,823	3,613	2.1%
Payroll Taxes	10,321	10,321	10,672	351	3.4%
Benefits	29,501	29,501	31,425	1,924	6.5%
Retirement	28,808	28,808	29,474	666	2.3%
<b>Total Cost per FTE</b>	<b>\$ 243,839</b>	<b>\$ 243,839</b>	<b>\$ 250,394</b>	<b>\$ 6,555</b>	<b>2.7%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- The increase in **Salaries** is due to the addition of 1.15 new FTEs, a 3% general wage increase, and promotions. Additionally, costs have been included to fund the plans to overlap key personnel who have indicated they are near retirement, to allow for adequate knowledge transfer, and training of their successors.
- The increase in **Life-LTD Insurance** is due to higher premium costs.
- The increase in **Training & Education** is due to the increased focus on developing and accelerating careers of current employees.

**Table B-5: Meeting Expenses**

Meeting Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	-
Reliability Assurance and Compliance Monitoring Enforcement	433,900	433,900	423,219	(10,681)	-2.5%
Reliability Assessment and Performance Analysis	24,600	24,600	29,600	5,000	20.3%
Training and Education	102,650	102,650	113,500	10,850	10.6%
Situation Awareness and Infrastructure Security	187,500	187,500	221,000	33,500	17.9%
Administrative Services	51,450	51,450	58,200	6,750	13.1%
	244,900	244,900	229,540	(15,360)	-6.3%
<b>Total Meeting Expenses</b>	<b>\$ 1,045,000</b>	<b>\$ 1,045,000</b>	<b>\$ 1,075,059</b>	<b>\$ 30,059</b>	<b>2.9%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- The increase in **Reliability Assessment and Performance Analysis** is a result of considering historical averages along with future travel expectations and assumptions.
- The increase in **Training and Education** is due to the addition of technical seminars aimed at addressing specific topics of interest and criticality to stakeholders.

**Table B-6: Consultants and Contracts**

Consultants & Contracts	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Reliability Assurance and Compliance Monitoring Enforcement	88,950	88,950	90,000	1,050	1.2%
Reliability Assessment and Performance Analysis	-	-	-	-	-
Training and Education	126,812	126,812	126,340	(472)	-0.4%
Situation Awareness and Infrastructure Security	20,000	20,000	30,000	10,000	50.0%
Administrative Services	90,000	90,000	32,500	(57,500)	-63.9%
	202,850	202,850	202,275	(575)	-0.3%
<b>Consultants &amp; Contracts Total</b>	<b>\$ 528,612</b>	<b>\$ 528,612</b>	<b>\$ 481,115</b>	<b>\$ (47,497)</b>	<b>-9.0%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- The increase in **Training and Education** is due to the activities aimed at helping entities achieve excellence in reliability, security, and resiliency.
- The decrease in **Situation Awareness and Infrastructure Security** is due to bringing Data Warehouse work previously performed by a contractor in house.

**Table B-7: Office Rent**

Office Rent	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Office Rent	\$ 437,530	\$ 437,530	437,532	\$ 2	0.0%
Data Center Rent	65,280	65,280	70,560	5,280	8.1%
Utilities	18,276	18,276	31,200	12,924	70.7%
	-	-		-	
<b>Total Office Rent</b>	<b>\$ 521,086</b>	<b>\$ 521,086</b>	<b>\$ 539,292</b>	<b>\$ 18,206</b>	<b>3.5%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- The increase in **Utilities** is due to higher monthly electric and operating expense charges.

**Table B-8: Office Costs**

Office Costs	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Telephone	\$ 76,422	\$ 76,422	\$ 76,272	\$ (150)	-0.2%
Internet	38,496	38,496	42,072	3,576	9.3%
Office Supplies	25,220	25,220	23,530	(1,690)	-6.7%
Computer Supplies and Maintenance	631,739	631,739	624,005	(7,734)	-1.2%
Publications & Subscriptions	13,793	13,793	15,180	1,387	10.1%
Dues	20,114	20,114	17,561	(2,553)	-12.7%
Postage	1,150	1,150	1,400	250	21.7%
Express Shipping	100	100	300	200	200.0%
Copying	2,604	2,604	3,000	396	15.2%
Stationary Forms	900	900	400	(500)	-55.6%
Equipment Repair/Service Contracts	3,992	3,992	6,080	2,088	52.3%
Bank Charges	600	600	-	(600)	-100.0%
Merchant Card Fees	-	-	600	600	-
<b>Total Office Costs</b>	<b>\$ 815,130</b>	<b>\$ 815,130</b>	<b>\$ 810,400</b>	<b>\$ (4,730)</b>	<b>-0.6%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- No significant variances requiring explanation.

**Table B-9: Professional Services**

Professional Services	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Independent Trustee Fees	\$ 246,050	\$ 246,050	\$ 262,950	\$ 16,900	6.9%
Outside Legal	20,000	20,000	15,000	(5,000)	-25.0%
Accounting & Auditing Fees	61,520	61,520	64,210	2,690	4.4%
Insurance Commercial	95,952	95,952	100,323	4,371	4.6%
<b>Total Services</b>	<b>\$ 423,522</b>	<b>\$ 423,522</b>	<b>\$ 442,483</b>	<b>\$ 18,961</b>	<b>4.5%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- No significant variances requiring explanation.

**Table B-10: Miscellaneous**

Miscellaneous Expense	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Miscellaneous	\$ 43,886	\$ 43,886	\$ 43,759	\$ (127)	-0.3%
<b>Total Miscellaneous Expense</b>	<b>\$ 43,886</b>	<b>\$ 43,886</b>	<b>\$ 43,759</b>	<b>\$ (127)</b>	<b>-0.3%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- No significant variances requiring explanation.

**Table B-11: Non-Operating Expenses**

Other Non-Operating Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment	-	-	-	-	-
Office Relocation	-	-	-	-	-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- No significant variances requiring explanation.



**Table B-12: Fixed Assets**

Fixed Assets	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Computer Hardware	\$ 120,000	\$ 120,000	\$ 75,000	\$ (45,000)	-37.5%
Computer Software	60,000	60,000	65,000	5,000	8.3%
Furniture & Fixtures	-	-	14,000	14,000	-
Leasehold Improvements	23,000	23,000	236,000	213,000	926.1%
<b>Total Fixed Assets</b>	<b>\$ 203,000</b>	<b>\$ 203,000</b>	<b>\$ 390,000</b>	<b>\$ 187,000</b>	<b>92.1%</b>

**Explanation of Significant Variances – 2019 Budget versus 2020 Budget**

- The decrease in **Computer Hardware** is due to the change in projects planned in 2020 compared to 2019.
- The increase in **Furniture & Fixtures** is the result of the office modifications.
- The increase in **Leasehold Improvements** is due to the office modifications needed to address the current and future growth of the organization.

Table B-13: 2021 and 2022 Projections

<b>Statement of Activities 2021 and 2022 Projections</b>							
	2020 Budget	2021 Projection	\$ Change 20 v 21	% Change 20 v 21	2022 Projection	\$ Change 21 v 22	% Change 21 v 22
<b>Funding</b>							
<b>ERO Funding</b>							
ERO Assessments	\$ 22,318,623	\$ 23,434,554	\$ 1,115,931	5.0%	\$ 24,606,281	\$ 1,171,727	5.0%
Penalty Sanctions	267,627	2,300,000	2,032,373	759%	300,000	(2,000,000)	-87.0%
<b>Total ERO Funding</b>	<b>\$ 22,586,250</b>	<b>\$ 25,734,554</b>	<b>\$ 3,148,304</b>	<b>13.9%</b>	<b>\$ 24,906,281</b>	<b>\$ (828,273)</b>	<b>-3.2%</b>
Membership Dues	-	-	-	-	-	-	-
Interest and Investment Income	50,000	50,000	-	0.0%	50,000	-	0.0%
Miscellaneous Income	-	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 22,636,250</b>	<b>\$ 25,784,554</b>	<b>\$ 3,148,304</b>	<b>13.9%</b>	<b>\$ 24,956,281</b>	<b>\$ (828,273)</b>	<b>-3.2%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 14,189,608	\$ 14,730,825	\$ 541,218	3.8%	\$ 15,452,409	\$ 721,584	4.9%
Payroll Taxes	846,791	862,361	15,570	1.8%	893,407	31,046	3.6%
Benefits	2,493,602	2,721,222	227,620	9.1%	2,949,863	228,641	8.4%
Retirement Costs	2,338,753	2,419,020	80,267	3.4%	2,529,915	110,895	4.6%
<b>Total Personnel Expenses</b>	<b>\$ 19,868,754</b>	<b>\$ 20,733,429</b>	<b>\$ 864,675</b>	<b>4.4%</b>	<b>\$ 21,825,594</b>	<b>\$ 1,092,165</b>	<b>5.3%</b>
<b>Meeting Expenses</b>							
Meetings & Conference Calls	\$ 377,140	\$ 388,454	\$ 11,314	3.0%	\$ 400,108	\$ 11,654	3.0%
Travel	697,919	715,367	17,448	2.5%	733,251	17,884	2.5%
<b>Total Meeting Expenses</b>	<b>\$ 1,075,059</b>	<b>\$ 1,103,821</b>	<b>\$ 28,762</b>	<b>2.7%</b>	<b>\$ 1,133,359</b>	<b>\$ 29,538</b>	<b>2.7%</b>
<b>Operating Expenses, excluding Depreciation</b>							
Consultants & Contracts	\$ 481,115	\$ 515,926	\$ 34,811	7.2%	\$ 581,085	\$ 65,159	12.6%
Office Rent	539,292	544,685	5,393	1.0%	550,132	5,447	1.0%
Office Costs	810,400	893,504	83,104	10.3%	861,689	(31,815)	-3.6%
Professional Services	442,483	446,908	4,425	1.0%	451,377	4,469	1.0%
Miscellaneous	43,759	44,196	438	1.0%	44,638	442	1.0%
<b>Total Operating Expenses, excluding Depreciation</b>	<b>2,317,049</b>	<b>2,445,220</b>	<b>128,170</b>	<b>5.5%</b>	<b>2,488,922</b>	<b>43,702</b>	<b>1.8%</b>
<b>Total Direct Expenses</b>	<b>\$ 23,260,862</b>	<b>\$ 24,282,470</b>	<b>\$ 1,021,608</b>	<b>4.4%</b>	<b>\$ 25,447,875</b>	<b>\$ 1,165,405</b>	<b>4.8%</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>Total Expenses (B)</b>	<b>\$ 23,260,862</b>	<b>\$ 24,282,470</b>	<b>\$ 1,021,608</b>	<b>4.4%</b>	<b>\$ 25,447,875</b>	<b>\$ 1,165,405</b>	<b>4.8%</b>
<b>Change in Net Assets (= A - B)</b>	<b>\$ (624,613)</b>	<b>\$ 1,502,084</b>	<b>\$ 2,126,697</b>	<b>-340.5%</b>	<b>\$ (491,594)</b>	<b>\$ (1,993,678)</b>	<b>-132.7%</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	390,000	271,000	(119,000)	-30.5%	348,710	77,710	28.7%
Allocation of Fixed Assets	-	-	-	-	-	-	-
<b>Inc/(Dec) in Fixed Assets</b>	<b>\$ 390,000</b>	<b>\$ 271,000</b>	<b>\$ (119,000)</b>	<b>-30.5%</b>	<b>\$ 348,710</b>	<b>\$ 77,710</b>	<b>28.7%</b>
<b>Total Budget (= B+ C)</b>	<b>\$ 23,650,862</b>	<b>\$ 24,553,470</b>	<b>\$ 902,608</b>	<b>3.8%</b>	<b>\$ 25,796,585</b>	<b>\$ 1,243,115</b>	<b>5.1%</b>
<b>Change in Working Capital (= A - B - C)</b>	<b>\$ (1,014,613)</b>	<b>\$ 1,231,084</b>	<b>\$ 2,245,697</b>	<b>-221.3%</b>	<b>\$ (840,304)</b>	<b>\$ (2,071,388)</b>	<b>-168.3%</b>
<b>FTEs</b>	79.35	79.35	-	0.0%	81.35	2	2.5%

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## Explanation of 2021 and 2022 Budget Projections

ReliabilityFirst has projected budget increases for 2021 and 2022. The projected range for 2021 is 3.8% to 6.3%; and the projected range for 2022 is 5.1% to 7.4%. ReliabilityFirst identified a range for its 2021 and 2022 budget projections to reflect both its baseline projections (the lower end of the range) and its projections of significant at-risk initiatives (the higher end of the range).

These at-risk initiatives primarily concern projected staffing needs to support increased internal workload to implement various programs currently under way or under consideration in support of the initiatives to help entities achieve excellence in reliability, security, and resiliency. The maturation of ERO risk-based initiatives includes a projected increase in workload related to Mitigation Plan Risk Assessment, Inherent Risk Assessments, Compliance Oversight Plans, and Regional Risk Assessments. Additionally, the RF Resiliency and Risk Program that will begin in late 2019, that covers BES operational, cyber, and physical resilience and risk initiatives, is expected to increase workload.

Furthermore, plans have been developed to overlap key personnel who have indicated they are near retirement in order to allow for adequate knowledge transfer and training of their successors. The potential impact on the budget will be managed and monitored closely as these personnel commit to specific retirement dates. The at-risk initiatives also concern the need to mature ReliabilityFirst's CIP oversight capability along with risk analytics and management applications.

The following is a breakdown of the projected budget ranges for 2021.

**2021 Lower Range: 3.8%**

- Personnel Expense: 4.4%
  - Wages Increase: 3%
  - Medical/Dental Premiums: 12%/8%
- Meeting Expense: 3%
- Travel Expense: 2.5%
- Operating Expense: 5.5%
  - CMEP Data Migration: \$30,000
  - Capability Management Software used for building models and measuring maturity for various business processes: \$75,000

**2021 Higher Range to Address At-Risk Initiatives: 6.3%**

- Personnel Expense: 7.3%
  - Wages Increase: 3%
  - Medical/Dental Premiums: 12%/8%
  - Aging Workforce Initiative: \$200,000
  - Hire 2 additional FTEs
- Meeting Expense: 3%
- Travel Expense: 2.5%
- Operating Expense: 5.5%
  - CMEP Data Migration: \$30,000
  - Capability Management Software used for building models and measuring maturity for various business processes: \$75,000

Notes:

1. 2021 projections are based on 2020 budget.

The following is a breakdown of the projected budget ranges for 2022.

**2022 Lower Range: 5.1%**

- Personnel Expense: 5.3%
  - Wages Increase: 3%
  - Includes the 2 FTEs from the 2021 projection
  - Medical/Dental/Vision Premiums: 12%/8%/3%
- Meeting Expense: 3%
- Travel Expense: 2.5%
- Operating Expense: 1.8%
  - Penetration Testing: \$60,000

**2022 Higher Range to Address At-Risk Initiatives: 7.4%**

- Personnel Expense: 8.1%
  - Wages Increase: 3%
  - Medical/Dental Premiums: 12%/8%/3%
  - Aging Workforce Initiative: \$200,000
  - Hire 2 additional FTEs
- Meeting Expense: 3%
- Travel Expense: 2.5%
- Operating Expense: 1.8%
  - Penetration Testing: \$60,000

Notes:

1. 2022 projections are based on the 2021 lower range.

## **Section C: Non-Statutory Activities**

ReliabilityFirst performed only those functions delegated to it by the ERO in 2019 and the organization does not intend to perform any functions outside its ERO delegated activities in 2020, therefore Section C is not applicable.

**Section D: Additional Consolidated Financial  
Statements**

### 2020 Consolidated Statement of Activities by Program

	Functions in Delegation Agreement														
	Total	Statutory Total	Non-Statutory Total	Statutory Total	Reliability Standards (Section 300)	Reliability Assurance and Compliance Monitoring	Enforcement	Reliability Assessment and Performance Analysis (Section 800)	Training and Education (Section 900)	Situation Awareness and Infrastructure Security (Section 1000)	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance
<b>Funding</b>															
<b>ReliabilityFirst Funding</b>															
ReliabilityFirst Assessments	22,318,623	22,318,623	-	22,318,623	-	14,590,025	2,127,566	2,725,807	1,166,805	2,723,032	(1,014,613)	-	-	-	-
Penalty Sanctions	267,627	267,627	-	267,627	-	162,457	29,926	28,216	12,826	34,202	-	-	-	-	-
<b>Total ReliabilityFirst Funding</b>	<b>22,586,250</b>	<b>22,586,250</b>	<b>-</b>	<b>22,586,250</b>	<b>-</b>	<b>14,752,482</b>	<b>2,157,493</b>	<b>2,754,023</b>	<b>1,179,631</b>	<b>2,757,233</b>	<b>(1,014,613)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Membership Dues	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest and Investment Income	50,000	50,000	-	50,000	-	30,351	5,591	5,272	2,396	6,390	-	-	-	-	-
Miscellaneous Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Funding</b>	<b>22,636,250</b>	<b>22,636,250</b>	<b>-</b>	<b>22,636,250</b>	<b>-</b>	<b>14,782,833</b>	<b>2,163,084</b>	<b>2,759,295</b>	<b>1,182,027</b>	<b>2,763,623</b>	<b>(1,014,613)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Expenses</b>															
<b>Personnel Expenses</b>															
Salaries	14,189,608	14,189,608	-	14,189,608	-	6,935,643	981,241	1,293,434	403,722	1,197,457	1,192,594	718,140	729,790	400,898	336,689
Payroll Taxes	846,791	846,791	-	846,791	-	427,127	66,278	76,570	25,768	75,674	39,343	35,778	52,644	22,603	25,005
Benefits	2,493,602	2,493,602	-	2,493,602	-	1,175,568	129,608	148,821	90,751	259,583	89,851	116,744	155,943	242,788	83,945
Retirement Costs	2,338,753	2,338,753	-	2,338,753	-	1,072,915	150,020	204,432	62,209	185,074	169,975	113,472	115,115	63,388	202,153
<b>Total Personnel Expenses</b>	<b>19,868,754</b>	<b>19,868,754</b>	<b>-</b>	<b>19,868,754</b>	<b>-</b>	<b>9,611,252</b>	<b>1,327,147</b>	<b>1,723,257</b>	<b>582,451</b>	<b>1,717,788</b>	<b>1,491,762</b>	<b>984,134</b>	<b>1,053,492</b>	<b>729,678</b>	<b>647,792</b>
<b>Meeting Expenses</b>															
Meetings & Conference Calls	377,140	377,140	-	377,140	-	23,100	1,600	8,500	211,000	3,400	57,800	3,500	18,400	49,600	240
Travel	697,919	697,919	-	697,919	-	400,119	28,000	105,000	10,000	54,800	35,000	30,000	11,000	12,000	12,000
<b>Total Meeting Expenses</b>	<b>1,075,059</b>	<b>1,075,059</b>	<b>-</b>	<b>1,075,059</b>	<b>-</b>	<b>423,219</b>	<b>29,600</b>	<b>113,500</b>	<b>221,000</b>	<b>58,200</b>	<b>92,800</b>	<b>33,500</b>	<b>29,400</b>	<b>61,600</b>	<b>12,240</b>
<b>Operating Expenses</b>															
Consultants & Contracts	481,115	481,115	-	481,115	-	90,000	-	126,340	30,000	32,500	-	6,500	108,000	81,775	6,000
Office Rent	539,292	539,292	-	539,292	-	-	-	-	-	-	468,732	-	70,560	-	-
Office Costs	810,400	810,400	-	810,400	-	301,952	6,180	41,564	5,652	40,670	67,399	12,796	248,756	41,096	44,335
Professional Services	442,483	442,483	-	442,483	-	-	-	-	-	-	262,950	15,000	-	121,433	43,100
Miscellaneous	43,759	43,759	-	43,759	-	2,700	-	200	-	-	13,959	-	3,100	23,800	-
<b>Total Operating Expenses</b>	<b>2,317,049</b>	<b>2,317,049</b>	<b>-</b>	<b>2,317,049</b>	<b>-</b>	<b>394,652</b>	<b>6,180</b>	<b>168,104</b>	<b>35,652</b>	<b>73,170</b>	<b>813,040</b>	<b>34,296</b>	<b>430,416</b>	<b>268,104</b>	<b>93,435</b>
<b>Total Direct Expenses</b>	<b>23,260,862</b>	<b>23,260,862</b>	<b>-</b>	<b>23,260,862</b>	<b>-</b>	<b>10,429,124</b>	<b>1,362,927</b>	<b>2,004,861</b>	<b>839,103</b>	<b>1,849,158</b>	<b>2,397,602</b>	<b>1,051,930</b>	<b>1,513,308</b>	<b>1,059,382</b>	<b>753,467</b>
<b>Indirect Expenses</b>															
	-	-	-	-	-	4,113,038	757,665	714,370	324,714	865,903	(2,397,602)	(1,051,930)	(1,513,308)	(1,059,382)	(753,467)
<b>Other Non-Operating Expenses</b>															
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Expenses</b>	<b>23,260,862</b>	<b>23,260,862</b>	<b>-</b>	<b>23,260,862</b>	<b>-</b>	<b>14,542,162</b>	<b>2,120,592</b>	<b>2,719,231</b>	<b>1,163,816</b>	<b>2,715,061</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Change in Assets</b>	<b>(624,613)</b>	<b>(624,613)</b>	<b>-</b>	<b>(624,613)</b>	<b>-</b>	<b>240,671</b>	<b>42,492</b>	<b>40,064</b>	<b>18,211</b>	<b>48,562</b>	<b>(1,014,613)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Fixed Assets</b>															
Computer & Software CapEx	140,000	140,000	-	140,000	-	10,000	-	-	-	-	-	-	130,000	-	-
Furniture & Fixtures CapEx	14,000	14,000	-	14,000	-	-	-	-	-	-	14,000	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	236,000	236,000	-	236,000	-	-	-	-	-	-	236,000	-	-	-	-
	<b>390,000</b>	<b>390,000</b>	<b>-</b>	<b>390,000</b>	<b>-</b>	<b>10,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>250,000</b>	<b>-</b>	<b>130,000</b>	<b>-</b>	<b>-</b>
Allocation of Fixed Assets	(0)	(0)	-	(0)	-	230,671	42,492	40,064	18,211	48,562	(250,000)	-	(130,000)	-	-
<b>Inc/(Dec) Fixed Assets</b>	<b>390,000</b>	<b>390,000</b>	<b>-</b>	<b>390,000</b>	<b>-</b>	<b>240,671</b>	<b>42,492</b>	<b>40,064</b>	<b>18,211</b>	<b>48,562</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Budget</b>	<b>23,650,862</b>	<b>23,650,862</b>	<b>-</b>	<b>23,650,862</b>	<b>-</b>	<b>14,782,833</b>	<b>2,163,084</b>	<b>2,759,295</b>	<b>1,182,027</b>	<b>2,763,623</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Change in Working Capital</b>	<b>(1,014,613)</b>	<b>(1,014,613)</b>	<b>-</b>	<b>(1,014,613)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(1,014,613)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>FTEs</b>	<b>79.35</b>	<b>79.35</b>	<b>-</b>	<b>79.35</b>	<b>-</b>	<b>38.00</b>	<b>7.00</b>	<b>6.60</b>	<b>3.00</b>	<b>8.00</b>	<b>3.00</b>	<b>3.00</b>	<b>6.00</b>	<b>2.00</b>	<b>2.75</b>



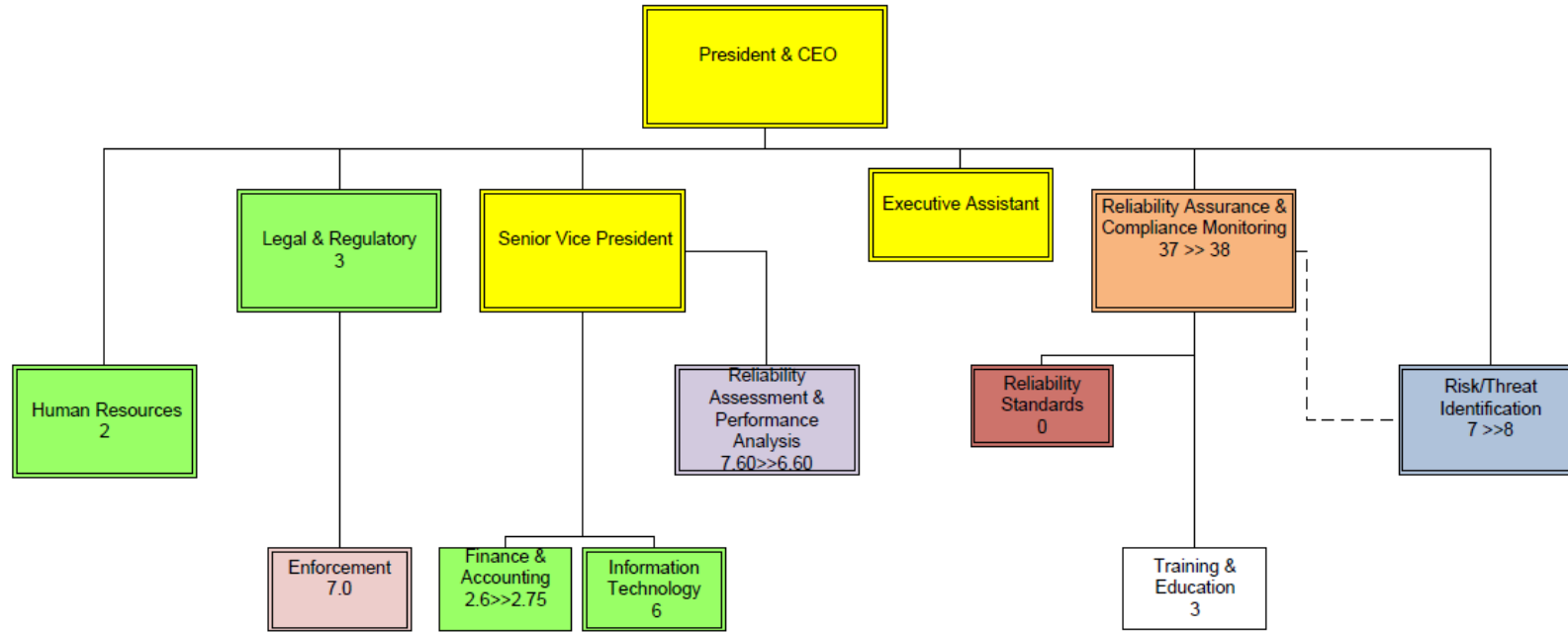
## Statement of Financial Position

### 2018 Statement of Financial Position

#### STATUTORY and NON-STATUTORY

	(Per Audit) 31-Dec-18
<b>ASSETS</b>	
Current Assets	
Cash	3,341,782
Cash - Regulatory Designated	445,842
Investments	6,219,995
Accounts receivable, net of allowance for uncollectible accounts	153,301
Prepaid expenses	236,965
<b>Total Current Assets</b>	<b>10,397,885</b>
Noncurrent Assets	
Deferred Compensation Plan Assets	257,468
<b>Total Noncurrent Assets</b>	<b>257,468</b>
Fixed Assets	
Furniture and Equipment	369,919
Leasehold Improvements	1,990,826
Computer Hardware and Software	3,324,622
Less Accumulated Depreciation	(3,424,798)
<b>Total Fixed Assets</b>	<b>2,260,569</b>
<b>Total Assets</b>	<b>12,915,922</b>
<b>LIABILITIES AND NET ASSETS</b>	
Current Liabilities	
Accounts payable	170,324
Accrued expenses	4,023,714
Deferred Rent	189,051
<b>Total Current Liabilities</b>	<b>4,383,089</b>
Long Term Liabilities	
Accrued expenses	303,908
Deferred Revenue	350,000
Deferred Rent	1,681,659
Deferred Compensation	257,468
<b>Total Long Term Liabilities</b>	<b>2,593,035</b>
<b>Total Liabilities</b>	<b>6,976,124</b>
Net Assets	
Without Donor Restrictions	
Undesignated	1,175,717
Operating Reserve Fund	1,000,000
Working Capital Reserve Fund	3,318,239
Regulatory Designated Funds	445,842
<b>Total Net Asset</b>	<b>5,939,798</b>
<b>Total Liabilities and Net Assets</b>	<b>12,915,922</b>

# Appendix A: 2019 – 2020 Organization Chart



**78.20 FTEs → 79.35 FTEs**

**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 6**

**SERC RELIABILITY CORPORATION**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**

## **SERC Reliability Corporation**

# **2020 Business Plan and Budget**

**Approved By Board of Directors  
June 26, 2019**

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# Introduction

The following table summarizes SERC Reliability Corporation's (SERC) budget for 2020.

TOTAL RESOURCES (in whole dollars)				
	2020 Budget	U.S.	Canada	Mexico
Statutory FTEs	98.0			
Non-statutory FTEs	-			
<b>Total FTEs</b>	98.0			
Statutory Expenses	\$ 24,195,013			
Non-Statutory Expenses	\$ -			
<b>Total Expenses</b>	\$ 24,195,013			
Statutory Incr(Decr) in Fixed Assets	\$ 329,999			
Non-Statutory Incr(Decr) in Fixed Assets	\$ -			
<b>Total Inc(Dec) in Fixed Assets</b>	\$ 329,999			
Statutory Working Capital Requirement	\$ 59,111			
Non-Statutory Working Capital Requirement	\$ -			
<b>Total Working Capital Requirement</b>	\$ 59,111			
Total Statutory Funding Requirement	\$ 24,584,123			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	\$ 24,584,123			
<b>Statutory Assessments</b>	\$ 22,459,123	\$ 22,459,123	n/a	n/a
<b>Non-Statutory Fees</b>	\$ -	n/a	n/a	n/a
NEL	1,315,968,578	1,315,968,578	n/a	n/a
NEL%	100%	100%	n/a	n/a

**Table 1. SERC Budget for 2020**

## Organizational Overview

SERC is a nonprofit corporation whose mission is to reduce 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 in order 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, originally called the Southeastern Electric Reliability Council, was formed in 1970 as a voluntary association of members comprising electric industry reliability stakeholders in the Southeast. Throughout its history, SERC has successfully promoted the reliability of the BPS using an industry model that relies on reciprocity, peer influence, and the mutual reliability focus of BPS owners, operators, and users to ensure that the system remains reliable and secure.

SERC was incorporated as a 501(c)(6) nonprofit corporation in the state of Alabama on April 29, 2005, to position SERC to become a Regional Entity with an appropriate stakeholder governance structure. In April 2006, SERC changed its name to SERC Reliability Corporation. Effective January 1, 2015, SERC incorporated in the state of North Carolina as a 501(c)(6) nonprofit.

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On May 2, 2007, SERC executed an agreement with the North American Electric Reliability Corporation (NERC) that delegated to SERC certain responsibilities and authorities of a Regional Entity as defined in these documents:

- Section 215 of the *Federal Power Act*; Chapter I, Title 18, *Code of Federal Regulations*, Part 39
- Other Federal Energy Regulatory Commission (FERC) regulations and directives
- *NERC Rules of Procedure*

The SERC Region presently covers an area of approximately 574,000 square miles. Electric systems in the Region currently serve approximately 23% of the net energy for load (NEL) in North America and 32% of the NEL in the Eastern Interconnection.

On February 27, 2019, SERC—together with NERC and the Florida Reliability Coordinating Council Regional Entity (FRCC)—made application to FERC to allow all 36 registered entities in the FRCC footprint to transfer their registrations to SERC. On April 30, 2019, FERC approved the application, effective July 1, 2019. This will also add approximately 236.9 TWh of NEL to the SERC Region. This increase in NEL has been factored into Table 1 above.

An in-depth manpower analysis was conducted to determine required staffing levels necessary to meet SERC's goals and obligations. In addition, SERC is conducting value stream mapping and process improvement initiatives to enhance the effectiveness and efficiency of its various programs. The analysis considers expected efficiency improvements and yields a targeted staffing level of 98.0 Full-Time Equivalents (FTEs), comprising power industry professionals and support personnel. This staffing level will be sufficient to perform the scale of duties that will result from the integration of the new registered entities from FRCC described above.

## **Membership and Governance**

As part of its delegated duties, SERC currently monitors 212 registered entities in the SERC Region for compliance with the NERC Reliability Standards. An additional 36 entities from FRCC will transfer to SERC on July 1, 2019. Membership in SERC is voluntary and free. SERC's member companies participate in the technical activities and governance of the organization. SERC currently has 54 member companies.

A Board of Directors (Board), composed of a representative from each member company, governs SERC. The Board delegates most of its authority to an Executive Committee. The Board Executive Committee was expanded recently from 12 to 15 directors to provide additional executive committee membership for entities joining SERC from FRCC. The Board has formed the following committees:

- Board Executive Committee (BEC): Is empowered to make all such decisions and take such actions as are deemed necessary for the operation of the Corporation.
- Board Compliance Committee (BCC): Oversees the program that monitors and enforces compliance of registered entities in the Region to FERC-approved Reliability Standards.
- Human Resources and Compensation Committee (HRCC): Advises the President, Board officers, and the Board about employee compensation and human resources.
- Finance and Audit Committee (FAC): Advises the President, Board officers, and the Board about the organization's finances and internal controls.
- Nominating Committee: Identifies, vets, and recommends candidates for Board Officer and committee positions, as needed.

## **Statutory Functional Scope**

SERC provides statutory functions that support the ERO, in accordance with its delegation agreement between SERC and NERC. SERC provides the following functions:

- Analyzes events to identify lessons learned that will improve reliability

- 
- Promotes BPS reliability, adequacy, and security
  - Helps develop Reliability Standards for the North American BPS and the SERC Region
  - Monitors and enforces approved mandatory Reliability Standards
  - Registers and certifies responsible entities under the reliability compliance program
  - Assesses the BPS past, present, and future risk profile in order to assure reliability, adequacy, and security
  - Trains operating personnel to assure competence

SERC performs only functions called for in Section 215 of the Federal Power Act that have been delegated from NERC to SERC.

## **2020 Key Assumptions**

NERC and Regional Entity business plans and budgets reflect the collaborative development of the ERO Enterprise Long-term Strategy and the ERO Enterprise Operating Plan. These strategic documents are available on NERC's website at (<https://www.nerc.com/AboutNERC/Pages/Strategic-Documents.aspx>)

Embodied in these strategic documents are six goals, each of which is supported by key contributing activities of the combined ERO Enterprise, NERC, and SERC:

- Risk-responsive Reliability Standards
- Objective, risk-informed compliance monitoring, mitigation, enforcement, and entity registration
- Reduction of known reliability risks
- Identification and assessment of emerging reliability risks
- Identification and reduction of cyber and physical security risks
- Effective and efficient ERO Enterprise operations

## **2020 Key Objectives**

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 Electric Reliability Organization (ERO) Enterprise, as well as in the eyes of the Federal Energy Regulatory Commission (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.

SERC will pursue a number of key objectives in 2020 to promote these focus areas:

- Identify the most significant risks to reliability in the SERC Region.
  - Identify and prioritize risks based on reliability impacts, cost/practicality assessments, projected resources, and emerging issues.



- 
- Analyze events and system performance consistently to determine sequence, cause, and remediation. Identify reliability risks and trends to inform standards, compliance, and other programs.
  - 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 security threats and addresses them effectively.
    - Facilitate information sharing among industry, Regions, ERO, and government.
    - Work with the ERO to track industry accountability for critical reliability and security recommendations.
  - Promote a culture of reliability excellence.
    - Ensure reliable data modeling. Verify that the data represents system behavior accurately. Facilitate data sharing among registered entities.
    - Serve as a leading resource to industry and policy makers to supply reliability information.
  - 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.
    - Foster trust between and among all levels of the organization.
  - Ensure internal processes are effective, efficient, and continually improving for the benefit of stakeholders, as well as employees.
  - Serve as an independent, objective, and fair enforcement authority, without conflicts of interest.
    - Register entities commensurate to the risk to the BPS and ensure all key reliability entities are certified to have essential capabilities.
    - Enforce compliance of registered entities with mandatory Reliability Standards, in accordance with the delegation agreement and Compliance Monitoring and Enforcement Program (CMEP). Perform timely and transparent reviews.
    - Ensure that all violations of mandatory Reliability Standards are mitigated in a timely, thorough, and comprehensive manner.
  - Promote a culture of compliance that addresses reliability risks across the SERC Region and the ERO.
    - Ensure that the industry understands the essential purpose of standards and compliance expectations.
    - Work with the industry to maintain effective risk control programs for compliance, reliability, and security.
    - Use efficient processes and proportional exercise of discretion to verify that the industry meets compliance objectives.

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## 2020 Overview of Budget

SERC proposes to increase its operating budget in 2020 from \$18,144,949 to \$24,525,013, an increase of \$6,380,064 or 35.2%, of which \$4,974,626 is attributable to the inclusion of the new registered entities transferring from FRCC.

SERC's proposed 2020 assessment of \$22,459,123 represents an increase of 29.3%, or \$5,086,908 from the 2019 assessment and reflects the application of \$1,900,000 in penalty sanctions as an offset to assessments. Current SERC entities will see an increase in assessments of 6.0% (3.0% due to a prior year \$528K working capital reserve credit in 2019 budget), while entities transferring from FRCC will see a decrease of 30.6%.

SERC believes that in 2020 it will continue to realize material efficiencies that will allow the Region to remain an effective provider of statutory functions while managing costs and providing exceptional financial stewardship for its stakeholders. SERC will continue to promote consistent delivery of excellent results at a cost that respects the longstanding tradition of affordable and reliable electricity across SERC's geography.

In order to stabilize assessments and align budget and assessment changes more closely in the future, SERC has undertaken a multi-year strategy to manage assessment changes. NERC Rules of Procedure (ROP) §1107.2 specifies that penalties 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, ROP §1107.4 provides for exceptions or alternatives to this treatment if approved by FERC. In June 2019, the Board is expected to approve an amendment to SERC's Cash Reserves Policy. Included with this amendment is the creation of an Assessment Stabilization Reserve. This reserve will be established to implement the strategic goal of minimizing year-to-year volatility in assessments. The eventual goal is 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 penalty sanctions.

The following targeted budget changes allow SERC to accomplish the specific objectives outlined in the *2020 Business Plan and Budget* (dollars are stated as an increase in the 2020 budget compared to the 2019 budget). The most significant changes to the budget are in personnel, which includes two components:

- **Staffing changes proposed in 2020** – The targeted staffing level for 2020 is 98.00 FTEs. This reflects an increase of twenty FTEs compared to the 2019 budget. These additional personnel will accommodate the increase in workload in administration of the CMEP for registered entities transferring from FRCC to SERC.
- **Cost increase for maintaining staff budgeted in 2020** – The net increase in Personnel costs of \$5,305,173 compared to 2019 reflects a Board approved merit increase and an increase in employee benefit costs. A vacancy rate (of 8.0%) 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 increase of \$341,350 reflects additional audits due to the transfer of SPP entities to SERC, increased stakeholder outreach efforts, and an increase in meeting expenses associated with board and committee governance activities to reflect better a larger board and attendance.
- **Consultants and Contracts** – SERC anticipates an overall increase in Consultants and Contracts of \$391,099. This reflects search fees for recruitment of independent directors expected to be added to SERC's Board of Directors in 2021.
- **Office Costs** – An increase of \$175,563 is due primarily to planned upgrades of laptops and equipment.

- 
- **Professional Services** – An increase of \$55,800 is due to a combination of increased legal fees to review corporate bylaws, increased independent auditor fees, and third-party payroll processing fees.
  - **Fixed Assets** – An increase of \$110,000 in fixed asset purchases reflects the need for server replacements and new corporate services software.

Beginning with the 2020 Business Plan & Budget (BP&B), NERC and the Regions are implementing format revisions to the Statement of Activities report. These revisions are intended to ensure that NERC and the Regions report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), provide enhanced transparency of financing activity (e.g., debt borrowing, leased-financed asset purchases, and principal payments), and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). The goal of the new format is to improve 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. One of the format revisions is that the Statements of Activities will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (which resulted in depreciation having no impact on funding requirements or actual results).

In the 2020 BP&B document, the 2019 budget has been restated to reflect the new statement of activities reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, in the total entity and departmental Statements of Activities, depreciation expense has been removed from the 2019 operating expense budgets and projections, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections.

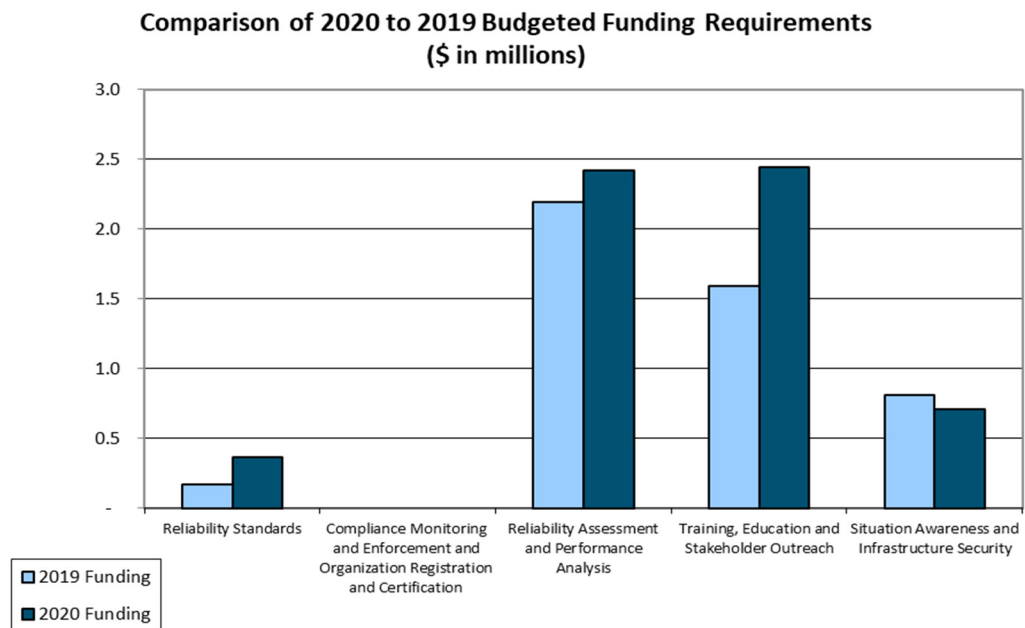
## Summary by Program

The following table and figure summarize and illustrate the funding requirements for SERC's primary statutory program areas.

Program	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 172,440	\$ 158,353	\$ 367,933	\$ 195,493	113.4%
Compliance Monitoring and Enforcement; Organization Registration and Certification	13,373,347	17,460,481	18,585,684	5,212,337	39.0%
Reliability Assessment and Performance Analysis	2,197,046	2,723,426	2,418,922	221,876	10.1%
Training, Education and Stakeholder Outreach	1,594,009	2,011,012	2,439,797	845,788	53.1%
Situation Awareness and Infrastructure Security	808,107	922,753	712,677	(95,430)	(11.8%)
<b>Total By Program</b>	<b>\$ 18,144,949</b>	<b>\$ 23,276,025</b>	<b>\$ 24,525,013</b>	<b>\$ 6,380,064</b>	<b>35.2%</b>
<b>Working Capital Reserve</b>	(528,184)	(1,803,380)	59,110	587,294	
<b>Total Funding</b>	<b>17,616,765</b>	<b>21,472,645</b>	<b>24,584,123</b>	<b>6,967,358</b>	<b>39.5%</b>

This representation does not include an allocation of working capital requirements among the program areas.

**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**

## Personnel Analysis

The targeted staffing level for 2020 is 98.00 FTEs, which represents an increase of twenty FTEs compared to the 2019 budget. These additional personnel will accommodate the increase in workload in administration of the CMEP Program for new registered entities transferring from the FRCC Regional Entity to SERC. Other shifts between program areas are a result of an internal restructuring to align resources with overall needs. Details are discussed in the Resource Requirements section in each program area in Section A.

Total FTEs by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs* 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>STATUTORY</b>						
<b>Operational Programs</b>						
Reliability Standards	0.45	0.60	1.00	0.00	1.00	0.55
Compliance Monitoring and Enforcement; Organization Registration and Certification	34.00	43.60	49.50	0.00	49.50	15.50
Reliability Assessment and Performance Analysis	4.90	6.00	6.00	0.00	6.00	1.10
Training, Education and Stakeholder Outreach	3.30	5.00	6.00	0.00	6.00	2.70
Situation Awareness and Infrastructure Security	2.20	2.00	2.00	0.00	2.00	(0.20)
<b>Total FTEs Operational Programs</b>	<b>44.85</b>	<b>57.20</b>	<b>64.50</b>	<b>0.00</b>	<b>64.50</b>	<b>19.65</b>
<b>Corporate Services</b>						
Technical Committees and Member Forums	4.70	3.50	4.00	0.00	4.00	(0.70)
General & Administrative	8.75	10.00	11.00	0.00	11.00	2.25
Legal and Regulatory	4.45	3.50	3.70	0.00	3.70	(0.75)
Analytics & Information Technology	9.45	8.00	8.00	0.00	8.00	(1.45)
Human Resources	2.90	2.90	3.40	0.00	3.40	0.50
Finance and Accounting	2.90	2.90	3.40	0.00	3.40	0.50
<b>Total FTEs Corporate Services</b>	<b>33.15</b>	<b>30.80</b>	<b>33.50</b>	<b>0.00</b>	<b>33.50</b>	<b>0.35</b>
<b>Total FTEs</b>	<b>78.00</b>	<b>88.00</b>	<b>98.00</b>	<b>0.00</b>	<b>98.00</b>	<b>20.00</b>

\* A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

**Table 3. Total FTEs by Program Area**

## 2019 Budget and Projection and 2020 Budget Comparisons

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
STATUTORY					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 17,372,215	\$ 17,372,215	\$ -	\$ 22,459,123	\$ 5,086,908
Penalty Sanctions	83,000	974,919	891,919	1,900,000	1,817,000
<b>Total Statutory Funding</b>	<b>\$ 17,455,215</b>	<b>\$ 18,347,134</b>	<b>\$ 891,919</b>	<b>\$ 24,359,123</b>	<b>\$ 6,903,908</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	34,500	34,500	-	-	(34,500)
Workshops & Miscellaneous	126,050	3,040,011	2,913,961	165,000	38,950
Interest	1,000	51,000	50,000	60,000	59,000
<b>Total Revenue (A)</b>	<b>\$ 17,616,765</b>	<b>\$ 21,472,645</b>	<b>\$ 3,855,880</b>	<b>\$ 24,584,123</b>	<b>\$ 6,967,358</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 10,276,729	\$ 12,443,871	\$ 2,167,142	\$ 14,135,381	\$ 3,858,652
Payroll Taxes	746,769	874,329	127,560	1,028,204	281,435
Benefits	1,172,398	1,669,962	497,564	1,843,729	671,331
Retirement Costs	1,330,427	1,576,639	246,212	1,824,182	493,755
<b>Total Personnel Expenses</b>	<b>\$ 13,526,323</b>	<b>\$ 16,564,801</b>	<b>\$ 3,038,478</b>	<b>\$ 18,831,496</b>	<b>\$ 5,305,173</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 336,700	\$ 608,300	\$ 271,600	\$ 521,824	\$ 185,124
Travel	648,922	788,922	140,000	805,148	156,226
<b>Total Meeting Expenses</b>	<b>\$ 985,622</b>	<b>\$ 1,397,222</b>	<b>\$ 411,600</b>	<b>\$ 1,326,972</b>	<b>\$ 341,350</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,978,481	\$ 2,069,481	\$ 91,000	\$ 2,369,580	\$ 391,099
Office Rent	785,196	785,196	-	789,276	4,080
Office Costs	535,986	678,985	142,999	711,549	175,563
Professional Services	110,340	150,340	40,000	166,140	55,800
Miscellaneous	3,000	-	(3,000)	-	(3,000)
<b>Total Operating Expenses</b>	<b>\$ 3,413,003</b>	<b>\$ 3,684,002</b>	<b>\$ 270,999</b>	<b>\$ 4,036,545</b>	<b>\$ 623,542</b>
<b>Total Direct Expenses</b>	<b>\$ 17,924,948</b>	<b>\$ 21,646,025</b>	<b>\$ 3,721,077</b>	<b>\$ 24,195,013</b>	<b>\$ 6,270,065</b>
<b>Indirect Expenses</b>	<b>\$ 1</b>	<b>\$ -</b>	<b>\$ (1)</b>	<b>\$ -</b>	<b>\$ (1)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 17,924,949</b>	<b>\$ 21,646,025</b>	<b>\$ 3,721,076</b>	<b>\$ 24,195,013</b>	<b>\$ 6,270,064</b>
<b>Change in Assets</b>	<b>\$ (308,184)</b>	<b>\$ (173,380)</b>	<b>\$ 134,804</b>	<b>\$ 389,110</b>	<b>\$ 697,294</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 220,000</b>	<b>\$ 1,630,000</b>	<b>\$ 1,410,000</b>	<b>\$ 330,000</b>	<b>\$ 110,000</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 18,144,949</b>	<b>\$ 23,276,025</b>	<b>\$ 5,131,076</b>	<b>\$ 24,525,013</b>	<b>\$ 6,380,064</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (528,184)</b>	<b>\$ (1,803,380)</b>	<b>\$ (1,275,196)</b>	<b>\$ 59,110</b>	<b>\$ 587,294</b>
FTEs	78.0	88.0	10.0	98.0	20.0

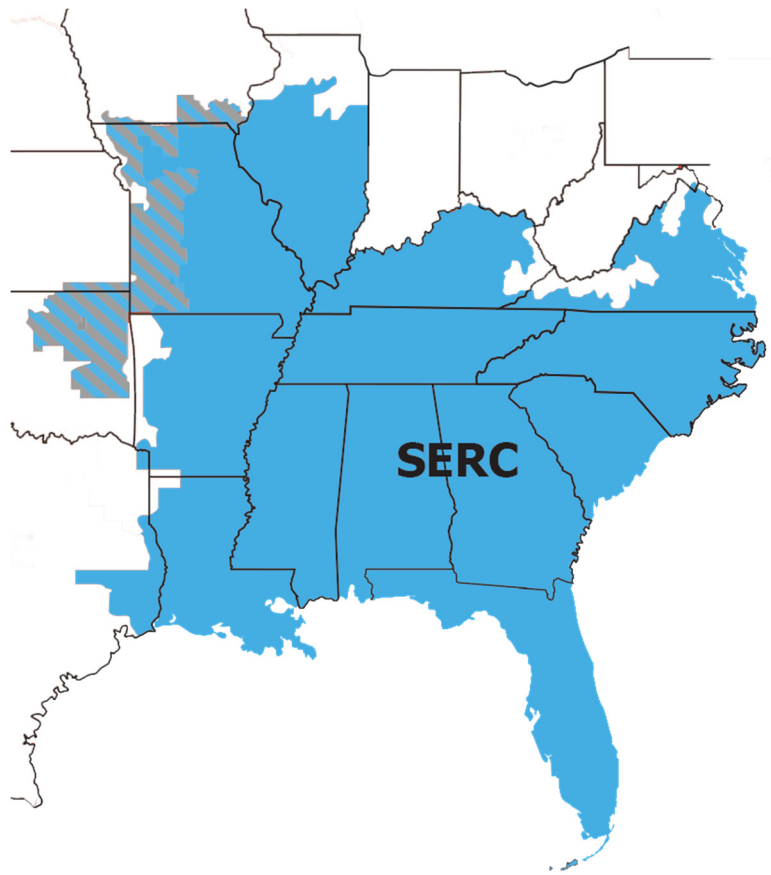
**Table 4. Budget and Projection Comparison, 2019 to 2020**

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## Section A – Statutory Programs

### 2020 Business Plan and Budget

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## Section A – Statutory Programs

### Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	0.45	1.00	0.55
Direct Expenses	\$ 77,047	\$ 197,328	\$ 120,281
Indirect Expenses	\$ 96,915	\$ 165,489	\$ 68,574
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (1,522)	\$ 5,116	\$ 6,638
Total Funding Requirement	\$ 172,440	\$ 367,933	\$ 195,493

**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, 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 procedure for *SERC Technical Committee Documents*.

### 2020 Key Assumptions

The 2020 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 standards changes reach a steady state.
- SERC resources will support the standards development per the NERC Standards Process Manual.
- SERC regional standards development activity will take place in 2020 and beyond to incorporate the entities transitioning from FRCC into the SERC UFLS standard.
- SERC anticipates regional criteria and guideline development will continue as needed to support reliability and security.



**2020 Goals and Key Deliverables**

SERC Reliability Standards Program 2020 goals and key deliverables are as follows:

- Manage the SERC Technical Committee Documents per the approved 2020 Review Work Plan.
- Support the ERO to develop, modify, and conduct periodic reviews of the Reliability Standards to assure they are clear and properly structured for existing and emerging risks.
- Provide information to stakeholders on upcoming standards changes or implementation dates to ensure awareness and preparedness.

**Resource Requirements****Personnel**

Reliability Standards increased the FTE allocation by 0.55 from 2019 to 2020 due to a reallocation of resources.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

**Travel Expenses**

Travel expenses increased from 2019 to 2020 as staffing increased; the new staff will participate in NERC standards activities and share information with SERC Technical Committees, which will involve a limited amount of additional travel.

## Reliability Standards Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
RELIABILITY STANDARDS					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 171,606	\$ 171,606	\$ -	\$ 338,061	\$ 166,455
Penalty Sanctions	833	10,226	9,393	29,457	28,624
<b>Total Statutory Funding</b>	<b>\$ 172,439</b>	<b>\$ 181,832</b>	<b>\$ 9,393</b>	<b>\$ 367,518</b>	<b>\$ 195,079</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	30,759	30,759	372	372
Interest	-	535	535	930	930
<b>Total Revenue (A)</b>	<b>\$ 172,439</b>	<b>\$ 213,126</b>	<b>\$ 40,687</b>	<b>\$ 368,820</b>	<b>\$ 196,381</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 55,268	\$ 19,903	\$ (35,365)	\$ 140,742	\$ 85,474
Payroll Taxes	4,035	1,453	(2,582)	10,274	6,239
Benefits	6,631	4,328	(2,303)	17,341	10,710
Retirement Costs	7,113	2,572	(4,541)	18,121	11,008
<b>Total Personnel Expenses</b>	<b>\$ 73,047</b>	<b>\$ 28,256</b>	<b>\$ (44,791)</b>	<b>\$ 186,478</b>	<b>\$ 113,431</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ -	\$ -	\$ -	\$ 1,110	\$ 1,110
Travel	4,000	4,000	-	9,540	5,540
<b>Total Meeting Expenses</b>	<b>\$ 4,000</b>	<b>\$ 4,000</b>	<b>\$ -</b>	<b>\$ 10,650</b>	<b>\$ 6,650</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	200	200
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 200</b>	<b>\$ 200</b>
<b>Total Direct Expenses</b>	<b>\$ 77,047</b>	<b>\$ 32,256</b>	<b>\$ (44,791)</b>	<b>\$ 197,328</b>	<b>\$ 120,281</b>
<b>Indirect Expenses</b>	<b>\$ 96,915</b>	<b>\$ 108,999</b>	<b>\$ 12,084</b>	<b>\$ 165,489</b>	<b>\$ 68,574</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 173,962</b>	<b>\$ 141,255</b>	<b>\$ (32,707)</b>	<b>\$ 362,817</b>	<b>\$ 188,855</b>
<b>Change in Assets</b>	<b>\$ (1,523)</b>	<b>\$ 71,871</b>	<b>\$ 73,394</b>	<b>\$ 6,003</b>	<b>\$ 7,526</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (1,522)</b>	<b>\$ 17,098</b>	<b>\$ 18,620</b>	<b>\$ 5,116</b>	<b>\$ 6,638</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 172,440</b>	<b>\$ 158,353</b>	<b>\$ (14,087)</b>	<b>\$ 367,933</b>	<b>\$ 195,493</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (1)</b>	<b>\$ 54,773</b>	<b>\$ 54,774</b>	<b>\$ 887</b>	<b>\$ 888</b>
FTEs	0.45	0.60	0.15	1.00	0.55

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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	34.00	49.50	15.50
Direct Expenses	\$ 6,165,872	\$ 10,140,718	\$ 3,974,846
Indirect Expenses	\$ 7,322,466	\$ 8,191,711	\$ 869,245
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (114,991)	\$ 253,255	\$ 368,246
Total Funding Requirement	\$ 13,373,347	\$ 18,585,684	\$ 5,212,337

**Table A-3. Compliance Monitoring, Enforcement and Organization Registration and Certification Program Budget**

### Program Scope and Functional Description

SERC's Compliance Monitoring and Enforcement Program (CMEP) is implemented by Compliance and Enforcement personnel, who are independent of stakeholders and registered entities. To accomplish this objective, SERC has divided its CMEP into four areas: Compliance Monitoring, Entity Assessment and Mitigation, Organization Registration and Certification, and Enforcement.

#### Compliance

SERC's Compliance staff implements the CMEP activities pursuant to the *Delegation Agreement* and Uniform CMEP. The Compliance Program consists of three functional areas:

- Organization Registration and Certification
  - Registers owners, operators, and users of the BPS for compliance with Reliability Standards
  - Certifies applicable entities
- Compliance Monitoring
  - Conducts SERC compliance monitoring activities (e.g., Compliance audits, spot checks, guided self-certifications, and Compliance Investigations)
  - Uses a risk-based approach to compliance monitoring, developing and implementing entity Compliance Oversight Plans
  - Performs registered entity Internal Controls Evaluations
  - Provides subject matter experts for Standards and Requirements
  - Implements and maintains the Critical Infrastructure Protection (CIP) Standards Technical Feasibility Exceptions process
- Entity Assessment and Mitigation
  - Conducts registered entity Inherent Risk Assessments
  - Serves as the technical point of contact for all non-compliance issues discovered and/or self-reported

- Performs risk-harm assessment on non-compliance, which includes determining the scope and root cause of the non-compliance, and the potential and actual risk or harm to Bulk Power System (BPS) reliability
- Reviews and approves the registered entity’s mitigating activities to ensure the registered entity performs the actions necessary to correct the non-compliance and prevent recurrence in order to protect BPS reliability
- Administers the SERC Regional self-logging program
- Performs Compliance Evaluations, when required, on Events reported by registered entities

### **Enforcement**

SERC Enforcement personnel are responsible for processing violations of Reliability Standards and imposing penalties or sanctions, as appropriate. The Enforcement personnel follow these steps:

1. Notify the registered entity of the findings regarding the violation and any applicable penalties or sanctions.
2. Negotiate settlement with the registered entity or issue a notice of violation (if the entity is unwilling to settle).
3. Submit the proposed enforcement action, along with any proposed penalty or sanctions, to NERC for review, approval, and subsequent submittal to FERC.
4. Prosecute the case before a Hearing Body if a registered entity challenges the findings of the violation and/or penalty.

## **2020 Key Assumptions**

### **Compliance**

The 2020 key assumptions for SERC Compliance are as follows:

- The transfer of Registered Entities from FRCC Regional Entity to SERC will impact all facets of the compliance program areas.
- Risk-based Compliance Monitoring engagements will increase. SERC expects to increase compliance audits, spot checks, and guided self-certifications for Compliance Monitoring engagements. Compliance staff will continue to receive training on risk principles 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.
- Operations and Planning Reliability Standard non-compliance are expected to remain relatively low as most registered entities have been previously audited, and the standards and Reliability Standards Audit Worksheets (RSAWs) have matured.
- The number of CIP Technical Feasibility Exception (TFE) requests will continue to decline as the CIP program for registered entities matures.
- SERC will continue to collaborate with NERC and implement the NERC approved certification process to assess a registered entity’s capability for performing its registered

function(s) and to use the tools NERC provides. SERC expects the certification process to remain relatively consistent.

- The volume of documents for Joint Registration Organization, Coordinated Functional Registration, and Multi-Regional Registered Entity 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 Compliance staff expects to have an active role in the development of ERO Enterprise CMEP Tools; this may require additional resources to provide an adequate level of participation.

## **Enforcement**

The 2020 key assumptions for SERC Enforcement are as follows:

- SERC will continue to see a high number of Enforcement actions due to the implementation of CIP Version 5 and due to the increase in compliance audits from the entities transferring to SERC from Florida.
- SERC will process or dismiss possible violations in a timely and fair manner.
- There will be no significant increase in travel for Enforcement staff to process possible violations.

## **2020 Goals and Key Deliverables**

### **Compliance**

SERC Compliance 2020 goals and key deliverables are as follows:

- Conduct scheduled Compliance Monitoring activities pursuant to the 2020 Implementation Plan. Compliance Monitoring engagements for 2020 will consider on-site audits, off-site audits, spot checks, and guided self-certifications. As Entity Assessment and Mitigation completes or refreshes registered entities' Inherent Risk Assessments, the 2020 Compliance Monitoring schedule may change, with additional engagements added.
- 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 processing, risk-assessment, and registration and certification program for sufficiency and effectiveness. Modify the programs, 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 to restore compliance and prevent recurrence, thereby maintaining the reliability of the BPS. Timely mitigation will cause the aging curve to trend positively.
- Develop mature violation processing management tools and training based on risk-based techniques to improve the efficiency, transparency, consistency, quality, and timeliness of violation processing.
- Assume an active role in ERO Enterprise-wide CMEP Tools development.
- 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 the following:
  - Compliance 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.
  - An annual assessment process exists to evaluate audit team content and capability needs.
  - A training program exists that addresses initial and continuing training for capability and competency development.
- 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

SERC Enforcement 2020 goals and key deliverables are as follows:

- Manage Enforcement activities in an unbiased, fair, and consistent manner to ensure due process for all registered entities.
- Hold the industry accountable for violations that create a serious risk to the BPS. Ensure resulting actions are timely and fair, including appropriate use of Compliance Exceptions; Find, Fix, and Track (FFT); Spreadsheet Notice of Penalty (SNOP); and Full Notice of Penalty (NOP). To achieve this, SERC will
  - conduct outreach activities to help entities increase the percentage of self-identified non-compliances (Self Reports and Self Certifications);
  - decrease the time needed to process violations and keep the average age of violations in inventory at less than one year; and

- process minimal and moderate risk issues through non-Enforcement mechanisms where appropriate, and process higher risk violations and broad compliance failures through the SNOP and NOP processing tracks.

## Resource Requirements

### Personnel

A significant increase in compliance activity is expected with the transfer of registered entities from the FRCC Regional Entities. SERC conducted an in-depth manpower analysis to determine required staffing levels necessary to meet SERC's compliance goals and obligations. The analysis considers expected efficiency improvements gained from value stream mapping and process improvement initiatives, and yields a targeted staffing level of 49.5 Full-Time Equivalent (FTEs) in the CMEP area. This staffing level represents an increase of 15.5 FTEs, and will be sufficient to perform the scale of duties that will result from the integration of the new registered entities from FRCC described above. Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

### Meeting and Travel

The total number of on-site compliance audits and spot checks conducted on an average annual basis is projected to increase as much as 50% due to the integration of FRCC Regional Entity. This includes both the areas of Operations & Planning, and CIP. This includes increased costs projected as a result of risk-based monitoring of the CIP-014 reliability standard, due to more frequent site visits associated with auditing this CIP standard.

SERC anticipates an increase of nearly \$15,000 in travel and meeting expenses in 2020 in the Entity Assessment and Mitigation group. This is due to an increase in staff because of the integration of FRCC RE, and an increase in meetings between Entity Assessment and Mitigation staff and registered entities regarding enforcement and mitigation matters.

### Contractors and Consultants

The cost for 2020 reflects an increase of \$10,000, attributable to the Consortium User Group (CUG) expenses transferring to SERC from FRCC.

**Section A – Statutory Programs Compliance Monitoring, Enforcement, and Organization Registration and Certification Program Funding Sources and Expenditures**

**Compliance Monitoring, Enforcement, and Organization Registration and Certification Program Funding Sources and Expenditures**

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
COMPLIANCE MONITORING AND ENFORCEMENT; ORGANIZATION REGISTRATION AND CERTIFICATION					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 13,275,926	\$ 13,275,926	\$ -	\$ 17,096,873	\$ 3,820,947
Penalty Sanctions	62,921	743,120	680,199	1,458,140	1,395,219
<b>Total Statutory Funding</b>	<b>\$ 13,338,847</b>	<b>\$ 14,019,046</b>	<b>\$ 680,199</b>	<b>\$ 18,555,013</b>	<b>\$ 5,216,166</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	34,500	2,235,157	2,200,657	29,418	(5,082)
Interest	-	38,874	38,874	46,048	46,048
<b>Total Revenue (A)</b>	<b>\$ 13,373,347</b>	<b>\$ 16,293,077</b>	<b>\$ 2,919,730</b>	<b>\$ 18,630,479</b>	<b>\$ 5,257,132</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,319,499	\$ 5,841,257	\$ 1,521,758	\$ 7,213,371	\$ 2,893,872
Payroll Taxes	315,323	426,412	111,089	526,576	211,253
Benefits	470,935	581,907	110,972	836,603	365,668
Retirement Costs	556,635	769,159	212,524	928,548	371,913
<b>Total Personnel Expenses</b>	<b>\$ 5,662,392</b>	<b>\$ 7,618,735</b>	<b>\$ 1,956,343</b>	<b>\$ 9,505,098</b>	<b>\$ 3,842,706</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 8,300	\$ 63,300	\$ 55,000	\$ 35,825	\$ 27,525
Travel	349,400	439,400	90,000	438,270	88,870
<b>Total Meeting Expenses</b>	<b>\$ 357,700</b>	<b>\$ 502,700</b>	<b>\$ 145,000</b>	<b>\$ 474,095</b>	<b>\$ 116,395</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 120,375	\$ 156,000	\$ 35,625	\$ 126,000	\$ 5,625
Office Rent	-	-	-	-	-
Office Costs	22,855	20,005	(2,850)	35,525	12,670
Professional Services	-	-	-	-	-
Miscellaneous	2,550	-	(2,550)	-	(2,550)
<b>Total Operating Expenses</b>	<b>\$ 145,780</b>	<b>\$ 176,005</b>	<b>\$ 30,225</b>	<b>\$ 161,525</b>	<b>\$ 15,745</b>
<b>Total Direct Expenses</b>	<b>\$ 6,165,872</b>	<b>\$ 8,297,440</b>	<b>\$ 2,131,568</b>	<b>\$ 10,140,718</b>	<b>\$ 3,974,846</b>
<b>Indirect Expenses</b>	<b>\$ 7,322,466</b>	<b>\$ 7,920,593</b>	<b>\$ 598,127</b>	<b>\$ 8,191,711</b>	<b>\$ 869,245</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 13,488,338</b>	<b>\$ 16,218,033</b>	<b>\$ 2,729,695</b>	<b>\$ 18,332,429</b>	<b>\$ 4,844,091</b>
<b>Change in Assets</b>	<b>\$ (114,991)</b>	<b>\$ 75,045</b>	<b>\$ 190,036</b>	<b>\$ 298,050</b>	<b>\$ 413,041</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (114,991)</b>	<b>\$ 1,242,448</b>	<b>\$ 1,357,439</b>	<b>\$ 253,255</b>	<b>\$ 368,246</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 13,373,347</b>	<b>\$ 17,460,481</b>	<b>\$ 4,087,134</b>	<b>\$ 18,585,684</b>	<b>\$ 5,212,337</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ -</b>	<b>\$ (1,167,403)</b>	<b>\$ (1,167,403)</b>	<b>\$ 44,795</b>	<b>\$ 44,795</b>
FTEs	34.00	43.60	9.60	49.50	15.50

**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)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	4.90	6.00	1.10
Direct Expenses	\$ 1,158,321	\$ 1,395,289	\$ 236,968
Indirect Expenses	\$ 1,055,297	\$ 992,935	\$ (62,362)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (16,572)	\$ 30,698	\$ 47,270
Total Funding Requirement	\$ 2,197,046	\$ 2,418,922	\$ 221,876

**Table A-5. Reliability Assessments and Performance Analysis (RAPA) Budget**

### Program Scope and Functional Description

SERC's RAPA program provides data gathering and 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. RAPA's mission is to promote a culture of reliability excellence among the owners of BPS assets. The program accomplishes this 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 data gathering and analysis. The assessment program uses information from its internal data collection 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.

### 2020 Key Assumptions

The 2020 key assumptions for SERC RAPA are as follows:

- SERC will continue to support NERC's RAPA program to gather 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.

### 2020 Goals and Key Deliverables

The SERC RAPA program will support the following goals:

- Continue to support NERC Reliability Assessments, Performance Analysis, and System Analysis program data collections, data validation, and analytical efforts.

- 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 tool(s) based upon findings.
- Continue to provide employee analytical training that develops the capability to analyze projected, historical, and operational data, and adds value to annual assessments and studies.
- Complete annual FERC Form 715 and Energy Information Administration (EIA) submittals on behalf of SERC registered entities within specified periods.
- Continue NERC and Regional coordination to improve processes, data collections, and information required to implement enhanced Regional analytical efforts.

## **Resource Requirements**

### **Personnel**

An increase of 1.10 FTEs in Reliability Assessment and Performance Analysis is necessary due to the realignment of personnel supporting the RAPA program.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

### **Meeting & Travel Expenses**

The increase in meeting expenses from 2019 to 2020 is due to larger meeting sizes due to increasing membership. The increase in travel expenses from 2019 to 2020 are due to SERC staff travel in support of NERC initiatives, and as needed to support RAPA meetings, as well as to participate in training and certification activities.

### **Contractors and Consultants**

The 2020 budget includes contractor support for a probabilistic assessment performed through the Resource Adequacy Working Group. The decrease from the 2019 budget is a result of certain contractor-supported studies performed in 2019 that are not performed in 2020.

### **Software**

There is an increase from 2019 to 2020 for software licenses, needed for performing model verification and engineering study support.

**Section A – Statutory Programs Reliability Assessment and Performance Analysis Program Funding Sources and Expenditures**

**Reliability Assessment and Performance Analysis Program Funding Sources and Expenditures**

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
RELIABILITY ASSESSMENT AND PERFORMANCE ANALYSIS					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 2,187,978	\$ 2,187,978	\$ -	\$ 2,240,194	\$ 52,216
Penalty Sanctions	9,068	102,264	93,196	176,744	167,676
<b>Total Statutory Funding</b>	<b>\$ 2,197,046</b>	<b>\$ 2,290,242</b>	<b>\$ 93,196</b>	<b>\$ 2,416,938</b>	<b>\$ 219,892</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	307,590	307,590	2,233	2,233
Interest	-	5,350	5,350	5,581	5,581
<b>Total Revenue (A)</b>	<b>\$ 2,197,046</b>	<b>\$ 2,603,182</b>	<b>\$ 312,940</b>	<b>\$ 2,424,752</b>	<b>\$ 227,706</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 641,291	\$ 848,864	\$ 207,573	\$ 869,968	\$ 228,677
Payroll Taxes	46,814	61,967	15,153	63,508	16,694
Benefits	75,413	90,954	15,541	102,048	26,635
Retirement Costs	82,585	109,354	26,769	111,960	29,375
<b>Total Personnel Expenses</b>	<b>\$ 846,103</b>	<b>\$ 1,111,139</b>	<b>\$ 265,036</b>	<b>\$ 1,147,484</b>	<b>\$ 301,381</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 29,200	\$ 33,300	\$ 4,100	\$ 56,125	\$ 26,925
Travel	56,768	61,768	5,000	63,880	7,112
<b>Total Meeting Expenses</b>	<b>\$ 85,968</b>	<b>\$ 95,068</b>	<b>\$ 9,100</b>	<b>\$ 120,005</b>	<b>\$ 34,037</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 225,000	\$ 255,000	\$ 30,000	\$ 110,000	\$ (115,000)
Office Rent	-	-	-	-	-
Office Costs	1,250	1,250	-	17,800	16,550
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 226,250</b>	<b>\$ 256,250</b>	<b>\$ 30,000</b>	<b>\$ 127,800</b>	<b>\$ (98,450)</b>
<b>Total Direct Expenses</b>	<b>\$ 1,158,321</b>	<b>\$ 1,462,457</b>	<b>\$ 304,136</b>	<b>\$ 1,395,289</b>	<b>\$ 236,968</b>
<b>Indirect Expenses</b>	<b>\$ 1,055,297</b>	<b>\$ 1,089,990</b>	<b>\$ 34,693</b>	<b>\$ 992,935</b>	<b>\$ (62,362)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 2,213,618</b>	<b>\$ 2,552,447</b>	<b>\$ 338,829</b>	<b>\$ 2,388,224</b>	<b>\$ 174,606</b>
<b>Change in Assets</b>	<b>\$ (16,572)</b>	<b>\$ 50,735</b>	<b>\$ (25,889)</b>	<b>\$ 36,528</b>	<b>\$ 53,100</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (16,572)</b>	<b>\$ 170,979</b>	<b>\$ 187,551</b>	<b>\$ 30,698</b>	<b>\$ 47,270</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 2,197,046</b>	<b>\$ 2,723,426</b>	<b>\$ 526,380</b>	<b>\$ 2,418,922</b>	<b>\$ 221,876</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ -</b>	<b>\$ (120,244)</b>	<b>\$ (213,440)</b>	<b>\$ 5,830</b>	<b>\$ 5,830</b>
FTEs	4.90	6.00	1.10	6.00	1.10

**Table A-6. Reliability Assessment and Performance Analysis Budget Detail**

## Training, Education, and Stakeholder Outreach

<b>Training, Education and Stakeholder Outreach</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	3.30	6.00	2.70
Direct Expenses	\$ 894,460	\$ 1,416,164	\$ 521,704
Indirect Expenses	\$ 710,710	\$ 992,935	\$ 282,225
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (11,161)	\$ 30,698	\$ 41,859
Total Funding Requirement	\$ 1,594,009	\$ 2,439,797	\$ 845,788

**Table A-7. Training, Education, and Stakeholder Outreach Budget**

### Program Scope and Functional Description

The SERC Training, Education, and Stakeholder Outreach programs provides education and training necessary to obtain essential knowledge of BPS operations, and provides targeted outreach to its registered entities to increase understanding of security and reliability of the BPS. SERC Training and Education programs have annual scheduled programs directed at external stakeholders. Specifically, Training and Education programs support the continuing education of NERC Certified System Operators, Security Professionals, Compliance Professionals, Trainers, and other supporting professions. Stakeholder Outreach is a voluntary program that brings targeted coaching, training, and education to registered entities.

### 2020 Key Assumptions

SERC Training, Education, and Stakeholder Outreach Program 2020 key assumptions are as follows:

- SERC will support the ERO goal to implement risk-based programs. Achieving this goal will require structured training.
- SERC will use common ERO training methods and curriculum for Regional consistency on required and emerging qualifications and competencies.
- SERC will provide training to operating personnel to promote the reliability and security of the BPS in North America.
- 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 reliability, security, and/or compliance.
- The SERC Training program will maintain SERC’s status as a NERC certified Continuing Education Provider. SERC education programs will focus on developing reliability and security skills of internal and external stakeholders.
- SERC will increase targeted outreach efforts that promote BPS reliability, security, and risk mitigation across its footprint.

### 2020 Goals and Key Deliverables

The SERC Training, Education, and Stakeholder Outreach program will support the following goals:

- 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 NERC Reliability Standards workshops or webinars to BPS system operators, operating support personnel, compliance personnel, and training personnel to explain changed expectations within new or revised Reliability Standards and related procedures and programs, as well as changes in observed performance trends that affect reliability and security.
- Develop and deliver to internal and external stakeholders, timely and effective education that promotes the mission of SERC and the ERO.
- Provide targeted outreach aimed to facilitate a greater understanding of reliability and security risk to the BPS.

## **Resource Requirements**

### **Personnel**

Training and Education has increased its FTE allocation from 2019 to 2020 by 2.70 to reflect an increase in training and targeted outreach efforts. Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

### **Meetings**

The 2020 budget includes an increase for the cost of meetings due to increased membership in the SERC Region. A larger stakeholder group will result in more meetings, or larger meetings with increased cost.

### **Travel**

As the membership of SERC increases, and the staffing in the Training and Education group increases, there is a small increase in travel in 2020. This is a result of training and certification activities for SERC staff, as well as some travel to stakeholder forums.

### **Contractors and Consultants**

The 2020 budget includes contractor support for the System Operator Conferences.

## Training, Education, and Stakeholder Outreach Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
TRAINING AND OUTREACH					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 1,480,253	\$ 1,480,253	\$ -	\$ 2,131,119	\$ 650,866
Penalty Sanctions	6,107	85,220	79,113	176,744	170,637
<b>Total Statutory Funding</b>	<b>\$ 1,486,360</b>	<b>\$ 1,565,473</b>	<b>\$ 79,113</b>	<b>\$ 2,307,863</b>	<b>\$ 821,503</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	107,650	363,975	256,325	132,233	24,583
Interest	-	4,458	4,458	5,581	5,581
<b>Total Revenue (A)</b>	<b>\$ 1,594,010</b>	<b>\$ 1,933,906</b>	<b>\$ 339,896</b>	<b>\$ 2,445,677</b>	<b>\$ 851,667</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 472,590	\$ 521,072	\$ 48,482	\$ 805,778	\$ 333,188
Payroll Taxes	34,701	38,052	3,351	58,822	24,121
Benefits	48,242	62,135	13,893	103,247	55,005
Retirement Costs	60,872	67,945	7,073	103,756	42,884
<b>Total Personnel Expenses</b>	<b>\$ 616,405</b>	<b>\$ 689,204</b>	<b>\$ 72,799</b>	<b>\$ 1,071,603</b>	<b>\$ 455,198</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 101,600	\$ 136,100	\$ 34,500	\$ 137,094	\$ 35,494
Travel	41,000	41,000	-	68,675	27,675
<b>Total Meeting Expenses</b>	<b>\$ 142,600</b>	<b>\$ 177,100</b>	<b>\$ 34,500</b>	<b>\$ 205,769</b>	<b>\$ 63,169</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 135,455	\$ 93,900	\$ (41,555)	\$ 137,000	\$ 1,545
Office Rent	-	-	-	-	-
Office Costs	-	-	-	1,792	1,792
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 135,455</b>	<b>\$ 93,900</b>	<b>\$ (41,555)</b>	<b>\$ 138,792</b>	<b>\$ 3,337</b>
<b>Total Direct Expenses</b>	<b>\$ 894,460</b>	<b>\$ 960,204</b>	<b>\$ 65,744</b>	<b>\$ 1,416,164</b>	<b>\$ 521,704</b>
<b>Indirect Expenses</b>	<b>\$ 710,710</b>	<b>\$ 908,325</b>	<b>\$ 197,615</b>	<b>\$ 992,935</b>	<b>\$ 282,225</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,605,170</b>	<b>\$ 1,868,529</b>	<b>\$ 263,359</b>	<b>\$ 2,409,099</b>	<b>\$ 803,929</b>
<b>Change in Assets</b>	<b>\$ (11,160)</b>	<b>\$ 65,377</b>	<b>\$ 76,537</b>	<b>\$ 36,578</b>	<b>\$ 47,738</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (11,161)</b>	<b>\$ 142,483</b>	<b>\$ 153,644</b>	<b>\$ 30,698</b>	<b>\$ 41,859</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 1,594,009</b>	<b>\$ 2,011,012</b>	<b>\$ 417,003</b>	<b>\$ 2,439,797</b>	<b>\$ 845,788</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 1</b>	<b>\$ (77,106)</b>	<b>\$ (77,107)</b>	<b>\$ 5,880</b>	<b>\$ 5,879</b>
FTEs	3.30	5.00	1.70	6.00	2.70

Table A-8. Training, Education, and Stakeholder Outreach Budget Detail

## Situational Awareness and Infrastructure Security Program

<b>Situation Awareness and Infrastructure Security</b> (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	2.20	2.00	(0.20)
Direct Expenses	\$ 341,741	\$ 371,466	\$ 29,725
Indirect Expenses	\$ 473,807	\$ 330,978	\$ (142,829)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (7,441)	\$ 10,233	\$ 17,674
Total Funding Requirement	\$ 808,107	\$ 712,677	\$ (95,430)

**Table A-9. Situational Awareness and Infrastructure Security Budget**

### Program Scope and Functional Description

The SERC Situational Awareness (SA), Events Analysis (EA) and Infrastructure Security program identifies and analyzes events and conditions that affect or might affect reliable operations. These programs accomplish this 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.

### 2020 Key Assumptions

SERC Situation Awareness and Infrastructure Security Program 2020 key assumptions 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 SA and EA events.
- SERC will continue to review, track, and trend reliability events to support the ERO 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.
- SERC will continue to work with other Regional SA and EA groups to identify conditions or best practices that improve reliability within the BPS.

### 2020 Goals and Key Deliverables

The SERC Situational Awareness and Infrastructure Security program will support the following goals:

- 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 effort.
- Develop SERC Reliability Bulletins and support NERC Lessons Learned initiatives.
- Continue stakeholder outreach efforts that encourage stakeholder participation in the SA and EA programs.
- 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.
- Monitor and evaluate CIP related threats, vulnerabilities, and events for information sharing internally (SERC staff) and externally (registered entities).

## **Resource Requirements**

### **Personnel**

A decrease of 0.2 FTEs is due to the realignment of personnel supporting the Situational Awareness and Infrastructure Security program.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.



**Section A – Statutory Programs Situational Awareness and Infrastructure Security Program Funding Sources and Expenditures**

**Situational Awareness and Infrastructure Security Program Funding Sources and Expenditures**

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
SITUATION AWARENESS AND INFRASTRUCTURE SECURITY					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ 804,036	\$ 804,036	\$ -	\$ 652,876	\$ (151,160)
Penalty Sanctions	4,071	34,088	30,017	58,915	54,844
<b>Total Statutory Funding</b>	<b>\$ 808,107</b>	<b>\$ 838,124</b>	<b>\$ 30,017</b>	<b>\$ 711,791</b>	<b>\$ (96,316)</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	102,530	102,530	744	744
Interest	-	1,783	1,783	1,860	1,860
<b>Total Revenue (A)</b>	<b>\$ 808,107</b>	<b>\$ 942,437</b>	<b>\$ 134,330</b>	<b>\$ 714,395</b>	<b>\$ (93,712)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 240,121	\$ 366,665	\$ 126,544	\$ 258,353	\$ 18,232
Payroll Taxes	17,529	26,767	9,238	18,860	1,331
Benefits	26,828	35,463	8,635	36,683	9,855
Retirement Costs	30,960	47,232	16,272	33,240	2,280
<b>Total Personnel Expenses</b>	<b>\$ 315,438</b>	<b>\$ 476,127</b>	<b>\$ 160,689</b>	<b>\$ 347,136</b>	<b>\$ 31,698</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	-	-	-	320	320
Travel	25,953	25,953	-	22,810	(3,143)
<b>Total Meeting Expenses</b>	<b>\$ 25,953</b>	<b>\$ 25,953</b>	<b>\$ -</b>	<b>\$ 23,130</b>	<b>\$ (2,823)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	-	-	-	-	-
Office Rent	-	-	-	-	-
Office Costs	350	350	-	1,200	850
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 350</b>	<b>\$ 350</b>	<b>\$ -</b>	<b>\$ 1,200</b>	<b>\$ 850</b>
<b>Total Direct Expenses</b>	<b>\$ 341,741</b>	<b>\$ 502,430</b>	<b>\$ 160,689</b>	<b>\$ 371,466</b>	<b>\$ 29,725</b>
<b>Indirect Expenses</b>	<b>\$ 473,807</b>	<b>\$ 363,330</b>	<b>\$ (110,477)</b>	<b>\$ 330,978</b>	<b>\$ (142,829)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 815,548</b>	<b>\$ 865,760</b>	<b>\$ 50,212</b>	<b>\$ 702,444</b>	<b>\$ (113,104)</b>
<b>Change in Assets</b>	<b>\$ (7,441)</b>	<b>\$ 76,677</b>	<b>\$ 84,118</b>	<b>\$ 11,951</b>	<b>\$ 19,392</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (7,441)</b>	<b>\$ 56,993</b>	<b>\$ 64,434</b>	<b>\$ 10,233</b>	<b>\$ 17,674</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 808,107</b>	<b>\$ 922,753</b>	<b>\$ 114,646</b>	<b>\$ 712,677</b>	<b>\$ (95,430)</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ -</b>	<b>\$ 19,684</b>	<b>\$ 19,684</b>	<b>\$ 1,718</b>	<b>\$ 1,718</b>
FTEs	2.20	2.00	(0.20)	2.00	(0.20)

**Table A-10. Situational Awareness and Infrastructure Security Budget Detail**

## Corporate Services

Corporate Services (in whole dollars)						
Direct Expenses and Fixed Assets						
	2019 Budget	2020 Budget	Increase (Decrease)	FTEs 2019 Budget	FTEs 2020 Budget	Increase (Decrease)
Technical Committees and Member Forums	\$ 1,109,412	\$ 998,375	\$ (111,037)	4.70	4.00	(0.70)
General and Administrative	\$ 3,195,436	\$ 3,750,386	\$ 554,950	8.75	11.00	2.25
Legal and Regulatory	\$ 1,059,741	\$ 1,681,173	\$ 621,432	4.45	3.70	(0.75)
Analytics & Information Technology	\$ 2,883,755	\$ 3,049,617	\$ 165,862	9.45	8.00	(1.45)
Human Resources	\$ 753,405	\$ 1,013,461	\$ 260,056	2.90	3.40	0.50
Accounting and Finance	\$ 505,758	\$ 511,036	\$ 5,278	2.90	3.40	0.50
Total Corporate Services	\$ 9,507,507	\$ 11,004,048	\$ 1,496,541	33.15	33.50	0.35

**Table A-11. Corporate Services Budget**

### Program Scope and Functional Description

SERC's Corporate Services area includes the budget for all business and administrative functions of the organization:

- Technical Committees and Member Forums
- General and Administrative
- Legal and Regulatory
- Analytics and IT
- Human Resources
- Finance and Accounting

### Methodology for Allocation of Administrative Services Expenses to Programs

Expenses related to indirect programs are allocated proportionally to the direct programs for 2020 based on the number of FTEs in those programs.

## 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 SERC's reliability 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 on the BPS.

### 2020 Key Assumptions

SERC Technical Committees and Member Forums 2020 key assumptions are as follows:

- SERC will continue its technical committee and subgroup structure for effective stakeholder involvement in 2020.
- 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 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 and optimize, as required.
- The SERC Technical Committees and Member Forums programs will manage committee work according to the *Organization and Procedures Manual for SERC Technical Committees*.

### 2020 Goals and Key Deliverables

The SERC Technical Committees and Member Forums programs will address reliability risks by doing the following:

- Convene regular meetings of the standing committees and the subordinate groups, as necessary.
- Communicate to the SERC Board of Directors and SERC staff on issues pertaining to operation, planning, and engineering of the Bulk Power System, and the advancement of the physical and cyber security of the BES.
- 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 SERC Board of Directors.
- Participate in the establishment of Reliability Standards.
- 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.
- Provide key inputs from the SERC Reliability Risk Team for the CMEP Implementation Plan.

## Resource Requirements

### Personnel

FTE's in Technical Committees and Member Forums decreased 0.70 from 2019 to 2020 due to reorganization of resources in the area of Reliability Standards and Training and Stakeholder Outreach. Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

### Meetings

Meeting expenses in 2020 reflect a decrease from 2019 when several meetings were moved to an off-site location at an additional cost.

### Travel

Travel expenses increased from 2019 to 2020 as a result of the decreased vacancy rate. As we have filled vacancies in this group, we are participating to a greater degree in activities that require travel.

### Consultants

Consultant costs have increased from 2019 budget levels to 2020 as we are integrating the FRCC entities in 2019, and our percentage of ERAG costs will increase in 2020 as a result.

## General and Administrative

### Program Scope and Functional Description

The SERC General and Administrative function provides executive management of the corporation, management of the SERC office and other administrative support programs, and provides coordinated and consistent outreach to stakeholders, members, and regulators. The department ensures that there is adequate attention to the execution of the SERC strategic priorities and the day-to-day management of the corporation.

### 2020 Key Assumptions

SERC General and Administrative 2020 key assumptions are as follows:

- SERC will emphasize effective execution, efficiency, transparency, and consistency.
- SERC will facilitate reliability-enhancing activities.
- SERC will continue its outreach and communication with members/stakeholders to ensure SERC's effectiveness.

### 2020 Goals and Key Deliverables

The SERC General and Administrative function will support the following goals:

- Continue high-quality performance of delegated functions while maintaining a level resource requirement.
- Provide pertinent and timely information to members/stakeholders to improve efficiency of interactions with SERC staff.

### Resource Requirements

#### Personnel

An increase of 2.25 FTE in General and Administrative consists of the following:

- Reallocation of the Strategic Development group into G&A for better alignment with the Executive Team's Mission and Vision work

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs, causing each expense to increase from the previous year. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in overall benefits.

#### Contractors and Consultants

The 2020 budget includes support for corporate goals including facilitation of cultural reset initiative and integration of FRCC staff and registered entities.

## 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 CEO, Board of Directors, 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 providing input on matters for the Board of Directors' 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 Compliance actions and other assistance.
- Provide legal counsel during Compliance and Enforcement proceedings.
- Interface with the appropriate authorities regarding responses/filings to related governmental/regulatory directives/orders.
- Assist in the development of and ensure proper administration of SERC corporate policies and procedures.
- Manage relationships with SERC's outside counsel.

### 2020 Key Assumptions

SERC Legal and Regulatory 2020 key assumptions are as follows:

- SERC will modify its governance structure to integrate a smaller Board of Directors, add a Members Committee, and add Independent Directors to the Board of Directors through bylaw and other corresponding scope document changes.
- SERC will continue to support the processing of Enforcement violations 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 in filings to FERC.
- SERC will proactively engage with NERC and FERC to help ensure SERC's continued recognition as a Regional Entity.

### 2020 Goals and Key Deliverables

The SERC Legal and Regulatory program will support the following goals:

- Modify SERC's bylaws and obtain all necessary regulatory approvals from the SERC Board of Directors, the NERC Board of Trustees, and (FERC).

- Work with Enforcement to support processing violations, 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.
- Work with NERC and other Regions on obtaining renewal of SERC’s Regional Delegation Agreement with NERC.

## **Resource Requirements**

### **Personnel**

Legal and Regulatory decreased the FTE allocation by 0.75 from 2019 to 2020 due to a reallocation of the former Board Liaison position to G&A.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC’s insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

### **Meeting Expenses**

The 2020 budget includes increased meeting and travel expenses, primarily related to board and committee governance activities to better reflect historical norms and the addition of a board liaison.

### **Contractors and Consultants**

The 2020 budget includes a consultant to the Board.

### **Professional Services**

An increase in legal fees is primarily due to the costs of outside counsel to provide advice on modifications to the SERC bylaws and other governing documents, as well as any potential outside counsel needed for corporate and employment-related matters.

## Analytics and IT

### Program Scope and Functional Description

The Analytics and IT department of SERC provides technology innovation, and develops insights through data for the corporation. Analytics and IT comprises the following functions:

- Information Technology
- Data Analytics

The Information Technology (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. IT executes these functions:

- Host, maintain, develop, and improve SERC's information systems.
- Maintain network and computer infrastructure at both public and private facilities.
- Ensure protection of SERC and entity data.
- Provide onsite end user support and services to conduct SERC business.

The Data Analytics (DA) 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 focus areas across the SERC Region. DA executes these functions:

- Data Collection and Cleansing
- Evaluate Data to Determine Risk
- Data Visualization and Reporting
- Insight Development
- Calculation of operations metrics

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 *Business Plan and Budget* 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 *Business Plan and Budget*.

### 2020 Key Assumptions

SERC Analytics and IT 2020 key assumptions are as follows:

- SERC and NPCC will continue to work together on the Compliance Portal, enabling SERC to share the total cost of maintenance and development.
- SERC's allocated portion of shared Compliance Portal expenses will increase as a result of the transfer of entities from FRCC.



- SERC will migrate to the new Align tool as its releases are implemented. Therefore, with fewer development requirements expected for the Compliance Portal, spending in this area will decrease.
- SERC will migrate to shared ERO services (e.g., Cisco WebEx, KnowBe4).
- SERC IT will continue to purchase and maintain a hardware and software lifecycle necessary to conduct business.
- SERC will continue to use contracted staff for IT support.
- SERC will continue utilizing secure third party hosting centers.
- SERC will continue to support ERO sponsored security programs (e.g., CRISP, Illusive).

### **2020 Goals and Key Deliverables**

The SERC Analytics and IT department will support the following goals:

- Improve the capabilities of SERC's Business Intelligence Center (BIC) to include internally focused operations reporting.
- Upgrade IT infrastructure per lifecycle management.
- Improve cyber and physical security controls to defend against emerging threats.
- IT will move to a single document management solution.
- SERC will implement new ERO sponsored security and IT consolidation efforts.

### **Resource Requirements**

#### **Personnel**

SERC has realigned certain roles and responsibilities from other program areas to centralize data analytics and move project management support into General & Administrative, resulting in a decrease of 1.45 FTEs in Analytics and IT.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

#### **Travel Expenses**

Travel expense increases are due to increased employee participation in various committees, including NERC supported projects, as well as training and certification related travel.

#### **Contractors and Consultants**

The 2020 budget includes contractor support for IT staff, infrastructure hosting, software and application development, systems maintenance, database administration, and cyber and physical security assessments.

## 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 its most valuable resources—its employees. By its nature, the Human Resources department takes on a variety of responsibilities, including strategic and succession planning, hiring for fit, protecting against liability, employee engagement, compensation analysis, and benefits administration.

### 2020 Key Assumptions

SERC Human Resources 2020 key assumptions are as follows:

- SERC assumes a vacancy rate to total Personnel Expenses.
- SERC will provide competitive compensation and benefits packages.
- SERC will assume an increased expectation for staff skills training.
- SERC will ensure that staff attains elevated professional credentials to become 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.

### 2020 Goals and Key Deliverables

SERC Human Resources will support the following goals:

- Increase employee engagement and empowerment.
- Attract, develop, and retain highly competent and motivated staff.
- Review compensation and benefits continually to ensure organization and industry competitiveness.
- Create growth and development plans for key employees.
- Lead efforts to make SERC a best place to work.

### Resource Requirements

#### Personnel

Changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs, causing each expense to increase from the previous year. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC's insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in overall benefits.

#### Contractors and Consultants

The 2020 budget includes contractor support for leadership development.

## Finance and Accounting

### Program Scope and Functional Description

The SERC Finance department provides accounting, analytical, and treasury services for SERC by performing the following functions:

- Develop SERC’s Business Plan and Budget, and provide ongoing financial analysis regarding actual expenditures and forecasts.
- Prepare monthly, quarterly, and annual financial statements.
- Review and refine 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.
- Manage accounts payable, accounts receivable, and fixed assets.

### 2020 Key Assumptions

SERC Finance and Accounting 2020 key assumptions are as follows:

- Current accounting systems and controls are effective.
- There are no major changes in applicable accounting regulations.

### 2020 Goals and Key Deliverables

SERC Finance and Accounting will support the following goals:

- 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 SERC Board.
- Ensure SERC has effective financial controls and exercises fiscal prudence.

## Resource Requirements

### Personnel

Finance has increased the FTE allocation by 0.50 from 2019 to 2020 with the addition of a Staff Accountant position.

Other changes in Personnel Expenses consist of the following:

- The 2020 budget includes an average payroll tax rate and benefit rate that have been applied to all FTEs. Training, education, and relocation amounts change year over year and account for the fluctuations in the overall benefits.
- SERC’s insurance plan period is June 1 through May 31. SERC received an increase in premiums from the previous plan year, which will affect a portion of 2020. SERC is anticipating an additional increase in premiums for the second half of 2020 related to medical insurance, causing an increase in medical benefits.

## Corporate Services Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
CORPORATE SERVICES					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
SERC Assessments	\$ (547,584)	\$ (547,584)	\$ -	\$ -	\$ 547,584
Penalty Sanctions	-	-	-	-	-
<b>Total Statutory Funding</b>	<b>\$ (547,584)</b>	<b>\$ (547,584)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 547,584</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	18,400	-	(18,400)	-	(18,400)
Interest	1,000	-	(1,000)	-	(1,000)
<b>Total Revenue (A)</b>	<b>\$ (528,184)</b>	<b>\$ (547,584)</b>	<b>\$ (19,400)</b>	<b>\$ -</b>	<b>\$ 528,184</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,547,960	\$ 4,846,109	\$ 298,149	\$ 4,847,169	\$ 299,209
Payroll Taxes	328,367	319,678	(8,689)	350,164	21,797
Benefits	544,349	895,174	350,825	747,807	203,458
Retirement Costs	592,262	580,378	(11,884)	628,557	36,295
<b>Total Personnel Expenses</b>	<b>\$ 6,012,938</b>	<b>\$ 6,641,339</b>	<b>\$ 628,401</b>	<b>\$ 6,573,697</b>	<b>\$ 560,759</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 197,600	\$ 375,600	\$ 178,000	\$ 291,350	\$ 93,750
Travel	171,801	216,801	45,000	201,973	30,172
<b>Total Meeting Expenses</b>	<b>\$ 369,401</b>	<b>\$ 592,401</b>	<b>\$ 223,000</b>	<b>\$ 493,323</b>	<b>\$ 123,922</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,497,651	\$ 1,564,581	\$ 66,930	\$ 1,996,580	\$ 498,929
Office Rent	785,196	785,196	-	789,276	4,080
Office Costs	511,531	657,380	145,849	655,032	143,501
Professional Services	110,340	150,340	40,000	166,140	55,800
Miscellaneous	450	-	(450)	-	(450)
<b>Total Operating Expenses</b>	<b>\$ 2,905,168</b>	<b>\$ 3,157,497</b>	<b>\$ 252,329</b>	<b>\$ 3,607,028</b>	<b>\$ 701,860</b>
<b>Total Direct Expenses</b>	<b>\$ 9,287,507</b>	<b>\$ 10,391,237</b>	<b>\$ 1,103,730</b>	<b>\$ 10,674,048</b>	<b>\$ 1,386,541</b>
<b>Indirect Expenses</b>	<b>\$ (9,287,507)</b>	<b>\$ (10,391,237)</b>	<b>\$ (1,103,730)</b>	<b>\$ (10,674,048)</b>	<b>\$ (1,386,541)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Assets</b>	<b>\$ (528,184)</b>	<b>\$ (547,584)</b>	<b>\$ (19,400)</b>	<b>\$ -</b>	<b>\$ 528,184</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (528,184)</b>	<b>\$ (547,584)</b>	<b>\$ (19,400)</b>	<b>\$ -</b>	<b>\$ 528,184</b>
FTEs	33.15	30.70	(2.45)	33.50	0.35

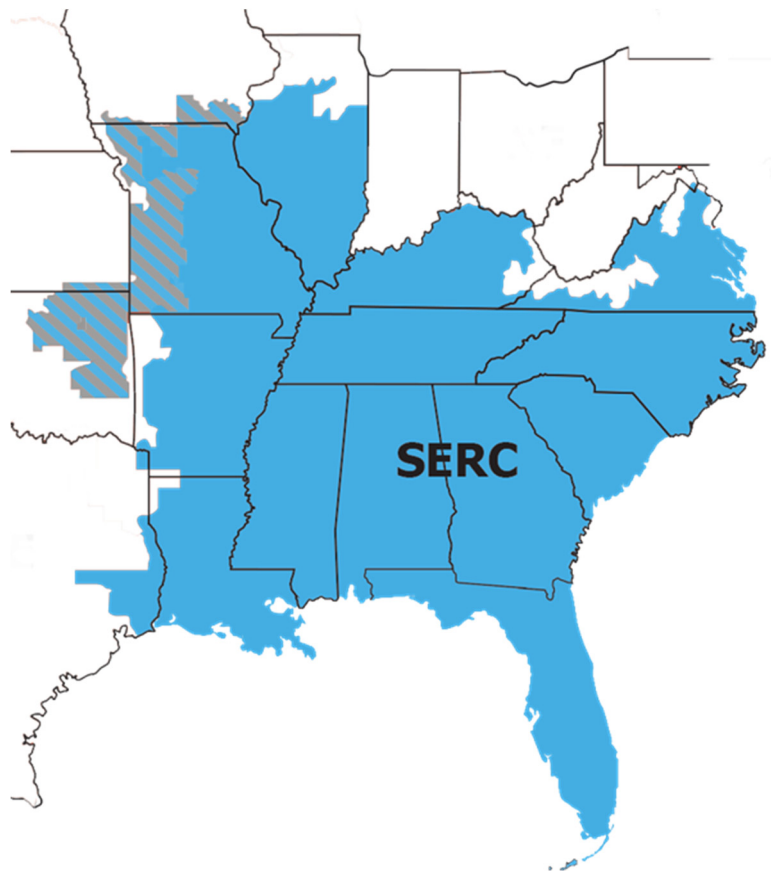
Table A-12. Corporate Services Budget Detail

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## Section B – Supplemental Financial Information

### 2020 Business Plan and Budget

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## Section B – Supplemental Financial Information

### Reserve Balance

Working Capital Reserve Analysis 2019-2020	
STATUTORY	
<b>Beginning Working Capital Reserve (Deficit), December 31, 2018</b>	\$ 2,945,995
Plus: 2019 Funding (from Load-Serving Entities (LSE) or designees)	18,347,134
Plus: 2019 Other funding sources	3,125,511
Less: 2019 Projected expenses & capital expenditures	(23,276,025)
<b>Projected Working Capital Reserve (Deficit), December 31, 2019</b>	<b>\$ 1,142,615</b>
 <b>Desired Working Capital Reserve, December 31, 2020<sup>1</sup></b>	 \$ 1,201,726
Less: Projected Working Capital Reserve, December 31, 2019	(1,142,615)
<b>Increase(Decrease) in Assessments to Achieve Desired Working Capital Reserve</b>	<b>\$ 59,111</b>
 2020 Expenses and Capital Expenditures	 \$ 24,525,013
Less: Penalty Sanctions <sup>2</sup>	(1,900,000)
Less: Other Funding Sources	(225,001)
Adjustment to achieve desired Working Capital Reserve	59,111
<b>2020 SERC Assessment</b>	<b>\$ 22,459,123</b>

<sup>1</sup> As documented in the April 23, 2008 minutes, the SERC Board of Directors has approved the establishment of a cash reserve equal to up to 10% of its budgeted annual statutory operating costs.

In July 2013, the SERC Board approved the establishment of a working capital policy. Any excess income greater than two months of statutory operating costs will be treated as a temporary increase in SERC's operating reserve. Any expenditures from the increased working capital are subject to SERC's applicable policies and procedures, including approval limits, signature authorities, and disclosure in SERC's quarterly variance report.

<sup>2</sup> Represents collections on or prior to June 30, 2019 and additional sanctions approved by NERC, less anticipated use of such funds in 2019. See Table B-2 for full disclosure.

**Table B-1. Working Capital Reserve Analysis 2019- 2020**

### Explanation of Changes in Reserve Policy from Prior Years

Pursuant to SERC's Cash Reserves Policy, the desired working capital reserve included in the *2020 Business Plan and Budget* totals \$1,201,726. SERC adjusted the 2020 ERO Assessment by \$59,111 to increase its Working Capital Reserve to the desired amount.

## Breakdown by Statement of Activity Sections

The following detailed schedules support the Statement of Activities and Capital Expenditures, page 11, of the *2020 Business Plan and Budget*. All significant variances have been disclosed by program area on the preceding pages.

### Penalty Sanctions

The NERC Policy – Accounting, Financial Statement and Budgetary Treatment of Penalties Imposed and Received for Violations of Reliability Standard, as well as § 1107.2 of the ROP, specify 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 NERC Board approved an updated Working Capital and Operating Reserves Policy that was approved by FERC. This updated policy allows NERC, with Board and FERC approval pursuant to § 1107.4 of the ROP, to place penalty funds into an Assessment Stabilization Reserve for use in future years to offset assessments. SERC is pursuing a similar strategy to establish this same reserve at the regional entity level, with FERC approval.

As standard practice, NERC and the Regional Entities do not budget for, or assume collection of, penalties that are yet to be determined or approved. However, penalties that are approved and already received will be included in the budgeting process. Additionally, penalties that have been determined, approved by NERC and/or FERC, but are yet to be received, may also be considered when material to the organization and the calculation of assessments.

Subject to FERC approval of the proposed use of penalty collections as described in this paragraph, SERC will be applying \$829,718 of penalty sanctions collected during the period July 1, 2018 – June 30, 2019 toward the funding of expenses incurred in 2019 associated with the registered entity transfer. In addition, SERC will apply \$1,900,000 of penalty sanctions approved by NERC, and currently being reviewed by FERC for assessment stabilization purposes to reduce the 2020 assessment. Should this penalty not be collected until after June 30, 2019, SERC requests NERC's and FERC's approval, pursuant to §1107.4 of the ROP and as an exception to §1107.2, to use this amount for assessment stabilization purposes in calculating SERC's 2020 assessment. Should FERC not approve the anticipated \$1,900,000 in penalty sanctions, SERC anticipates using a combination of existing working capital and operating reserves, SERC's line of credit, and deferring certain expenses to supplement approved funding.

**Allocation Method:** Penalty sanctions received have been allocated to the following statutory programs to reduce assessments: Reliability Standards; Compliance Monitoring and Enforcement and Organization Registration and Certification; Reliability Assessments and Performance Analysis; Training, Education and Stakeholder Outreach; and Situation Awareness and Infrastructure Security. 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.

All penalties received prior to July 1, 2019, are detailed below, including the amount and date received.

Table B-2 lists all penalties, including date received and amount, received prior to June 30, 2019.

Penalty Sanctions Received on or Prior to June 30, 2019		
Payment	Date Received	Amount Received
2020 Budget Penalty Payments:		
Penalty payment 1	9/14/2018	100,000
Penalty payment 2	9/18/2018	200,000
Penalty payment 3	9/19/2018	200,000
Penalty payment 4	10/29/2018	95,000
Penalty payment 5	11/2/2018	220,000
Penalty payment 6	2/26/2019	14,718
Penalty payment 7	TBD	1,900,000
<b>Total Penalties Received</b>		<b>2,729,718</b>
<b>Less: Penalty payments applied toward 2019 FRCC funding</b>		<b>(829,718)</b>
<b>Penalties Offset to Assessments</b>		<b>1,900,000</b>

**Table B-2. Penalty Sanctions Received**



Table B-3 lists the budget for Supplemental Funding.

Other Revenue Breakdown By Program (Excludes Assessments & Penalty Sanctions)	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget
<b>Reliability Standards</b>				
Workshops & Miscellaneous	\$ -	\$ 30,759	\$ 372	\$ 372
Interest	\$ -	\$ 535	\$ 930	\$ 930
<b>Total</b>	<b>\$ -</b>	<b>\$ 31,294</b>	<b>\$ 1,302</b>	<b>\$ 1,302</b>
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>				
Workshops & Miscellaneous	\$ 34,500	\$ 2,235,157	\$ 29,418	\$ (5,082)
Interest	-	38,874	46,048	46,048
<b>Total</b>	<b>\$ 34,500</b>	<b>\$ 2,274,031</b>	<b>\$ 75,466</b>	<b>\$ 40,966</b>
<b>Reliability Assessment and Performance Analysis</b>				
Workshops & Miscellaneous	\$ -	\$ 307,590	\$ 2,233	\$ 2,233
Interest	\$ -	\$ 5,350	\$ 5,581	\$ 5,581
<b>Total</b>	<b>\$ -</b>	<b>\$ 312,940</b>	<b>\$ 7,814</b>	<b>\$ 7,814</b>
<b>Training, Education and Stakeholder Outreach</b>				
Workshops & Miscellaneous	\$ 107,650	\$ 363,975	\$ 132,233	\$ 24,583
Interest	-	4,458	5,581	5,581
<b>Total</b>	<b>\$ 107,650</b>	<b>\$ 368,433</b>	<b>\$ 137,814</b>	<b>\$ 30,164</b>
<b>Situation Awareness and Infrastructure Security</b>				
Workshops & Miscellaneous	\$ -	\$ 102,530	\$ 744	\$ 744
Interest	\$ -	\$ 1,783	\$ 1,860	\$ 1,860
<b>Total</b>	<b>\$ -</b>	<b>\$ 104,313</b>	<b>\$ 2,604</b>	<b>\$ 2,604</b>
<b>Corporate Services</b>				
Workshops & Miscellaneous	\$ 18,400	\$ -	\$ -	\$ (18,400)
Interest	\$ 1,000	\$ -	\$ -	\$ (1,000)
<b>Total</b>	<b>\$ 19,400</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (19,400)</b>
<b>Total Outside Funding</b>	<b>\$ 161,550</b>	<b>\$ 3,091,011</b>	<b>\$ 225,000</b>	<b>\$ 63,450</b>

**Table B-3. Supplemental Funding**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

**Compliance Monitoring, Enforcement, and Organization Registration** – The decrease in miscellaneous funding in 2020 from the 2019 Budget is due to the termination of SERC’s Compliance Enforcement Agent agreement with FRCC. (The large amount of Workshops & Miscellaneous Funding in the 2019 Projection represents the receipt of third quarter and fourth quarter FRCC assessment collections.) Additional workshop fees from projected increased attendance partially offset the decrease.

**Training and Education** – Increased attendance at System Operator Conferences is anticipated in 2020 due to the addition of FRCC registered entities.

**Corporate Services** – Additional attendance at Technical Committee Workshops is expected to increase revenue in 2020. Interest is increasing due to new treasury management initiatives.

Table B-4 summarizes Personnel Expenses.

Personnel Expenses	Budget 2019	Projection 2019	Budget	2020	Variance 2019 Budget v 2020	
					Budget	Variance %
<b>Total Salaries</b>	\$ 10,276,729	\$ 12,443,871	\$ 14,135,381	\$ 3,858,652	37.5%	
<b>Total Payroll Taxes</b>	\$ 746,769	\$ 874,329	\$ 1,028,204	\$ 281,435	37.7%	
<b>Total Benefits</b>	\$ 1,172,398	\$ 1,669,962	\$ 1,843,729	\$ 671,331	57.3%	
<b>Total Retirement</b>	\$ 1,330,427	\$ 1,576,639	\$ 1,824,182	\$ 493,755	37.1%	
<b>Total Personnel Costs</b>	<b>\$ 13,526,323</b>	<b>\$ 16,564,801</b>	<b>\$ 18,831,496</b>	<b>\$ 5,305,173</b>	<b>39.2%</b>	
<b>FTEs</b>	78.0	88.0	98.0	20.0	25.6%	
<b>Cost per FTE</b>						
Salaries	\$ 131,753	\$ 141,408	\$ 144,239	\$ 12,486	9.5%	
Payroll Taxes	9,574	9,936	10,492	918	9.6%	
Benefits	15,031	18,977	18,814	3,783	25.2%	
Retirement	17,057	17,916	18,614	1,557	9.1%	
<b>Total Cost per FTE</b>	<b>\$ 173,414</b>	<b>\$ 188,236</b>	<b>\$ 192,158</b>	<b>\$ 18,744</b>	<b>10.8%</b>	

**Table B-4. Personnel Expenses**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

The budget reflects a Board approved merit increase and an increase in medical insurance premiums. A vacancy rate has been applied to all personnel costs. The vacancy rate applied to all personnel costs reflects a decrease from 10% in 2019 to 8% in 2020. Approximately \$4.4 million of the overall increase in Personnel Expenses is attributable to the addition of 20 FTEs to support activities associated with registered entities transferred to SERC from FRCC.

Table B-5 lists the budget for Meeting Expenses.

Meeting, Conference & Travel Expense	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	
					Variance %
Meeting & Conference Expenses	\$ 336,700	\$ 608,300	\$ 521,824	\$ 185,124	55.0%
Travel Expenses	\$ 648,922	\$ 788,922	\$ 805,148	\$ 156,226	24.1%
<b>Total Meeting, Conference &amp; Travel Expenses</b>	<b>\$ 985,622</b>	<b>\$ 1,397,222</b>	<b>\$ 1,326,972</b>	<b>\$ 341,350</b>	<b>34.6%</b>

**Table B-5. Meeting Expenses**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

The 2020 budget includes increased meeting expenses, primarily related to board and committee governance activities to reflect the increase in board size associated with the transfer of FRCC entities. Meeting expenses in Training and Education show an increase for larger System Operator Conferences. CMEP anticipates additional meeting expenses for the expanded compliance and enforcement staff.

Budgeted expense for conference calls has been decreased to reflect expected reductions in expense with the ERO shared WebEx contract.

Travel expenses reflect an increase in travel for both CMEP training and additional audits due to the transfer of FRCC registered entities to SERC. Expanded Stakeholder Outreach efforts will also increase travel expenses.

Table B-6 lists the budget for Consultants and Contracts.

Consultants and Contracts	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020	
				Budget	Variance %
<b>Consultants</b>					
Reliability Standards	\$ -	\$ -	\$ -	-	
Compliance Monitoring and Enforcement and Organization Registration and Certification	120,375	156,000	126,000	5,625	4.7%
Reliability Assessment and Performance Analysis	225,000	255,000	110,000	(115,000)	(51.1%)
Training and Outreach	135,455	93,900	137,000	1,545	1.1%
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	1,497,651	1,564,581	1,996,580	498,929	33.3%
<b>Total Consultants and Contracts</b>	<b>\$ 1,978,481</b>	<b>\$ 2,069,481</b>	<b>\$ 2,369,580</b>	<b>\$ 391,099</b>	<b>19.8%</b>

**Table B-6. Consultants and Contracts**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

**Reliability Assessments** – A decrease of \$115k in the program is a result of certain contractor-supported studies performed in 2019 that will not be performed in 2020. Contractor support is included for a probabilistic assessment performed through the Resource Adequacy Working Group, and for the performance of special reliability assessments of the SERC footprint.

#### Corporate Services:

- **Committee and Member Forums** – An increase of \$28k due to FRCC ERAG expense that will be absorbed by SERC.
- **Legal and Regulatory** – An increase of \$450k is a result of executive search fees for the addition of independent board members expected in 2021.
- **Analytics and IT** – SERC outsources the majority of IT related support, and is expecting an increase for support of additional FTEs due to the addition of registered entities transferred from FRCC, in addition to a contract increase of 3% in 2020.

Table B-7 lists the budget for Office Rent.

Office Rent	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget		Variance %
Office Rent	\$ 785,196	\$ 785,196	\$ 789,276	\$ 4,080		0.5%
Utilities	-	-	-	-		0.0%
Maintenance	-	-	-	-		0.0%
<b>Total Office Rent</b>	<b>\$ 785,196</b>	<b>\$ 785,196</b>	<b>\$ 789,276</b>	<b>\$ 4,080</b>		<b>0.5%</b>

**Table B-7. Office Rent**

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

There is no significant budget variance in Office Rent.

Table B-8 lists the budget for Office Costs.

Office Costs	Budget		Projection		Variance				
	2019	2019	2019	2020	2019 Budget v 2020 Budget	Variance %			
Telephone	\$	103,250	\$	108,910	\$	138,900	\$	35,650	34.5%
Office Supplies		68,300		86,533		102,396		34,096	49.9%
Computer Supplies and Maintenance				-		-		-	
Computers and Supplies		80,000		128,371		108,000		28,000	35.0%
Software		122,796		122,796		168,558		45,762	37.3%
Network Supplies		-		70,000		16,700		16,700	
Publications & Subscriptions		2,033		2,033		8,135		6,102	300.1%
Dues		16,795		16,795		31,106		14,311	85.2%
Postage		500		500		500		-	0.0%
Express Shipping		4,600		4,600		4,500		(100)	(2.2%)
Copying		6,000		6,735		6,300		300	5.0%
Equipment Repair/Service Contracts		31,712		31,712		32,154		442	1.4%
Bank Charges		4,200		4,200		3,600		(600)	(14.3%)
Taxes		25,000		25,000		25,000		-	0.0%
Merchant Credit Card Fees		10,800		10,800		11,700		900	8.3%
Insurance - Commercial		60,000		60,000		54,000		(6,000)	(10.0%)
<b>Total Office Costs</b>	<b>\$</b>	<b>535,986</b>	<b>\$</b>	<b>678,985</b>	<b>\$</b>	<b>711,549</b>	<b>\$</b>	<b>175,563</b>	<b>32.8%</b>

**Table B-8. Office Costs**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

Overall, office costs reflect an increase due to addition of 20 new FTEs.

Telephone cost increases are due to additional equipment and cell phone lines required for new staff.

Office Supplies increased for new staff and to better reflect historical norms.

Computers and Supplies are increasing for planned upgrades of laptops and equipment as part of the IT department's refresh program.

Software costs in 2020 reflect an additional expense for Finance and Accounting Accounts Payable software, and the annual license renewal of Power System Simulator for Engineers used by RAPA.

Table B-9 lists the budget for Professional Services.

Professional Services	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020	
				Budget	Variance %
Outside Legal	82,500	122,500	137,000	54,500	66.1%
Accounting & Auditing Fees	27,840	27,840	29,140	1,300	4.7%
<b>Total Services</b>	<b>\$ 110,340</b>	<b>\$ 150,340</b>	<b>\$ 166,140</b>	<b>\$ 55,800</b>	<b>50.6%</b>

**Table B-9. Professional Services**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

Outside Legal expenses are increasing as SERC continues a review of its bylaws.

Table B-10 lists the budget for Miscellaneous.

Miscellaneous Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget		Variance %
Miscellaneous	\$ 3,000	\$ 3,000	\$ 1,200	\$ (1,800)	(60.0%)	
<b>Total Miscellaneous Expenses</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>	<b>\$ 1,200</b>	<b>\$ (1,800)</b>	<b>(60.0%)</b>	

**Table B-10. Miscellaneous**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

There is no significant budget variance in Miscellaneous Expense.



Table B-11 lists the budget for other Non-Operating Expenses.

Other Non-Operating Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020	
				Budget	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment	-	-	-	-	-
Office Relocation	-	-	-	-	-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

**Table B-11. Other Non-Operating Expenses**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

There are no costs budgeted for these items in 2019 or 2020.

Table B-12 lists the budget for Fixed Assets.

Fixed Assets	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020	
				Budget	Variance %
Computer & Software CapEx	\$ 220,000	\$ 380,000	\$ 330,000	\$ 110,000	50.0%
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	1,250,000	-	-	-
	<b>\$ 220,000</b>	<b>\$ 1,630,000</b>	<b>\$ 330,000</b>	<b>\$ 110,000</b>	<b>50.0%</b>

**Table B-12. Fixed Assets**

### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

An increase of \$110,000 is due to a server refresh and the purchase of Corporate Services software.

Table B-13 compares the 2020 budget with projections for 2021-2022, based on the following assumptions:

**Personnel Expenses**

- No changes in FTEs
- A Board approved annual increase in personnel costs for 3% merit pay increases in 2021 and 2022
- Annual increase in insurance premiums
- Continuation of historic vacancy rates

**Meeting Expenses**

- Meetings and travel costs include a 1% inflationary increase for both 2021 and 2022.

**Operating Expenses**

- Consultants and contracts reduced in 2021 due to the one-time independent board member search fee (2020 expense). Associated independent board member compensation was added to professional services.
- A 1% inflation rate was applied to office costs.
- Office rent and miscellaneous remain flat for both 2020 and 2021.

Statement of Activities and Capital Expenditures								
2019 Budget & Projected 2020 and 2021 Budgets								
Statutory								
	2020	2021	\$ Change	% Change	2022	\$ Change	% Change	
	Budget	Projection	20 v 21	20 v 21	Projection	21 v 22	21 v 22	
<b>Revenue</b>								
<b>Statutory Funding</b>								
SERC Assessments	\$ 22,459,123	\$ 23,477,218	\$ 1,018,095	4.5%	\$ 24,548,382	\$ 1,071,164	4.6%	
Penalty Sanctions	1,900,000	2,500,000	600,000	31.6%	900,000	(1,600,000)	(64.0%)	
<b>Total Statutory Funding</b>	<b>\$ 24,359,123</b>	<b>\$ 25,977,218</b>	<b>\$ 1,618,095</b>	<b>6.6%</b>	<b>\$ 25,448,382</b>	<b>\$ (528,836)</b>	<b>(2.0%)</b>	
Membership Fees	\$ -	\$ -	\$ -		\$ -	\$ -		
Workshops & Miscellaneous	165,000	165,000	-	0.0%	165,000	-	0.0%	
Interest	60,000	60,000	-	0.0%	60,000	-	0.0%	
<b>Total Revenue (A)</b>	<b>\$ 24,584,123</b>	<b>\$ 26,202,218</b>	<b>\$ 1,618,095</b>	<b>6.6%</b>	<b>\$ 25,673,382</b>	<b>\$ (528,836)</b>	<b>(2.0%)</b>	
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 14,135,381	\$ 14,559,442	\$ 424,061	3.0%	\$ 14,996,226	\$ 436,783	3.0%	
Payroll Taxes	1,028,204	1,059,050	30,846	3.0%	1,090,822	31,772	3.0%	
Benefits	1,843,729	1,935,915	92,186	5.0%	2,032,711	96,796	5.0%	
Retirement Costs	1,824,182	1,878,907	54,725	3.0%	1,935,275	56,367	3.0%	
<b>Total Personnel Expenses</b>	<b>\$ 18,831,496</b>	<b>\$ 19,433,315</b>	<b>\$ 601,819</b>	<b>3.2%</b>	<b>\$ 20,055,033</b>	<b>\$ 621,718</b>	<b>3.2%</b>	
<b>Meeting Expenses</b>								
Meetings & Conference Calls	\$ 521,824	\$ 527,042	\$ 5,218	1.0%	\$ 532,313	\$ 5,270	1.0%	
Travel	805,148	813,199	8,051	1.0%	821,331	8,132	1.0%	
<b>Total Meeting Expenses</b>	<b>\$ 1,326,972</b>	<b>\$ 1,340,242</b>	<b>\$ 13,270</b>	<b>1.0%</b>	<b>\$ 1,353,644</b>	<b>\$ 13,402</b>	<b>1.0%</b>	
<b>Operating Expenses, excluding Depreciation</b>								
Consultants & Contracts	\$ 2,369,580	1,919,580	(450,000)	(19.0%)	1,938,776	19,196	1.0%	
Office Rent	789,276	794,276	5,000	0.6%	799,276	5,000	0.6%	
Office Costs	711,549	718,664	7,115	1.0%	725,851	7,187	1.0%	
Professional Services	166,140	466,140	300,000	180.6%	470,801	4,661	1.0%	
Miscellaneous	-	-	-		-	-		
<b>Total Operating Expenses</b>	<b>\$ 4,036,545</b>	<b>\$ 3,898,660</b>	<b>\$ (137,885)</b>	<b>(3.4%)</b>	<b>\$ 3,934,704</b>	<b>\$ 36,044</b>	<b>0.9%</b>	
<b>Total Direct Expenses</b>	<b>\$ 24,195,013</b>	<b>\$ 24,672,218</b>	<b>\$ 477,205</b>	<b>2.0%</b>	<b>\$ 25,343,382</b>	<b>\$ 671,164</b>	<b>2.7%</b>	
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>		
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>		
<b>Total Expenses (B)</b>	<b>\$ 24,195,013</b>	<b>\$ 24,672,218</b>	<b>\$ 477,205</b>	<b>2.0%</b>	<b>\$ 25,343,382</b>	<b>\$ 671,164</b>	<b>2.7%</b>	
<b>Change in Assets</b>	<b>\$ 389,110</b>	<b>\$ 1,530,000</b>	<b>\$ 1,140,890</b>	<b>293.2%</b>	<b>\$ 330,000</b>	<b>\$ (1,200,000)</b>	<b>(78.4%)</b>	
<b>Incr(Dec) in Fixed Assets (C)</b>	<b>\$ 330,000</b>	<b>\$ 330,000</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ 330,000</b>	<b>\$ -</b>	<b>0.0%</b>	
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 24,525,013</b>	<b>\$ 25,002,218</b>	<b>\$ 477,205</b>	<b>1.9%</b>	<b>\$ 25,673,382</b>	<b>\$ 671,164</b>	<b>2.7%</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 59,110</b>	<b>\$ 1,200,000</b>	<b>\$ 1,140,890</b>	<b>(100.0%)</b>	<b>\$ -</b>	<b>\$ (1,200,000)</b>	<b>(100.0%)</b>	
FTEs	98.0	98.0	-	0.0%	98.0	-	0.0%	

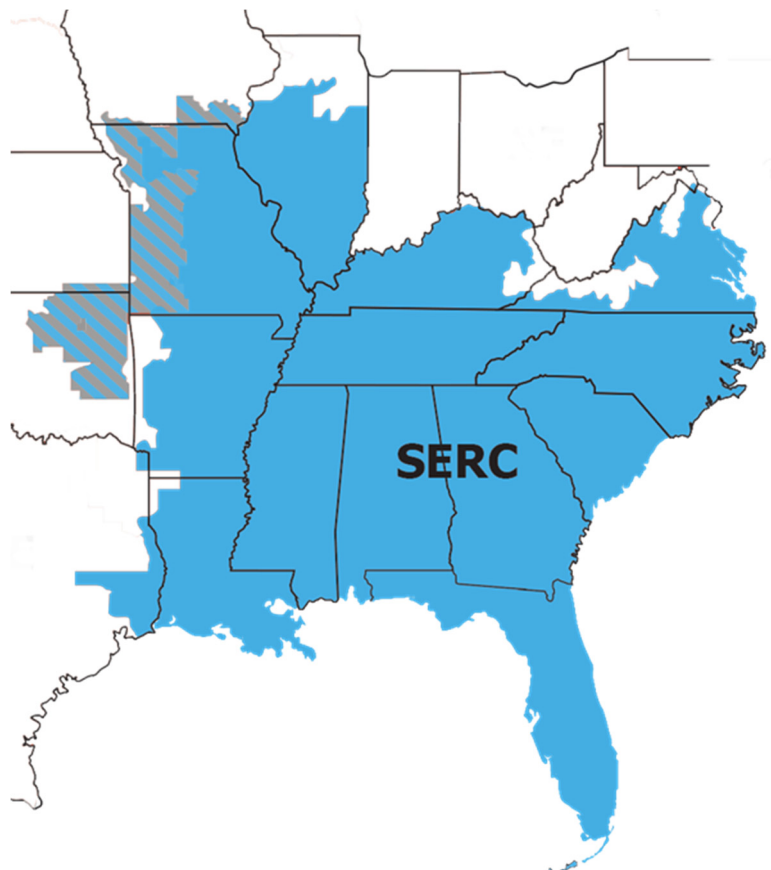
Table B-13. Budget 2020 Compared with 2020-2021 Projections

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## Section C – Non-Statutory Activities

### 2018 Business Plan and Budget

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## **Section C – Non-Statutory Activities**

### **2020 Non-Statutory Business Plan and Budget**

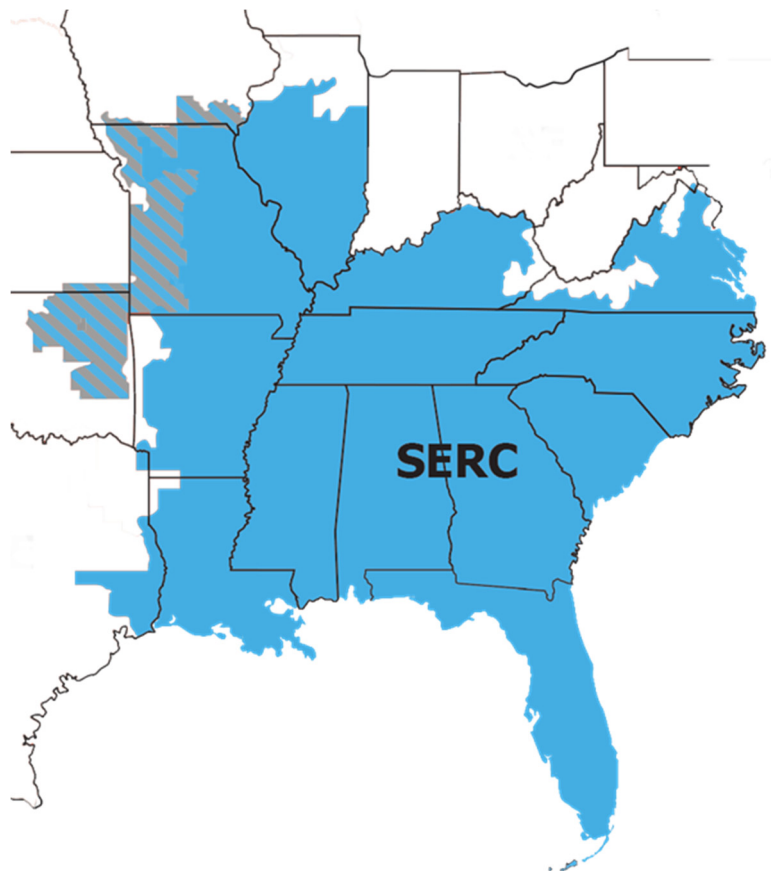
SERC does not provide any non-statutory functions at this time, although SERC may in the future consider providing non-statutory functions from time to time as appropriate and as permitted by its Board and applicable statutes and regulations.

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# Section D – Additional Consolidated Financial Statements

## 2020 Business Plan and Budget

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## Section D – Additional Consolidated Financial Statements

### 2020 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 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
<b>Revenue</b>										
<b>Statutory Funding</b>										
SERC Assessments	\$ 22,459,123	\$ 22,459,123	\$ -	\$ 22,459,123	\$ 338,061	\$ 17,096,873	\$ 2,240,194	\$ 2,131,119	\$ 652,876	\$ -
Penalty Sanctions	1,900,000	1,900,000	-	1,900,000	29,457	1,458,140	176,744	176,744	58,915	-
<b>Total Statutory Funding</b>	<b>\$ 24,359,123</b>	<b>\$ 24,359,123</b>	<b>\$ -</b>	<b>\$ 24,359,123</b>	<b>\$ 367,518</b>	<b>\$ 18,555,013</b>	<b>\$ 2,416,938</b>	<b>\$ 2,307,863</b>	<b>\$ 711,791</b>	<b>\$ -</b>
<b>Non-statutory Funding</b>										
Workshops & Miscellaneous	\$ 165,000	\$ 165,000	\$ -	\$ 165,000	\$ 372	\$ 29,418	\$ 2,233	\$ 132,233	\$ 744	\$ -
Interest	60,000	60,000	-	60,000	930	46,048	5,581	5,581	1,860	-
<b>Total Revenue (A)</b>	<b>\$ 24,584,123</b>	<b>\$ 24,584,123</b>	<b>\$ -</b>	<b>\$ 24,584,123</b>	<b>\$ 368,820</b>	<b>\$ 18,630,479</b>	<b>\$ 2,424,752</b>	<b>\$ 2,445,677</b>	<b>\$ 714,395</b>	<b>\$ -</b>
<b>Expenses</b>										
<b>Personnel Expenses</b>										
Salaries	\$ 14,135,381	\$ 14,135,381	\$ -	\$ 14,135,381	\$ 140,742	\$ 7,213,371	\$ 869,968	\$ 805,778	\$ 258,353	\$ 4,847,169
Payroll Taxes	1,028,204	1,028,204	-	1,028,204	10,274	526,576	63,508	58,822	18,860	350,164
Benefits	1,843,729	1,843,729	-	1,843,729	17,341	836,603	102,048	103,247	36,683	747,807
Retirement Costs	1,824,182	1,824,182	-	1,824,182	18,121	928,548	111,960	103,756	33,240	628,557
<b>Total Personnel Expenses</b>	<b>\$ 18,831,496</b>	<b>\$ 18,831,496</b>	<b>\$ -</b>	<b>\$ 18,831,496</b>	<b>\$ 186,478</b>	<b>\$ 9,505,098</b>	<b>\$ 1,147,484</b>	<b>\$ 1,071,603</b>	<b>\$ 347,136</b>	<b>\$ 6,573,697</b>
<b>Meeting Expenses</b>										
Meetings & Conference Calls	\$ 521,824	\$ 521,824	\$ -	\$ 521,824	\$ 1,110	\$ 35,825	\$ 56,125	\$ 137,094	\$ 320	\$ 291,350
Travel	805,148	805,148	-	805,148	9,540	438,270	63,880	68,675	22,810	201,973
<b>Total Meeting Expenses</b>	<b>\$ 1,326,972</b>	<b>\$ 1,326,972</b>	<b>\$ -</b>	<b>\$ 1,326,972</b>	<b>\$ 10,650</b>	<b>\$ 474,095</b>	<b>\$ 120,005</b>	<b>\$ 205,769</b>	<b>\$ 23,130</b>	<b>\$ 493,323</b>
<b>Operating Expenses, excluding Depreciation</b>										
Consultants & Contracts	\$ 2,369,580	\$ 2,369,580	\$ -	\$ 2,369,580	\$ -	\$ 126,000	\$ 110,000	\$ 137,000	\$ -	\$ 1,996,580
Office Rent	789,276	789,276	-	789,276	-	-	-	-	-	789,276
Office Costs	711,549	711,549	-	711,549	200	35,525	17,800	1,792	1,200	655,032
Professional Services	166,140	166,140	-	166,140	-	-	-	-	-	166,140
Miscellaneous	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 4,036,545</b>	<b>\$ 4,036,545</b>	<b>\$ -</b>	<b>\$ 4,036,545</b>	<b>\$ 200</b>	<b>\$ 161,525</b>	<b>\$ 127,800</b>	<b>\$ 138,792</b>	<b>\$ 1,200</b>	<b>\$ 3,607,028</b>
<b>Total Direct Expenses</b>	<b>\$ 24,195,013</b>	<b>\$ 24,195,013</b>	<b>\$ -</b>	<b>\$ 24,195,013</b>	<b>\$ 197,328</b>	<b>\$ 10,140,718</b>	<b>\$ 1,395,289</b>	<b>\$ 1,416,164</b>	<b>\$ 371,466</b>	<b>\$ 10,674,048</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ 165,489</b>	<b>\$ 8,191,711</b>	<b>\$ 992,935</b>	<b>\$ 992,935</b>	<b>\$ 330,978</b>	<b>\$ (10,674,048)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 24,195,013</b>	<b>\$ 24,195,013</b>	<b>\$ -</b>	<b>\$ 24,195,013</b>	<b>\$ 362,817</b>	<b>\$ 18,332,429</b>	<b>\$ 2,388,224</b>	<b>\$ 2,409,099</b>	<b>\$ 702,444</b>	<b>\$ -</b>
<b>Change in Assets</b>	<b>\$ 389,110</b>	<b>\$ 389,110</b>	<b>\$ -</b>	<b>\$ 389,110</b>	<b>\$ 6,003</b>	<b>\$ 298,050</b>	<b>\$ 36,528</b>	<b>\$ 36,578</b>	<b>\$ 11,951</b>	<b>\$ -</b>
<b>Depreciation</b>										
Computer & Software CapEx	\$ 330,000	\$ 330,000	\$ -	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 330,000
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	5,116	253,255	30,698	30,698	10,233	(330,000)
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ 330,000</b>	<b>\$ 330,000</b>	<b>\$ -</b>	<b>\$ 330,000</b>	<b>\$ 5,116</b>	<b>\$ 253,255</b>	<b>\$ 30,698</b>	<b>\$ 30,698</b>	<b>\$ 10,233</b>	<b>\$ -</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 24,525,013</b>	<b>\$ 24,525,013</b>	<b>\$ -</b>	<b>\$ 24,525,013</b>	<b>\$ 367,933</b>	<b>\$ 18,585,684</b>	<b>\$ 2,418,922</b>	<b>\$ 2,439,797</b>	<b>\$ 712,677</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 59,110</b>	<b>\$ 59,110</b>	<b>\$ -</b>	<b>\$ 59,110</b>	<b>\$ 887</b>	<b>\$ 44,795</b>	<b>\$ 5,830</b>	<b>\$ 5,880</b>	<b>\$ 1,718</b>	<b>\$ -</b>
<b>FTEs</b>	<b>98.0</b>	<b>98.0</b>	<b>-</b>	<b>98.0</b>	<b>1.0</b>	<b>49.5</b>	<b>6.0</b>	<b>6.0</b>	<b>2.0</b>	<b>33.5</b>

Table D-1. Consolidated Statements of Activities by Program, Statutory and Non-Statutory



## Statement of Financial Position

The following table provides SERC Statement of Financial Position as of these dates:

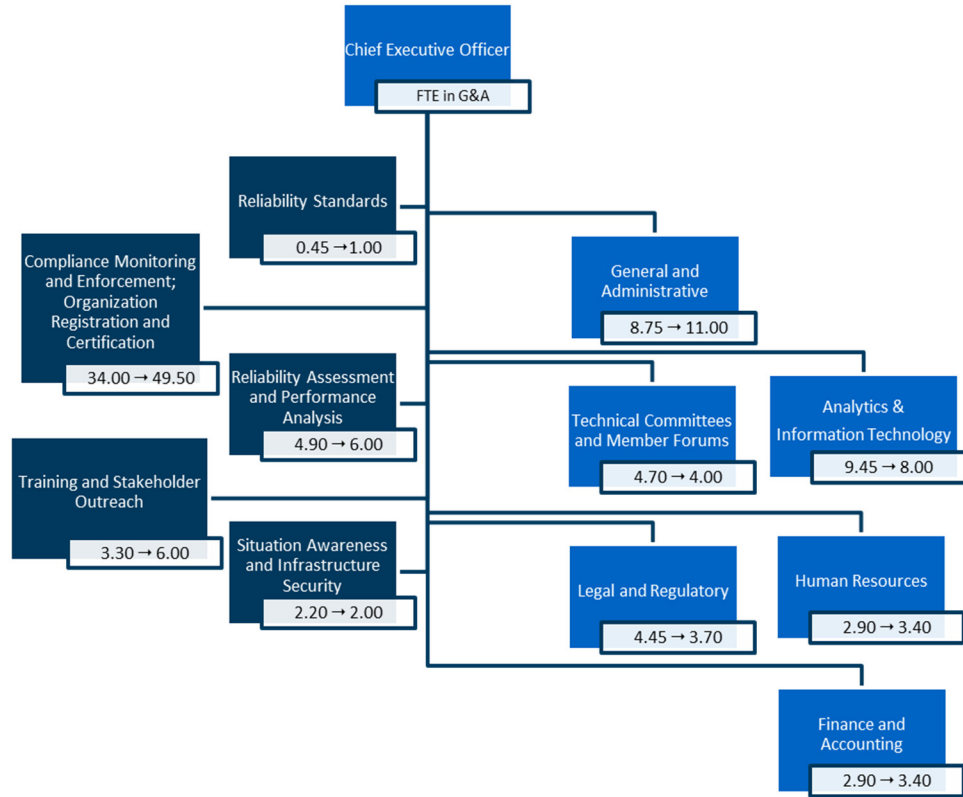
- December 31, 2018, per audit
- December 31, 2019, projected
- December 31, 2020, as budgeted

<b>Statement of Financial Position</b>			
<b>2018 Audited, 2019 Projection, and 2020 Budget</b>			
<b>STATUTORY and NON-STATUTORY</b>			
	<b>(Per Audit)</b>	<b>Projected</b>	<b>Budget</b>
	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>
<b>ASSETS</b>			
Cash and cash equivalents	\$ 7,392,961	\$ 4,000,345	\$ 5,184,455
Investments	316,185	3,316,185	3,375,295
Accounts receivable, net	298	-	-
Prepaid expenses and other assets	127,347	140,000	140,000
Property and equipment, net	817,741	1,997,741	1,777,741
Total Assets	<b>\$ 8,654,532</b>	<b>\$ 9,454,271</b>	<b>\$ 10,477,491</b>
<b>LIABILITIES AND NET ASSETS</b>			
Liabilities			
Accounts payable	\$ 38,624	\$ 40,000	\$ 40,000
Accrued expenses	3,082,900	3,623,915	3,623,915
Deferred revenue	997,016	1,900,000	2,500,000
Other liabilities	772,256	750,000	725,000
Total Liabilities	<b>\$ 4,890,796</b>	<b>\$ 6,313,915</b>	<b>\$ 6,888,915</b>
Unrestricted net assets	3,763,736	3,140,356	3,588,576
Total Liabilities and Net Assets	<b>\$ 8,654,532</b>	<b>\$ 9,454,271</b>	<b>\$ 10,477,491</b>

**Table D-2. Statement of Financial Position, Three-Year Comparison**

## Appendix A Organization Chart

The SERC Organization chart shown here compares 2019 and 2020 SERC personnel counts.



2019 FTE: 78.00

2020 FTE: 98.00

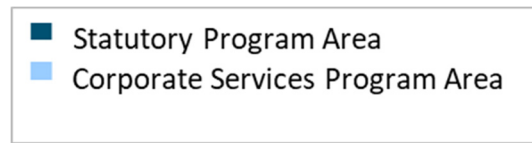


Figure 2. SERC Organization Chart

## Appendix B Acronyms

This section lists and defines acronyms used in this document.

Acronym	Definition
BCC	Board Compliance Committee
BES	Bulk Electric System
BPS	Bulk Power System
CA	Compliance Assessment
CIP	Critical Infrastructure Protection
CIPSA	CIPSA is a data collection tool.
CITS	Compliance Issues Tracking System
CMEP	Compliance Monitoring and Enforcement Program
DADS	Demand Response Availability Data System
EA	Events Analysis
EIA	Energy Information Administration
EMG	Executive Management Group
ERAG	Eastern Interconnection Reliability Assessment Group
ERO	Electric Reliability Organization
ES-ISAC	NERC's Electric Sector – Information Sharing and Analysis Center
FAC	Finance and Audit Committee
FERC	Federal Energy Regulatory Commission
FFT	Find, Fix, and Track
FRCC	Florida Reliability Coordinating Council
FTE	Full-Time Equivalent
GADS	Generating Availability Data System
HRCC	Human Resources and Compensation Committee
HRIS	Human Resources Information System
IT	Information Technology
MIDAS	Misoperations Information Data Analysis System
NEL	Net Energy for Load
NERC	North American Electric Reliability Corporation
NOP	Full Notice of Penalty
NPCC	Northeast Power Coordinating Council
PEI	Protected Entity Information
PMO	Project Management Office
RAPA	Reliability Assessments and Performance Analysis
RAS	NERC Reliability Assessment Subcommittee
RSAW	Reliability Standards Audit Worksheet
SA	Situation Awareness
SAEA	Situation Awareness and Events Analysis
SAN	Storage Area Network
SERC	SERC Reliability Corporation
SNOP	Spreadsheet Notice of Penalty
SPP	Southwest Power Pool
TADS	NERC Transmission Availability Data System
TFE	Technical Feasibility Exception

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**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 7**

**TEXAS RELIABILITY ENTITY**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



## **2020 Business Plan and Budget**

**Texas Reliability Entity, Inc.**

**Approved by Texas RE Board of Directors**

**Date: May 15, 2019**

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## Introduction

	<b>TOTAL RESOURCES</b> (in whole dollars)			
	<b>2020 Budget</b>	<b>U.S.</b>	<b>Canada</b>	<b>Mexico</b>
Statutory FTEs	60.0			
Non-statutory FTEs	4.0			
<b>Total FTEs</b>	64.0			
Statutory Expenses	\$ 13,781,126			
Non-Statutory Expenses	\$ 1,191,965			
<b>Total Expenses</b>	\$ 14,973,091			
Statutory Inc(Dec) in Fixed Assets	\$ 50,000			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
<b>Total Inc(Dec) in Fixed Assets</b>	\$ 50,000			
Statutory Working Capital Requirement	\$ 263,002			
Non-Statutory Working Capital Requirement				
<b>Total Working Capital Requirement</b>	\$ 263,002			
Total Statutory Funding Requirement	\$ 14,094,128			
Total Non-Statutory Funding Requirement	\$ 1,191,965			
<b>Total Funding Requirement</b>	\$ 15,286,093			
<b>Statutory Funding Assessments</b>	\$ 13,344,128			
<b>Non-Statutory Fees</b>	\$ 1,191,965			
NEL	378,081,531	378,081,531		
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, 2016. Texas RE ensures the reliability of the ERCOT region bulk-power system (BPS).

Texas RE also performs non-statutory activities as the Reliability Monitor for the ERCOT region on behalf of the Public Utility Commission of Texas (PUCT). As the Reliability Monitor, Texas RE monitors and reports to the PUCT regarding market participants' compliance with reliability-related ERCOT Protocols, Operating Guides, and Texas rules (ERCOT Regional Rules).

The ERCOT region is the geographic area located within the state of Texas that operates under the jurisdiction of the 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**

### **Members**

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, and assistance in the certification of operating 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.

### **2020 Overview of Cost Impacts**

In developing the Texas RE 2020 Business Plan and Budget, Texas RE reflects the collaborative development of the Electric Reliability Organization (ERO) Enterprise Long-term Strategy and the

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ERO Enterprise Operating Plan.<sup>1</sup> 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 2020 budgeted statutory expenses (\$13,831,126) increased by 5.8% from the 2019 budgeted statutory expenses (\$13,069,599).

The 2020 statutory assessment (\$13,344,128) represents an increase of 0.7% from the 2019 assessment (\$13,248,000).

Significant statutory expense changes (including capital expenditures) include:

- Total Personnel expenses are increasing by 4.3%. Salaries expense is increasing 3.3%, which includes an allowance for salary increases and promotions. Payroll taxes are increasing 4.2%, which includes an increase in State Unemployment Insurance Tax. Total Benefits expense is increasing 8.5%. Health-plan expense is projected to increase 14% in 2020. Employee Benefits include education reimbursement, relocation expenses, and training and professional development. The budget for these costs is remaining consistent with 2019. Including these expenses in Employee Benefits is consistent with the NERC budget guidelines. Retirement costs are increasing 5.3%. Forfeiture funds are used when available to fund the employer portion of retirement plan cost, keeping the expense lower.
- Total Meeting and Travel expenses are increasing 1.2% to include Workshop Expense for a proposed Reliability Summit in the Training and Education Program.
- Total Operating expenses are increasing by 12.6%. The Consultants and Contracts expense includes IT Managed Services and is increasing 22.3%, primarily due to adding a unified communication system including phone, instant messaging, and online meeting system. The Consultants and Contracts expense also includes a search fee to replace an Independent Director who will be term-limited at the end of 2020. Rent cost is increasing 27.8%. The current lease for Texas RE office space ends September 30, 2020. The lease has been extended, causing an escalation in rent and utilities. Office cost is decreasing 3.6%. Increased costs for the external auditor firm and potential increases to the Independent Director's fees are increasing Professional Services 6.3%.

All statutory activity in the 2020 Business Plan and Budget aligns with the ERO Enterprise Long-term Strategy and the ERO Enterprise Operating Plan.

Beginning with the 2020 Business Plan and Budget (BP&B), NERC and the Regions are implementing format revisions to the Statement of Activities report. These revisions are intended to ensure that NERC and the Regions report information consistently from new accounting standards (e.g., leasing standards and right-of-use assets), provide enhanced transparency of financing activity (e.g., debt borrowing, lease-financed asset purchases, and principal payments), and streamline sections of the report related to non-cash expenses (primarily depreciation and

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<sup>1</sup> These documents are available on the NERC website at <https://www.nerc.com/AboutNERC/Pages/Strategic-Documents.aspx>.

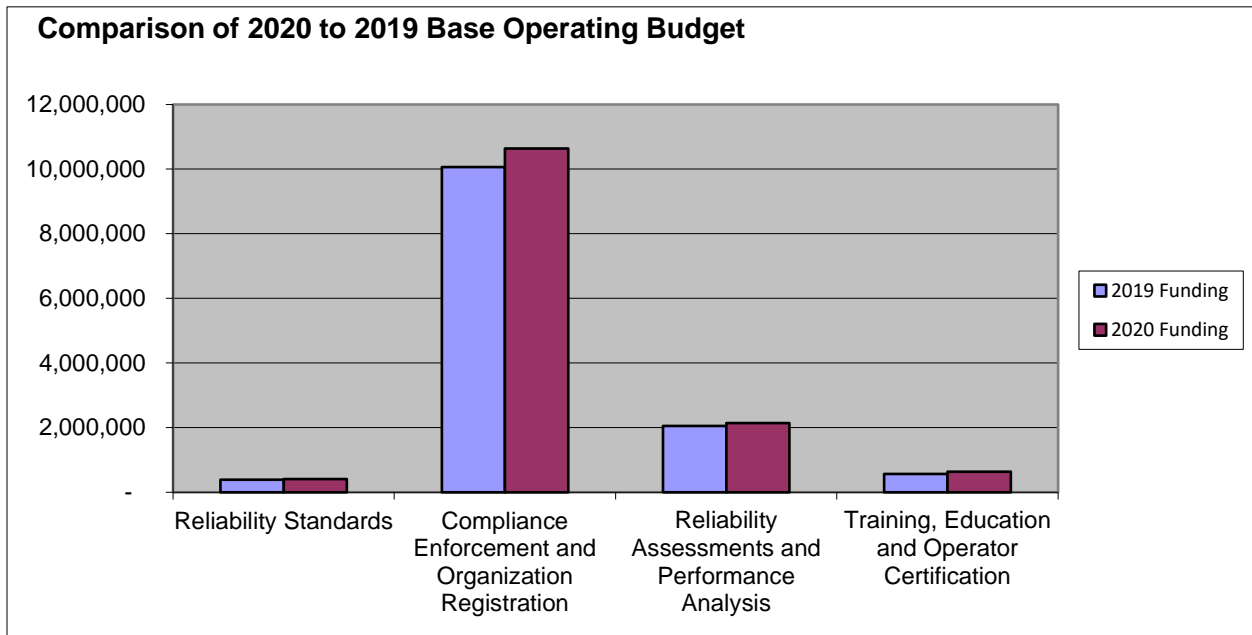
amortization). The goal of the new format is to improve the effectiveness of the report to the reader and to provide a total budget amount that more closely reflects the amount of annual revenues required from assessments and other funding sources. One of the format revisions is that the Statements of Activities will no longer show an expense item for depreciation and an equal and offsetting credit for depreciation in fixed asset activity (which resulted in depreciation having no impact on funding requirements or actual results).

In the 2020 BP&B document, the 2019 budget has been restated to reflect the new statement of activities reporting format when comparing 2020 to 2019 to show the year-over-year budget changes on a comparable basis. As such, in the total entity and departmental Statements of Activities, depreciation expense has been removed from the 2019 operating expense budgets and projections, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections.

## Summary by Program

The following table summarizes the Texas RE budget by program area.

Base Operating Budget	Budget	Projection	Budget	Variance	
	2019	2019	2020	2020 Budget v 2019 Budget	Variance %
Reliability Standards	\$ 386,410	\$ 386,410	\$ 407,002	\$ 20,592	5.3%
Compliance Enforcement and Organization Registration	10,068,946	10,068,946	10,637,638	568,692	5.6%
Reliability Assessments and Performance Analysis	2,051,498	2,051,498	2,145,050	93,552	4.6%
Training, Education and Operator Certification	562,745	562,745	641,437	78,691	14.0%
Total Situation Awareness and Infrastructure Security	-	-	-	-	-
<b>Total by Program</b>	<b>\$ 13,069,599</b>	<b>\$13,069,599</b>	<b>\$ 13,831,126</b>	<b>\$ 761,528</b>	<b>5.8%</b>



## FTEs by Program Area

### Personnel Analysis

The following table displays total full-time equivalents (FTEs) by program area.

Total FTEs by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>STATUTORY</b>						
<b>Operational Programs</b>						
Reliability Standards	1.25	1.25	1.25	-	1.25	-
Compliance and Organization Registration and Certificat	35.75	35.75	35.75	-	35.75	-
Training and Education	2.25	2.25	2.25	-	2.25	-
Reliability Assessment and Performance Analysis	6.00	6.00	6.00	-	6.00	-
<b>Total FTEs Operational Programs</b>	<b>45.25</b>	<b>45.25</b>	<b>45.25</b>	<b>-</b>	<b>45.25</b>	<b>-</b>
<b>Administrative Programs</b>						
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	-
<b>Total FTEs Administrative Programs</b>	<b>14.75</b>	<b>14.75</b>	<b>14.75</b>	<b>-</b>	<b>14.75</b>	<b>-</b>
<b>Total FTEs</b>	<b>60.00</b>	<b>60.00</b>	<b>60.00</b>	<b>-</b>	<b>60.00</b>	<b>-</b>

A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

For an explanation of the variances, refer to the Resource Requirements section in each program area in Section A.

## 2019 Budget and Projection and 2020 Budget Comparisons

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
STATUTORY					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2019 Budget v 2020 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 13,248,000	\$ 13,248,000	\$ -	\$ 13,344,128	\$ 96,128
Penalty Sanctions	114,449	114,449	-	710,000	595,551
<b>Total NERC Funding</b>	<b>\$ 13,362,449</b>	<b>\$ 13,362,449</b>	<b>\$ -</b>	<b>\$ 14,054,128</b>	<b>\$ 691,679</b>
Interest	15,000	15,000	-	40,000	25,000
<b>Total Funding (A)</b>	<b>\$ 13,377,449</b>	<b>\$ 13,377,449</b>	<b>\$ -</b>	<b>\$ 14,094,128</b>	<b>\$ 716,679</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 7,394,175	\$ 7,394,175	\$ -	7,641,280	\$ 247,105
Payroll Taxes	506,088	506,088	-	527,534	21,445
Benefits	1,383,053	1,383,053	-	1,501,005	117,953
Retirement Costs	1,019,478	1,019,478	-	1,073,802	54,324
<b>Total Personnel Expenses</b>	<b>\$ 10,302,794</b>	<b>\$ 10,302,794</b>	<b>\$ -</b>	<b>\$ 10,743,621</b>	<b>\$ 440,827</b>
<b>Meeting &amp; Travel Expenses</b>					
Meetings	\$ 19,800	\$ 19,800	\$ -	58,500	\$ 38,700
Travel	349,770	349,770	-	318,205	(31,565)
Conference Calls	20,000	20,000	-	17,640	(2,360)
<b>Total Meeting &amp; Travel Expenses</b>	<b>\$ 389,570</b>	<b>\$ 389,570</b>	<b>\$ -</b>	<b>\$ 394,345</b>	<b>\$ 4,775</b>
<b>Operating Expenses, Excluding Depreciation</b>					
Consultants & Contracts	\$ 400,250	\$ 400,250	\$ -	489,704	\$ 89,454
Office Rent	707,214	707,214	-	903,786	196,572
Office Costs	686,070	686,070	-	661,070	(25,000)
Professional Services	553,700	553,700	-	588,600	34,900
<b>Total Operating Expenses</b>	<b>\$ 2,347,234</b>	<b>\$ 2,347,234</b>	<b>\$ -</b>	<b>\$ 2,643,160</b>	<b>\$ 295,926</b>
<b>Total Direct Expenses</b>	<b>\$ 13,039,598</b>	<b>\$ 13,039,598</b>	<b>\$ -</b>	<b>\$ 13,781,126</b>	<b>\$ 741,528</b>
Indirect Expenses	\$ (0)	\$ (0)	\$ -	\$ -	\$ 0
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Expenses (B)</b>	<b>\$ 13,039,598</b>	<b>\$ 13,039,598</b>	<b>\$ -</b>	<b>\$ 13,781,126</b>	<b>\$ 741,528</b>
<b>Change in Net Assets (A - B)</b>	<b>\$ 337,851</b>	<b>\$ 337,851</b>	<b>\$ -</b>	<b>\$ 313,002</b>	<b>\$ (24,849)</b>
<b>Fixed Assets, excluding Right of Use Assets ( C )</b>	<b>30,000</b>	<b>30,000</b>	<b>-</b>	<b>50,000</b>	<b>20,000</b>
<b>TOTAL BUDGET (B + C)</b>	<b>13,069,599</b>	<b>\$ 13,069,599</b>	<b>\$ -</b>	<b>\$ 13,831,126</b>	<b>\$ 761,528</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 307,851</b>	<b>\$ 307,851</b>	<b>\$ -</b>	<b>\$ 263,002</b>	<b>\$ (44,849)</b>
<b>FTEs</b>	60.00	60.00		60.00	

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## Section A – Statutory Programs

### 2020 Business Plan and Budget

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## Section A — 2020 Business Plan – Statutory Programs

### Reliability Standards Program

<b>Reliability Standards Program (in whole dollars)</b>			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	1.25	1.25	-
Direct Expenses	\$ 245,671	\$ 250,580	\$ 4,909
Indirect Expenses	\$ 142,791	\$ 155,040	\$ 12,249
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (2,052)	\$ 1,381	\$ 3,433
Total Funding Requirement	\$ 386,410	\$ 407,002	\$ 20,592

### 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 appeals 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.

### **2020 Key Assumptions**

- Continent-wide NERC Reliability Standards projects will consist primarily of conducting enhanced periodic reviews on existing standards to improve the content and respond 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. In addition, the Standards Efficiency Review will evaluate NERC Reliability Standards using a risk-based approach to identify potential efficiencies through retirement or modification of Reliability Standard Requirements. This activity 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.
- During the enhanced periodic review of NERC Reliability Standards, any associated Regional Standards will be reviewed for potential incorporation as variances or as improvements to the continent-wide requirements. Regional and NERC Reliability Standards development processes may require modification to efficiently accomplish this task. Each Regional Entity will work with NERC and possibly other Regional Entities on projects where there is a regional standard/variance. Regional Standards development activity will be driven by requests the Regional Entity may receive or reliability issues the Regional Entity may identify. Regional Standards development activity is expected to remain low.
- 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 be asked to participate in teams to help develop application business requirements and test business functionality for ERO Enterprise applications projects.

## 2020 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 2019.

### Consultants and Contracts

No consulting support and contracts are budgeted for 2020, which is consistent with the 2019 budget.

Section A — 2020 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 2020. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>RELIABILITY STANDARDS</b>					
	<b>2019</b>	<b>2019</b>	<b>Variance</b>	<b>2020</b>	<b>Variance</b>
<b>Funding</b>	<b>Budget</b>	<b>Projection</b>	<b>v 2019 Budget</b>	<b>Budget</b>	<b>v 2020 Budget</b>
			<b>Over(Under)</b>		<b>Over(Under)</b>
<b>ERO Funding</b>					
NERC Assessments	\$ 365,967	\$ 365,967	\$ -	368,622	\$ 2,655
Penalty Sanctions	3,162	3,162	-	19,613	16,452
<b>Total NERC Funding</b>	<b>\$ 369,128</b>	<b>\$ 369,128</b>	<b>\$ -</b>	<b>\$ 388,236</b>	<b>\$ 19,107</b>
Interest	414	414	-	1,105	691
<b>Total Funding</b>	<b>\$ 369,543</b>	<b>\$ 369,543</b>	<b>\$ -</b>	<b>\$ 389,341</b>	<b>\$ 19,798</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 156,651	\$ 156,651	\$ -	\$ 163,534	\$ 6,883
Payroll Taxes	11,343	11,343	-	11,883	540
Benefits	37,794	37,794	-	40,608	2,814
Retirement Costs	20,583	20,583	-	21,480	897
<b>Total Personnel Expenses</b>	<b>\$ 226,371</b>	<b>\$ 226,371</b>	<b>\$ -</b>	<b>\$ 237,505</b>	<b>\$ 11,134</b>
<b>Meeting &amp; Travel Expenses</b>					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	12,200	12,200	-	9,575	(2,625)
Conference Calls	7,000	7,000	-	3,500	(3,500)
<b>Total Meeting &amp; Travel Expenses</b>	<b>\$ 19,200</b>	<b>\$ 19,200</b>	<b>\$ -</b>	<b>\$ 13,075</b>	<b>\$ (6,125)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	100	100	-	-	(100)
Professional Services	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 100</b>	<b>\$ 100</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (100)</b>
<b>Total Direct Expenses</b>	<b>\$ 245,671</b>	<b>\$ 245,671</b>	<b>\$ -</b>	<b>\$ 250,580</b>	<b>\$ 4,909</b>
<b>Indirect Expenses</b>	<b>\$ 142,791</b>	<b>\$ 142,791</b>	<b>\$ -</b>	<b>\$ 155,040</b>	<b>\$ 12,249</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses</b>	<b>\$ 388,462</b>	<b>\$ 388,462</b>	<b>\$ -</b>	<b>\$ 405,621</b>	<b>\$ 17,159</b>
<b>Change in Assets</b>	<b>\$ (18,919)</b>	<b>\$ (18,919)</b>	<b>\$ -</b>	<b>\$ (16,280)</b>	<b>\$ 2,639</b>
<b>Fixed Assets, excluding Right of Use Assets ( C )</b>	<b>\$ (2,052)</b>	<b>\$ (2,052)</b>	<b>-</b>	<b>\$ 1,381</b>	<b>3,433</b>
<b>TOTAL BUDGET</b>	<b>\$ 386,410</b>	<b>\$ 386,410</b>	<b>\$ -</b>	<b>\$ 407,002</b>	<b>\$ 20,592</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ (16,868)</b>	<b>\$ (16,868)</b>	<b>\$ -</b>	<b>\$ (17,661)</b>	<b>\$ (794)</b>
FTEs	1.25	1.25	-	1.25	-

## Compliance Monitoring and Enforcement and Organization Registration and Certification Program

<b>Compliance Monitoring and Enforcement and Organization Registration and Certification Program</b>			
<b>(in whole dollars)</b>			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	35.75	35.75	-
Direct Expenses	\$ 6,043,802	\$ 6,163,982	\$ 120,181
Indirect Expenses	\$ 4,083,823	\$ 4,434,153	\$ 350,330
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (58,680)	\$ 39,503	\$ 98,183
<b>Total Funding Requirement</b>	<b>\$ 10,068,946</b>	<b>\$ 10,637,638</b>	<b>\$ 568,694</b>

### 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 new tool referred to as Align is being developed collaboratively with NERC, the Regional Entities, and registered entities. Risk-based CMEP is designed to improve BES reliability by refocusing efforts on serious and substantial reliability risks and on the internal controls that mitigate those risks. Align will support those improvements across the ERO.

Continued development and implementation of Align is expected to be a major activity for Texas RE and the registered entities in 2020. The effort will require Texas RE to appropriately allocate resources to provide continuous improvement in the processes necessary to implement Align for both compliance and enforcement. Based on the high level of coordination between NERC, Regional Entities, and registered entities that is necessary for an efficient and effective implementation, Align will shift workload levels. Additionally, reallocation of resources may be required to meet the training requirements for the compliance and enforcement staff associated with Align. Because resource demands are not fully known, consideration will be given to reallocating existing staff or using available reserves to provide the resource support, if Texas RE determines this to be necessary to support the successful execution of this major activity while

maintaining an adequate level of compliance monitoring and enforcement necessary to ensure reliable operations.

### **2020 Key Assumptions**

- The implementation of risk-based CMEP will continue to require the allocation of dedicated resources from both NERC and the Regional Entities for both compliance and enforcement. Regional Entities will require resources to update previously completed IRAs, new IRAs based on identified triggers, and focus on creating compliance oversight plans that include compliance monitoring tools, the frequency of compliance monitoring, and the standards that are to be monitored as well as the depth of testing of those standards.
- The Align project will unify many processes and systems across the ERO, promoting greater efficiencies in work and use of resources. Additional resources will be needed to incorporate the system being developed. Regional Entities will be asked to participate in teams to test business functionality for ERO Enterprise applications projects. These teams will primarily be business area subject matter experts, not IT staff. The success of Align will be dependent on Regional Entity participation. NERC has requested that when planning, Regional Entities should consider allocating resources at an adequate level of participation to support the success of this project.
- NERC and the Regional Entities will continue to evaluate business practices, implementation, and consistency within the risk-based CMEP.
- CIP compliance personnel will need to support implementation and evaluation of CIP Requirements for “low impact” entities and any updated CIP Reliability Standards.
- NERC will continue to lead the Reliability Standards training development, coordination, and facilitation for the CMEP staff and industry outreach. Texas RE will support these activities in collaboration with NERC, as needed, to ensure appropriate knowledge and guidance are developed, understood, and administered.
- NERC and the Regional Entities are continuing to support the training and education requirements and guidelines necessary to meet the criteria set forth by the ERO Enterprise Compliance Monitoring and Enforcement Manual and the Competency Guide.
- A potential increase in resources may be necessary to support compliance and enforcement activities related to CIP V5 Reliability Standards in 2020.
- Additional resource considerations should be given to managing the increased number of registered entities subject to the CIP Reliability Standards due to the addition of “low impact” requirements.
- Additional resource allocation may be necessary for increased Physical Security compliance monitoring activities for CIP-014 and the compliance monitoring activities related to the Supply Chain Risk Management Reliability Standard (CIP-013).

- ERO Enterprise CMEP staff, particularly staff with visibility into risks existing in the field, will provide feedback to the ERO Enterprise. This feedback may include information on risks seen in the field that are not addressed by a standard, as well as information on where a standard is too broad. ERO Enterprise CMEP staff will participate in the development of a solution, regardless of whether the risk is addressed through a new or modified Reliability Standard, or other means.
- ERO Enterprise CMEP staff will provide input for standards development teams on the risks seen in the field relating to a standard under development, as well as for how a Reliability Standard would be monitored.
- As the depth of focused analysis of reliability performance and events across NERC improves, any identification of possible gaps in standards and compliance monitoring could potentially influence this program area.
- The certification program will be assessed in 2019, which may result in modifications to the program in 2020.
- Planned oversight activities for 2020 will be aligned with the ERO Enterprise Operating Model and may affect 2020 resource allocation, but they should have little effect on overall NERC resource requirements. NERC understands that each Regional Entity will need to evaluate its individual resource needs and allocations.
- Regional Entities will be asked to participate in teams to help develop application business requirements and to test business functionality for ERO Enterprise applications projects.

## 2020 Goals and Key Deliverables

### COMPLIANCE MONITORING

- Develop and implement compliance oversight plans for registered entities focusing on relevant risks, including consideration of inherent risk assessments, entity performance history, and effectiveness of internal controls.
- Work collaboratively with NERC and other Regional Entities to provide clear and consistent guidance on the CMEP process, including coordinated oversight of Multi-Region Registered Entities.
- Undertake compliance monitoring activities in accordance with established risk-based approaches.
- Take action to address any findings, recommendations, enhancements, guidance, and inconsistencies identified in NERC's registration, compliance monitoring, and enforcement oversight reports.
- Participate in the development and implementation of Align. Participate in training related to enhancements to the risk-based monitoring approach.

### ENFORCEMENT

- Review, validate, and process or dismiss all possible violations in a timely fashion, to enhance visibility of violations and penalties.

- 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.
- Enhanced 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, identifying entities responsible for compliance.
- Ensure entities performing the functions of Reliability Coordinator, Balancing Authority, and Transmission Operator have the tools, processes, and training to meet applicable Reliability Standards requirements.

#### Resource Requirements

##### Personnel Expenses

The number of FTEs assigned to this Program is consistent with 2019.

##### Consultants and Contracts

There is a decrease of 6.7% in contracts and consulting services for this department due to lower costs associated with webCDMS.



Section A — 2020 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 2020. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>COMPLIANCE MONITORING, ENFORCEMENT and ORGANIZATION REGISTRATION and CERTIFICATION</b>					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection v 2019 Budget Over(Under)	Budget	2019 Budget v 2020 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 10,466,652	\$ 10,466,652	\$ -	\$ 10,542,599	\$ 75,947
Penalty Sanctions	90,421	90,421	-	560,939	470,518
<b>Total NERC Funding</b>	<b>\$ 10,557,073</b>	<b>\$ 10,557,073</b>	<b>\$ -</b>	<b>\$ 11,103,538</b>	<b>\$ 546,465</b>
Interest	11,851	11,851	-	31,602	19,751
<b>Total Funding</b>	<b>\$ 10,568,924</b>	<b>\$ 10,568,924</b>	<b>\$ -</b>	<b>\$ 11,135,140</b>	<b>\$ 566,216</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,062,640	\$ 4,062,640	\$ -	\$ 4,084,786	\$ 22,146
Payroll Taxes	305,272	305,272	-	313,103	7,831
Benefits	777,434	777,434	-	896,703	119,269
Retirement Costs	568,677	568,677	-	578,151	9,474
<b>Total Personnel Expenses</b>	<b>\$ 5,714,022</b>	<b>\$ 5,714,022</b>	<b>\$ -</b>	<b>\$ 5,872,743</b>	<b>\$ 158,721</b>
<b>Meeting &amp; Travel Expenses</b>					
Meetings	\$ 300	\$ 300	\$ -	\$ -	\$ (300)
Travel	141,450	141,450	-	114,625	(26,825)
Conference Calls	7,000	7,000	-	7,000	-
<b>Total Meeting&amp; Travel Expenses</b>	<b>\$ 148,750</b>	<b>\$ 148,750</b>	<b>\$ -</b>	<b>\$ 121,625</b>	<b>\$ (27,125)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 162,000	\$ 162,000	\$ -	\$ 151,204	\$ (10,796)
Office Rent	-	-	-	-	-
Office Costs	19,030	19,030	-	18,410	(620)
Professional Services	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 181,030</b>	<b>\$ 181,030</b>	<b>\$ -</b>	<b>\$ 169,614</b>	<b>\$ (11,416)</b>
<b>Total Direct Expenses</b>	<b>\$ 6,043,802</b>	<b>\$ 6,043,802</b>	<b>\$ -</b>	<b>\$ 6,163,982</b>	<b>\$ 120,180</b>
<b>Indirect Expenses</b>	<b>\$ 4,083,823</b>	<b>\$ 4,083,823</b>	<b>\$ -</b>	<b>\$ 4,434,153</b>	<b>\$ 350,330</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses</b>	<b>\$ 10,127,626</b>	<b>\$ 10,127,626</b>	<b>\$ -</b>	<b>\$ 10,598,135</b>	<b>\$ 470,510</b>
<b>Change in Net Assets</b>	<b>\$ 441,298</b>	<b>\$ 441,298</b>	<b>\$ -</b>	<b>\$ 537,005</b>	<b>\$ 95,706</b>
<b>Fixed Assets, excluding Right of Use Assets</b>	<b>\$ (58,680)</b>	<b>\$ (58,680)</b>	<b>\$ -</b>	<b>\$ 39,503</b>	<b>\$ 98,183</b>
<b>TOTAL BUDGET</b>	<b>\$ 10,068,946</b>	<b>\$ 10,068,946</b>	<b>\$ -</b>	<b>\$ 10,637,638</b>	<b>\$ 568,693</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ 499,978</b>	<b>\$ 499,978</b>	<b>\$ -</b>	<b>\$ 497,502</b>	<b>\$ (2,476)</b>
<b>FTEs</b>	<b>35.75</b>	<b>35.75</b>	<b>-</b>	<b>35.75</b>	<b>-</b>

Approved by the Texas RE Board of Directors May 15, 2019

## Reliability Assessment and Performance Analysis Program

<b>Reliability Assessments and Performance Analysis (in whole dollars)</b>			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	6.00	6.00	-
Direct Expenses	\$ 1,375,949	\$ 1,394,226	\$ 18,277
Indirect Expenses	\$ 685,397	\$ 744,193	\$ 58,797
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (9,848)	\$ 6,630	\$ 16,478
Total Funding Requirement	\$ 2,051,498	\$ 2,145,050	\$ 93,552

### 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 technology trends. 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 and Infrastructure Security. Situation Awareness covers the assessment of the current condition of and threats to the BPS and development and application of situation awareness tools for monitoring the BPS. Infrastructure Security resources participate in the on-going development of CIP Reliability Standards, improving regional coordination and cooperation for the CIP program, and aid the NERC-led efforts to develop industry alerts and guidance in support of the Electricity – Information Sharing and Analysis Center (E-ISAC). Most of the Texas RE Infrastructure Security effort is handled by CIP resources within the Compliance, Monitoring, Enforcement and Organizational Registration and Certification Program, while Situation Awareness is closely tied to initial event review, which is primarily performed as part of the Event Analysis Process, in the RAPA Program.

### 2020 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.
- Regional Entities will be asked to participate in teams to help develop application business requirements and test business functionality for ERO Enterprise applications projects.

### **2020 Goals and Key Deliverables**

- Provide independent reviews of reliability assessments for the ERCOT region and assist NERC in its overall development of the annual long-term reliability assessment, along with continuing support for winter and summer seasonal assessments and with enhanced use of probabilistic analysis.
- Contribute to an anticipated NERC short-term special reliability assessment in 2020 that focuses on specific risk concerns in a six-to-twenty-four month horizon, including scope development, data collection, analysis and review. The assessment may involve topics such as fuel supply risk, new technologies, energy storage, changes in resource mix, or delays in transmission development.
- Support NERC-wide modelling improvement efforts, particularly those related to dynamic loads, inverter-based resources, and generator model validation. As the Interconnection model designee associated with MOD-032 and MOD-033 Reliability Standards, Texas RE will continue to work with stakeholders to integrate fidelity and quality tests into Interconnection study-case development processes. Support NERC staff analysis of system frequency response and other characteristics using Interconnection study-cases.
- Contribute to Reliability Guidelines and Technical Reference documents developed through technical working groups under the NERC Planning and Operating Committees, including special reports on emerging issues as may be assigned to these groups to address high-priority risks.
- Provide regional data collection and analysis to meet NERC System Analysis initiatives or FERC Order directives. These may include continuing review of risks associated with geomagnetic disturbances, system strength, and reactive issues, protection system mis-operations, system frequency response, human performance, drought, environmental regulations, oscillation analysis, phasor measurement unit (PMU) application, distributed energy resources, and new technology integration.
- Oversee NERC Rules of Procedure Section 1600 collection and validation of reliability data for the ERCOT region, provide analysis and validation, respond to FERC inquiries and support stakeholders' data entry. In 2020, Texas RE will assist in development of application requirements and testing to support development of NERC's Enterprise Reporting data warehouse along with ERO-wide analytical programs. Systems include:
  - Transmission Availability Data System (TADS)
  - Generation Availability Data System (GADS)
  - GADSwind, a similar but separate system from GADS for wind generation, becoming mandatory for all wind facilities over 100 MVA in 2019

- Demand Response Availability Data System (DADS)
  - Protection System Mis-operations (MIDAS)
  - GADSSolar, currently in development
- 
- Participate in ERO development of an outcome-based approach to achieve measurable improvements in reliability, using the data above and NERC's grid performance metrics. Collect data and perform analysis as needed to evaluate the NERC 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 2020 with 2019.
  - Review NERC Reliability Standards and process developments. Evaluate against existing and proposed Regional criteria and processes for reliability concerns.
  - Continue to implement the NERC event analysis and cause-coding process within the ERCOT region, expecting a similar volume of events as 2019, estimated at 12 Category 1 (minor), and three Category 2 or 3 (moderate impact) events. No Category 4 or 5 events (significant impact) are anticipated but processes and procedures to address this possibility will be maintained. Conduct follow-up on recommendations and trends from past major events within ERCOT and other power systems.
  - Review approximately 80 lesser system events, such as remedial action scheme mis-operations, communications issues, and frequency disturbances, which do not meet the threshold for NERC events analysis, in order to monitor trends and system impacts in these areas.
  - Support the BES Definition exception process and other Registration activities, as needed by providing technical review of exception requests, evaluation of retail generator exports and distribution provider loads. Coordinate internally and with other Regions and NERC for consistent application. At this time, the number of such requests is uncertain but is expected to be limited to three or four issues handled by existing staff.
  - Promote the work of the NERC Reliability Issues Steering Committee (RISC) to identify the most significant system 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.
  - Texas RE staff will continue ongoing day-to-day monitoring for Situation Awareness, including system data, weather, technological developments, industry news, and media to understand trends that affect reliability both in the near and long-term horizon.
  - Use software applications and data from ERCOT ISO, NERC, and other sources for Regional Situation Awareness, and support use by other departments in Texas RE. Provide regional coordination to maintain the Situation Awareness for FERC, NERC and the Regional Entities (SAFNR) tool, along with internal real-time

visualization tools. Texas RE uses these tools to provide regular reporting to NERC along with information on current events in the ERCOT region.

- Continue joint activities with ERCOT ISO to host winter preparation workshops for generators and conduct site visits to promote best practices. There may be 30-40 generator sites included, with the number depending on results from 2019.
- Texas RE will continue to monitor and follow up on NERC Alerts and anticipates that the volume will be similar to 2019, or approximately four, with one alert expected to require response coordination and analysis.
- Texas RE staff will continue to support training initiatives in the Situation Awareness area that concern system resiliency and recovery. Planning with NERC and E-ISAC staff will continue for the fifth NERC GridEx Security exercise to be conducted in late 2020. Texas RE will 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 2019.

#### Consultants and Contracts

No consulting support and contracts are budgeted for 2020, which is consistent with the 2019 budget. No task assignments have been identified that require consulting or contractor support.

Section A — 2020 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 2020. Explanations of variances by expense category are included with the Supplemental Tables found in Section B.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>RELIABILITY ASSESSMENTS and PERFORMANCE ANALYSIS</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2019 Budget v 2020 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 1,756,641	\$ 1,756,641	\$ -	\$ 1,769,387	\$ 12,746
Penalty Sanctions	15,176	15,176	-	94,144	78,968
<b>Total NERC Funding</b>	<b>\$ 1,771,816</b>	<b>\$ 1,771,816</b>	<b>\$ -</b>	<b>\$ 1,863,531</b>	<b>\$ 91,714</b>
Interest	1,989	1,989	-	5,304	3,315
<b>Total Funding</b>	<b>\$ 1,773,805</b>	<b>\$ 1,773,805</b>	<b>\$ -</b>	<b>\$ 1,868,835</b>	<b>\$ 95,029</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 880,124	\$ 880,124	\$ -	\$ 903,185	\$ 23,061
Payroll Taxes	60,689	60,689	-	63,114	2,425
Benefits	163,033	163,033	-	154,128	(8,904)
Retirement Costs	126,663	126,663	-	130,959	4,296
<b>Total Personnel Expenses</b>	<b>\$ 1,230,509</b>	<b>\$ 1,230,509</b>	<b>\$ -</b>	<b>\$ 1,251,386</b>	<b>\$ 20,877</b>
<b>Meeting &amp; Travel Expenses</b>					
Meetings	\$ 1,000	\$ 1,000	\$ -	\$ -	\$ (1,000)
Travel	82,000	82,000	-	73,200	(8,800)
Conference Calls	-	-	-	-	-
<b>Total Meeting &amp; Travel Expenses</b>	<b>\$ 83,000</b>	<b>\$ 83,000</b>	<b>\$ -</b>	<b>\$ 73,200</b>	<b>\$ (9,800)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	62,440	62,440	-	69,640	7,200
Professional Services	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 62,440</b>	<b>\$ 62,440</b>	<b>\$ -</b>	<b>\$ 69,640</b>	<b>\$ 7,200</b>
<b>Total Direct Expenses</b>	<b>\$ 1,375,949</b>	<b>\$ 1,375,949</b>	<b>\$ -</b>	<b>\$ 1,394,226</b>	<b>\$ 18,277</b>
<b>Indirect Expenses</b>	<b>\$ 685,397</b>	<b>\$ 685,397</b>	<b>\$ -</b>	<b>\$ 744,193</b>	<b>\$ 58,797</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses</b>	<b>\$ 2,061,346</b>	<b>\$ 2,061,346</b>	<b>\$ -</b>	<b>\$ 2,138,420</b>	<b>\$ 77,074</b>
<b>Change in Net Assets</b>	<b>\$ (287,541)</b>	<b>\$ (287,541)</b>	<b>\$ -</b>	<b>\$ (269,585)</b>	<b>\$ 17,955</b>
<b>Fixed Assets</b>					
<b>Fixed Assets, excluding Right of Use Assets</b>	<b>\$ (9,848)</b>	<b>\$ (9,848)</b>	<b>\$ -</b>	<b>\$ 6,630</b>	<b>\$ 16,478</b>
<b>TOTAL BUDGET</b>	<b>\$ 2,051,498</b>	<b>\$ 2,051,498</b>	<b>\$ -</b>	<b>\$ 2,145,050</b>	<b>\$ 93,552</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ (277,692)</b>	<b>\$ (277,692)</b>	<b>\$ -</b>	<b>\$ (276,215)</b>	<b>\$ 1,477</b>
<b>FTEs</b>	<b>6.00</b>	<b>6.00</b>	<b>-</b>	<b>6.00</b>	<b>-</b>

**Training, Education, and Continuing Education Program**

<b>Training, Education and Operator Certification (in whole dollars)</b>			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	2.25	2.25	-
Direct Expenses	\$ 309,413	\$ 359,878	\$ 50,465
Indirect Expenses	\$ 257,024	\$ 279,073	\$ 22,049
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (3,693)	\$ 2,486	\$ 6,179
Total Funding Requirement	\$ 562,744	\$ 641,437	\$ 78,693

**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 analysis, 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. In addition, Texas RE provides assistance for the annual ERCOT Operator Training Seminar.

Texas RE will continue to coordinate Standards and Compliance workshops and other education and sharing meetings and webinars, including *Talk with Texas RE*, in 2020. Texas RE has also budgeted for a Reliability Summit to increase visibility of reliability issues in the ERCOT Interconnection. 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 industry meetings.

**2020 Key Assumptions**

- Additional resources may be required to support training related to ERO initiatives that are difficult to ascertain at this time.

**2020 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 standard revisions and interpretations, other reliability or compliance-related information, and Texas RE and NERC activities.
- Maintain the Texas RE website.
- Develop an Annual Report summarizing the prior year's accomplishments.
- 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.

### **Resource Requirements**

#### Personnel Expenses

The number of FTEs assigned to this Program are remaining constant in 2020.

#### Consultants and Contracts

Consulting support and contracts costs are reduced in 2020 from 2019.



Section A — 2020 Business Plan and Budget – Statutory Programs

**Training, Education, and Continuing Education Program**

The following table shows the funding sources and related expenses for the Training, Education, and Continuing Education Program for 2020. 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					
2019 Budget & Projection, and 2020 Budget					
TRAINING, EDUCATION and OPERATOR CERTIFICATION					
	2019	2019	Variance	2020	Variance
	Budget	Projection	2019 Projection	Budget	2019 Budget
			v 2019 Budget		v 2020 Budget
			Over(Under)		Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ 658,740	\$ 658,740	\$ -	\$ 663,520	\$ 4,780
Penalty Sanctions	5,691	5,691	\$ -	35,304	29,613
<b>Total NERC Funding</b>	<b>\$ 664,431</b>	<b>\$ 664,431</b>	<b>\$ -</b>	<b>\$ 698,824</b>	<b>\$ 34,393</b>
Interest	746	746	-	1,989	1,243
<b>Total Funding</b>	<b>\$ 665,177</b>	<b>\$ 665,177</b>	<b>\$ -</b>	<b>\$ 700,813</b>	<b>\$ 35,636</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 197,995	\$ 197,995	\$ -	\$ 210,025	\$ 12,030
Payroll Taxes	14,114	14,114	-	15,109	995
Benefits	48,701	48,701	-	51,955	3,254
Retirement Costs	26,424	26,424	-	30,459	4,035
<b>Total Personnel Expenses</b>	<b>\$ 287,234</b>	<b>\$ 287,234</b>	<b>\$ -</b>	<b>\$ 307,548</b>	<b>\$ 20,313</b>
<b>Meeting &amp; Travel Expenses</b>					
Meetings	\$ 4,500	\$ 4,500	\$ -	\$ 34,500	\$ 30,000
Travel	2,480	2,480	-	3,030	550
Conference Calls	6,000	6,000	-	3,300	(2,700)
<b>Total Meeting &amp; Travel Expenses</b>	<b>\$ 12,980</b>	<b>\$ 12,980</b>	<b>\$ -</b>	<b>\$ 40,830</b>	<b>\$ 27,850</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 3,000	\$ 3,000	\$ -	\$ 1,500	\$ (1,500)
Office Rent	-	-	-	-	-
Office Costs	6,200	6,200	-	7,000	800
Professional Services	-	-	-	3,000	3,000
<b>Total Operating Expenses</b>	<b>\$ 9,200</b>	<b>\$ 9,200</b>	<b>\$ -</b>	<b>\$ 11,500</b>	<b>\$ 2,300</b>
<b>Total Direct Expenses</b>	<b>\$ 309,414</b>	<b>\$ 309,414</b>	<b>\$ -</b>	<b>\$ 359,878</b>	<b>\$ 50,463</b>
<b>Indirect Expenses</b>	<b>\$ 257,024</b>	<b>\$ 257,024</b>	<b>\$ -</b>	<b>\$ 279,073</b>	<b>\$ 22,049</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses</b>	<b>\$ 566,438</b>	<b>\$ 566,438</b>	<b>\$ -</b>	<b>\$ 638,950</b>	<b>\$ 72,512</b>
<b>Change in Net Assets</b>	<b>\$ 98,739</b>	<b>\$ 98,739</b>	<b>\$ -</b>	<b>\$ 61,862</b>	<b>\$ (36,876)</b>
<b>Fixed Assets, excluding Right of Use Assets</b>	<b>\$ (3,693)</b>	<b>\$ (3,693)</b>	<b>\$ -</b>	<b>\$ 2,486</b>	<b>\$ 6,179</b>
<b>TOTAL BUDGET</b>	<b>\$ 562,745</b>	<b>\$ 562,745</b>	<b>\$ -</b>	<b>\$ 641,437</b>	<b>\$ 78,691</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ 102,432</b>	<b>\$ 102,432</b>	<b>\$ -</b>	<b>\$ 59,376</b>	<b>\$ (43,055)</b>
FTEs	2.25	2.25	-	2.25	-

Approved by the Texas RE Board of Directors May 15, 2019

## Administrative Services

Administrative Services						
	Direct Expenses & Fixed Assets			FTEs		
	2019 Budget	2020 Budget	Inc (Dec)	2019 Budget	2020 Budget	Inc (Dec)
General and Administrative	2,564,699	3,088,993	524,294	4.00	4.00	-
Legal and Regulatory	552,887	561,822	8,935	2.75	2.75	-
Information Technology	1,374,599	1,419,323	44,724	5.00	5.00	-
Human Resources	109,410	64,415	(44,995)	-	-	-
Finance and Accounting	493,166	527,908	34,742	3.00	3.00	-
Total Administrative Services	5,094,761	5,662,460	567,699	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 general and administrative 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 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.

### 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 2019. Administrative Services costs are allocated among Programs based on Program FTE count during the year.

Consulting support and contracts costs are increasing 150.0% in 2020. This increase is for a search firm to assist finding a replacement for an Independent Director who will be term-limited at the end of 2020.

### **Legal and Regulatory**

The Legal and Regulatory area 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 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.

#### **2020 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.

#### **2020 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.
- Review contracts and 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 2020.

Consulting support and contracts are decreasing 11.1% to reflect actual cost experience.

Legal Fees are decreasing by 25.0% to reflect actual cost experience.

### **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-

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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 2020 Business Plan and Budget assumes agreed-upon ERO Enterprise applications will be available and includes Texas RE costs for internal region-specific support needs.

### **2020 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.

### **2020 Goals and Key Deliverables**

- Provide IT and security support to all Texas RE's operations, including: IT and security budget; 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 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 2020.

IT-Managed Services, which is included in the consulting support and contracts category, is increasing 37.0% due to adding a unified communication system including phone, instant messaging, and online meeting system.

### **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.

### **2020 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.

### **2020 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 56.3% in 2020. The 2019 budget planned for three studies with different consultants. The 2020 budget plans for two studies: President and CEO compensation study and Executive compensation study using one consultant for both studies.

### **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.

#### **2020 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.

#### **2020 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, managers, 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 2020.

No consulting support and contracts are budgeted for 2020, which is consistent with the 2019 budget.

Section A — 2020 Business Plan and Budget – Statutory Programs

**Administrative Services**

The following table shows funding sources and related expenses for the Administrative Services section of the 2020 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.

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital</b>					
<b>2019 Budget &amp; Projection, and 2020 Budget</b>					
<b>ADMINISTRATIVE SERVICES</b>					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2019 Budget v 2020 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
<b>Total NERC Funding</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Total Funding</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 2,096,766	\$ 2,096,766	\$ -	\$ 2,279,750	\$ 182,984
Payroll Taxes	114,670	114,670	-	124,325	9,655
Benefits	356,091	356,091	-	357,610	1,519
Retirement Costs	277,131	277,131	-	312,753	35,622
<b>Total Personnel Expenses</b>	<u>\$ 2,844,657</u>	<u>\$ 2,844,657</u>	<u>\$ -</u>	<u>\$ 3,074,438</u>	<u>\$ 229,780</u>
<b>Meeting and Travel Expenses</b>					
Meetings	\$ 14,000	\$ 14,000	\$ -	\$ 24,000	\$ 10,000
Travel	111,640	111,640	-	117,775	6,135
Conference Calls	-	-	-	3,840	3,840
<b>Total Meeting &amp; Travel Expenses</b>	<u>\$ 125,640</u>	<u>\$ 125,640</u>	<u>\$ -</u>	<u>\$ 145,615</u>	<u>\$ 19,975</u>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 235,250	\$ 235,250	\$ -	\$ 337,000	\$ 101,750
Office Rent	707,214	707,214	-	903,786	196,572
Office Costs	598,300	598,300	-	566,020	(32,280)
Professional Services	553,700	553,700	-	585,600	31,900
<b>Total Operating Expenses</b>	<u>\$ 2,094,464</u>	<u>\$ 2,094,464</u>	<u>\$ -</u>	<u>\$ 2,392,406</u>	<u>\$ 297,942</u>
<b>Total Direct Expenses</b>	<u>\$ 5,064,760</u>	<u>\$ 5,064,760</u>	<u>\$ -</u>	<u>\$ 5,612,459</u>	<u>\$ 547,697</u>
<b>Indirect Expenses</b>	<u>\$ (5,169,034)</u>	<u>\$ (5,169,034)</u>	<u>\$ -</u>	<u>\$ (5,612,459)</u>	<u>\$ (443,425)</u>
<b>Other Non-Operating Expenses</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Total Expenses</b>	<u>\$ (104,274)</u>	<u>\$ (104,274)</u>	<u>\$ -</u>	<u>\$ (0)</u>	<u>\$ 104,272</u>
<b>Change in Assets</b>	<u>\$ 104,274</u>	<u>\$ 104,274</u>	<u>\$ -</u>	<u>\$ 0</u>	<u>\$ (104,272)</u>
<b>Fixed Assets, excluding Right of Use Assets</b>	<u>\$ 104,273</u>	<u>\$ 104,273</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (104,273)</u>
<b>TOTAL BUDGET</b>	<u>\$ (0)</u>	<u>\$ (0)</u>	<u>\$ -</u>	<u>\$ (0)</u>	<u>\$ 0</u>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ -</u>	<u>\$ 0</u>	<u>\$ (0)</u>
<b>FTEs</b>	4.00	4.00	-	4.00	-

Approved by the Texas RE Board of Directors May 15, 2019

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## Section B – Supplemental Financial Information

### 2020 Business Plan and Budget

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## Section B — Supplemental Financial Information

### Table B-1 – Reserve Balance

#### Working Capital Reserve Analysis 2019-2020

#### STATUTORY

<b>Beginning Working Capital Reserve (Deficit), December 31, 2018</b>	2,223,149
Plus: 2019 Funding (from LSEs or designees)	13,362,449
Plus: 2019 Other funding sources	15,000
Less: 2019 Projected expenses & capital expenditures	(13,069,599)
<b>Projected Working Capital Reserve (Deficit), December 31, 2019</b>	<u><u>2,530,999</u></u>
<b>Desired Working Capital Reserve, December 31, 2020</b>	2,000,000
Assessment Stabilization	793,996
Minus: Projected Working Capital Reserve, December 31, 2018	(2,530,999)
<b>Increase(decrease) in funding requirement to achieve Working Capital Reserve</b>	<u><u>263,002</u></u>
2020 Expenses and Capital Expenditures	13,831,126
Less: Penalty Sanctions <sup>1</sup>	(710,000)
Less: Other Funding Sources	(40,000)
Adjustment to achieve desired Working Capital Reserve	263,002
<b>2020 NERC Assessment</b>	<u><u>13,344,128</u></u>

<sup>1</sup> Represents collections on or prior to June 30, 2019.

### 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. For the 2018 budget period, the Board of Directors approved a reduction to the Operating Reserve to \$1,245,000 to reduce the amount of increase in assessments. The reserve was replenished at the end of 2018 due to budget under-runs. The projected Operating Reserve for the 2020 budget period is \$2,000,000. In addition to the Operating Reserve \$2,000,000 amount, \$793,996 has been set aside for assessment stabilization. This amount is the remainder of the 2018 budget under-run.

## Breakdown by Statement of Activity Sections

The following detailed schedules are in support of the statement of activities on page 10 of the 2020 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 2019. The 2020 budget was based on this information.

### **Penalty Sanctions**

Penalty monies received by June 30, 2019 are to be used to offset assessments in the 2020 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, 2019 through June 30, 2020 will be used to offset assessments in the 2021 Budget.

All penalties received by June 30, 2019 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, Education and Operator Certification. 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**

<b>Penalty Sanctions Received On or Prior to June 30, 2019</b>	<b>Date Received</b>	<b>Amount Received</b>
	7/12/2018	\$ 140,000
	7/12/1028	\$ 45,000
	7/11/2018	\$ 300,000
	11/1/2018	\$ 225,000
<b>Total Penalties Received</b>		<u><u>\$ 710,000</u></u>

**Table B-3 – Supplemental Funding**

	Budget 2019	Budget 2019	Budget 2020	Variance 2020 Budget v 2019 Budget
<b>Reliability Standards</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Reliability Assessment and Performance Analysis</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Training and Education</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>Situation Awareness and Infrastructure Security</b>				
<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<b>General and Administrative</b>				
Interest Income	\$ 15,000	\$ 15,000	\$ 40,000	\$ 25,000
<b>Total</b>	\$ 15,000	\$ 15,000	\$ 40,000	\$ 25,000
<b>Total Outside Funding</b>	\$ 15,000	\$ 15,000	\$ 40,000	\$ 25,000

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- Texas RE anticipates its investments will earn interest of approximately \$40,000 in 2020. Texas RE’s banking account is the Business Banking U.S. End of Day Money Market Mutual Fund Sweep account. This account type allows for higher interest and dividend collections.

• **Table B-4 – Personnel Expenses**

Personnel Expenses	Budget 2019	Budget 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Total Salaries	\$ 7,394,175	\$ 7,394,175	\$ 7,641,280	\$ 247,105	3.3%
Total Payroll Taxes	506,088	506,088	527,534	21,445	4.2%
Total Benefits	1,383,053	1,383,053	1,501,005	117,953	8.5%
Total Retirement	1,019,478	1,019,478	1,073,802	54,324	5.3%
<b>Total Personnel Costs</b>	<b>\$ 10,302,794</b>	<b>\$ 10,302,794</b>	<b>\$ 10,743,621</b>	<b>\$ 440,827</b>	<b>4.3%</b>
FTEs	60.00	60.00	60.00	-	0.0%
Cost per FTE					
Salaries	\$ 123,236	\$ 123,236	\$ 127,355	4,118	3.3%
Payroll Taxes	8,435	8,435	8,792	357	4.2%
Benefits	23,051	23,051	25,017	1,966	8.5%
Retirement	16,991	16,991	17,897	905	5.3%
<b>Total Cost per FTE</b>	<b>\$ 171,713</b>	<b>\$ 171,713</b>	<b>\$ 179,060</b>	<b>\$ 7,347</b>	<b>4.3%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- Total costs for Texas RE personnel expenses are increasing by 4.3%. Salaries expense is increasing 3.3%, which includes an allowance for salary increases and promotions.
- Payroll taxes are increasing 4.2%, which includes an increase in State Unemployment Insurance Tax.
- Total Benefits expense is increasing 8.5%. Health-plan expense is projected to increase 14% in 2020. Employee Benefits include education reimbursement, relocation expenses, and training and professional development.
- Retirement costs are increasing 5.3%. 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.

**Table B-5 – Meeting & Travel Expenses**

Meeting and Travel Expenses	Budget 2019	Budget 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Meetings	\$ 19,800	\$ 19,800	\$ 58,500	\$ 38,700	195.5%
Travel	349,770	349,770	318,205	(31,565)	-9.0%
Conference Calls	20,000	20,000	17,640	(2,360)	-11.8%
	<b>\$ 389,570</b>	<b>\$ 389,570</b>	<b>\$ 394,345</b>	<b>\$ 4,775</b>	<b>1.2%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- Meetings expense is increasing to include Workshop Expense for a proposed Reliability Summit in the Training and Education Program.
- The budget for all Travel and Conference Calls has been reduced to align with actual costs.

**Table B-6 – Consultants and Contracts**

Consultants and Contracts	Budget 2019	Budget 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance and Organization Registration and Certification	162,000	162,000	151,204	(10,796)	-6.7%
Reliability Assessment and Performance Analysis	-	-	-	-	
Training and Education	3,000	3,000	1,500	(1,500)	-50.0%
General and Administrative	80,000	80,000	200,000	120,000	150.0%
Legal and Regulatory	2,250	2,250	2,000	(250)	-11.1%
Information Technology	73,000	73,000	100,000	27,000	37.0%
Human Resources	80,000	80,000	35,000	(45,000)	-56.3%
Accounting and Finance	-	-	-	-	
<b>Consultants Total</b>	<b>\$ 400,250</b>	<b>\$ 400,250</b>	<b>\$ 489,704</b>	<b>\$ 89,454</b>	<b>22.3%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 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**

<b>Rent</b>	<b>Budget 2019</b>	<b>Budget 2019</b>	<b>Budget 2020</b>	<b>Variance 2020 Budget v 2019 Budget</b>	<b>Variance %</b>
Office Rent	\$ 442,214	\$ 442,214	\$ 544,638	\$ 102,424	23.2%
Utilities	250,000	250,000	\$ 344,148	94,148	37.7%
Maintenance	15,000	15,000	\$ 15,000	-	0.0%
<b>Total Office Rent &amp; Utilitites</b>	<b>\$ 707,214</b>	<b>\$ 707,214</b>	<b>\$ 903,786</b>	<b>\$ 196,572</b>	<b>27.8%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- The current lease for Texas RE’s office space ends on September 30, 2020. The lease has been extended, causing a 27.8% escalation in rent and utilities.



Table B-8 – Office Costs

Office Costs	Budget	Budget	Budget	Variance	
	2019	2019	2020	2020 Budget v 2019 Budget	Variance %
Telephone/Cell Phone	\$ 41,760	\$ 41,760	\$ 41,760	\$ -	0.0%
Internet Expense	128,000	128,000	\$ 125,000	(3,000)	-2.3%
Office Supplies	40,920	40,920	\$ 40,050	(870)	-2.1%
Computer Supplies & Maintenance	36,400	36,400	\$ 21,400	(15,000)	-41.2%
IT Remote Support	1,350	1,350	\$ 1,350	-	0.0%
Software & Software Maintenance	191,000	191,000	\$ 167,600	(23,400)	-12.3%
Subscriptions & Publications	23,950	23,950	\$ 23,680	(270)	-1.1%
Dues	8,305	8,305	\$ 7,320	(985)	-11.9%
Postage	685	685	\$ 410	(275)	-40.1%
Express Shipping	350	350	\$ 200	(150)	-42.9%
Stationary & Office Forms	2,200	2,200	\$ 1,950	(250)	-11.4%
Equipment Repair/Srv. Contracts	13,000	13,000	\$ 12,000	(1,000)	-7.7%
Bank Charges	1,500	1,500	\$ 1,800	300	20.0%
Property Taxes	15,400	15,400	\$ 15,400	-	0.0%
Merchant Credit Card Fee	500	500	\$ 1,400	900	180.0%
IT-Leased Equipment	177,000	177,000	\$ 196,000	19,000	10.7%
Office Furniture & Equipment Exp	2,500	2,500	\$ 2,500	-	0.0%
Employment Related Fees	1,250	1,250	\$ 1,250	-	0.0%
<b>Total Office Costs</b>	<b>\$ 686,070</b>	<b>\$ 686,070</b>	<b>\$ 661,070</b>	<b>\$ (25,000)</b>	<b>-3.64%</b>

#### Explanation of Significant Variances – 2020 Budget versus 2019 Budget

- All categories in the Office Costs have been adjusted in the 2020 budget to more accurately reflect actual experience.
- Computer Supplies and Maintenance are decreasing to align with actual costs.
- Software and Software Maintenance is decreasing to reflect the costs of the PI Software.
- IT-Leased equipment is increasing due to lease renewal of the laptop and server equipment. There is more equipment in the new lease, driving the costs higher.

**Table B-9 – Professional Services**

Professional Services	Budget			Variance	
	2019	2019	2020	2020 Budget v 2019 Budget	Variance %
Board of Director Fees	\$ 298,000	\$ 298,000	\$ 342,700	\$ 44,700	15.0%
Accounting & Auditing Fees	50,000	50,000	54,000	4,000	8.0%
Legal Fees	40,000	40,000	30,000	(10,000)	-25.0%
Insurance - Commercial	73,000	73,000	67,900	(5,100)	-7.0%
Professional Services-Other	92,700	92,700	94,000	1,300	1.4%
<b>Total Professional Services</b>	<b>\$ 553,700</b>	<b>\$ 553,700</b>	<b>\$ 588,600</b>	<b>\$ 34,900</b>	<b>6.3%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- Board of Director Fees have been adjusted to reflect the potential increases that may be recommended by a third-party compensation study and approved by the Director Compensation Committee in late 2019.
- Accounting and Auditing Fees are increasing slightly due to annual price adjustment.
- Legal Fees are decreasing to reflect actual cost based on experience.
- Commercial Insurance is projected to decrease slightly based on an estimate from the broker.

**Table B-10 – Miscellaneous Expense**

Miscellaneous	Budget		Budget		Budget		Variance	
	2019	2019	2019	2019	2020	2020	2020 Budget v 2019 Budget	Variance %
Miscellaneous Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
<b>Total Miscellaneous Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- N/A

**Table B-11 – Other Non-Operating Expenses**

Other Non-Operating Expenses	Budget	Budget	Budget	Variance	
	2019	2019	2020	2020 Budget v	Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -	-
Line of Credit Payment					-
Office Relocation	-	-	-		-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- N/A

**Table B-12 – Fixed Assets**

Fixed Assets	Budget	Budget	Budget	Variance	
	2019	2019	2020	2020 Budget v 2019 Budget	Variance %
Computer & Software CapEx	\$ 30,000	\$ 30,000	\$ 50,000	\$ 20,000	66.7%
Furniture & Fixtures CapEx	-	-	-	-	
Equipment CapEx	-	-	-	-	
Leasehold Improvements	-	-	-	-	
<b>Total Fix Assets</b>	<b>\$ 30,000</b>	<b>\$ 30,000</b>	<b>\$ 50,000</b>	<b>\$ 20,000</b>	<b>66.7%</b>

**Explanation of Significant Variances – 2020 Budget versus 2019 Budget**

- Computer and Software CapEx is increasing due to the possible purchase of security software.

Table B-13 – 2020 and 2021 Projection

<b>Statement of Activities, Fixed Assets Expenditures and Change in Working Capital 2020 Budget &amp; Projected 2021 and 2022 Budgets</b>							
	2020 Budget	2021 Projection	\$ Change 21 v 20	% Change 21 v 20	2022 Projection	\$ Change 22 v 21	% Change 22 v 21
<b>Funding</b>							
<b>ERO Funding</b>							
NERC Assessments	\$ 13,344,128	\$ 13,877,893	\$ 533,765	4.0%	\$ 14,453,009	\$ 575,116	4.0%
Penalty Sanctions	710,000	-	(710,000)	-100.00%	-	-	
<b>Total NERC Funding</b>	<b>\$ 14,054,128</b>	<b>\$ 13,877,893</b>	<b>\$ (176,235)</b>	<b>-1.3%</b>	<b>\$ 14,453,009</b>	<b>\$ 575,116</b>	<b>4.0%</b>
Membership Dues	-	\$ -	-		-	-	
Interest	40,000	41,600	1,600	4.00%	43,264	1,664	4.0%
<b>Total Funding</b>	<b>\$ 14,094,128</b>	<b>\$ 13,919,493</b>	<b>\$ (174,635)</b>	<b>-1.2%</b>	<b>\$ 14,496,273</b>	<b>\$ 576,780</b>	<b>4.1%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	\$ 7,641,280	\$ 7,946,931	\$ 305,651	4.0%	\$ 8,264,808	\$ 317,877	4.0%
Payroll Taxes	527,534	548,635	21,101	4.0%	570,581	21,945	4.0%
Benefits	1,501,005	1,561,046	60,040	4.0%	1,623,488	62,442	4.0%
Retirement Costs	1,073,802	1,116,754	42,952	4.0%	1,161,424	44,670	4.0%
<b>Total Personnel Expenses</b>	<b>\$ 10,743,621</b>	<b>\$ 11,173,366</b>	<b>\$ 429,745</b>	<b>4.0%</b>	<b>\$ 11,620,301</b>	<b>\$ 446,935</b>	<b>4.0%</b>
<b>Meeting &amp; Travel Expenses</b>							
Meetings	\$ 58,500	\$ 60,840	\$ 2,340	4.0%	\$ 63,273.60	2,434	4.0%
Travel	318,205	330,933	12,728	4.0%	344,171	13,237	4.0%
Conference Calls	17,640	18,346	706	4.0%	19,079	734	4.0%
<b>Total Meeting &amp; Travel Expenses</b>	<b>\$ 394,345</b>	<b>\$ 410,119</b>	<b>\$ 15,774</b>	<b>4.0%</b>	<b>\$ 426,524</b>	<b>\$ 16,405</b>	<b>4.0%</b>
<b>Operating Expenses, excluding Depreciation</b>							
Consultants & Contracts	\$ 489,704	\$ 509,292	19,588	4.0%	\$ 529,664	20,372	4.0%
Office Rent	903,786	1,098,595	194,809	21.6%	1,177,153	78,558	7.2%
Office Costs	661,070	687,513	26,443	4.0%	715,013	27,501	4.0%
Professional Services	588,600	612,144	23,544	4.0%	636,630	24,486	4.0%
<b>Total Operating Expenses</b>	<b>\$ 2,643,160</b>	<b>\$ 2,907,545</b>	<b>\$ 264,384</b>	<b>10.0%</b>	<b>\$ 3,058,460</b>	<b>\$ 150,916</b>	<b>5.2%</b>
<b>Total Direct Expenses</b>	<b>\$ 13,781,126</b>	<b>\$ 14,491,029</b>	<b>\$ 709,903</b>	<b>5.2%</b>	<b>\$ 15,105,285</b>	<b>\$ 614,255</b>	<b>4.2%</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>	
<b>Total Expenses</b>	<b>\$ 13,781,126</b>	<b>\$ 14,491,029</b>	<b>\$ 709,903</b>	<b>5.2%</b>	<b>\$ 15,105,285</b>	<b>\$ 614,255</b>	<b>4.2%</b>
<b>Change in Net Assets</b>	<b>\$ 313,002</b>	<b>\$ (571,536)</b>	<b>\$ (884,538)</b>	<b>-282.6%</b>	<b>\$ (609,012)</b>	<b>\$ (37,475)</b>	<b>6.6%</b>
<b>Fixed Assets, excluding Right of Use Assets</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ (0)</b>	<b>0.0%</b>	<b>\$ 200,000</b>	<b>\$ (37,475)</b>	<b>0.0%</b>
<b>TOTAL BUDGET</b>	<b>\$ 13,831,126</b>	<b>\$ 14,541,029</b>	<b>\$ 709,903</b>	<b>5.1%</b>	<b>\$ 15,305,284</b>	<b>\$ 614,255</b>	<b>4.2%</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ 263,002</b>	<b>\$ (621,536)</b>	<b>\$ (884,538)</b>	<b>0.0%</b>	<b>\$ (809,011)</b>	<b>(187,475)</b>	<b>30.2%</b>
FTEs	60	60	-	0.0%	60	-	0.0%

### 2021 and 2022 Projection Analysis

- Assumes overall workload will remain consistent; reflects no additional FTEs and an overall expense increase of approximately 4% per year for all categories except Rent and Utilities. The current lease for Texas RE's office space ends on September 30, 2020. The lease has been extended, causing a 21.6% escalation in rent and utilities for the 2021 projection.

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## Section C – Texas Reliability Monitor (Non-Statutory) Activities

### 2020 Business Plan and Budget

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## Section C — Texas Reliability Monitor (Non-Statutory) Business Plan and Budget

<b>State (Non-Statutory) Activities (in whole dollars)</b>			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	5.0	4.0	-
Direct Expenses	\$ 1,124,495	\$ 1,191,965	\$ 67,470
Indirect Expenses	-	-	-
Inc(Dec) in Fixed Assets	-	-	-
Total Funding Requirement	\$ 1,124,495	\$ 1,191,965	\$ 67,470

### Texas Reliability Monitor (Non-Statutory) Functional Scope

Texas RE performs non-statutory activities as the ERCOT region Reliability Monitor on behalf of the Public Utility Commission of Texas (PUCT). As the Reliability Monitor, Texas RE audits and investigates market participants' compliance with ERCOT Protocols and Operating Guides (ERCOT Regional Rules), reports possible non-compliance with reliability-related regional rules to the PUCT, and provides testimony and support to the PUCT in enforcement cases prosecuted by the PUCT. These non-statutory activities are funded through the ERCOT ISO system administration fee and payment to Texas RE is authorized by the PUCT.<sup>2</sup>

### Major 2020 Assumptions and Cost Impacts

- Texas RE will continue to be the Reliability Monitor and perform ERCOT Regional Rules compliance monitoring and reporting for the PUCT in 2020.

### 2020 Texas Reliability Monitor (Non-Statutory) Goals and Objectives

- Appropriately monitor, investigate, and report to the PUCT regarding stakeholder compliance with the ERCOT Regional Rules.
- Review and assess system disturbances for potential violations of ERCOT Regional Rules and report all findings to the PUCT.
- Provide technical expertise to the PUCT for the review and modification of ERCOT Regional Rules that impact reliability.
- Provide technical or testimony support as needed to the PUCT for its enforcement of ERCOT Regional Rules violations.

<sup>2</sup>Texas RE's current contract to serve as the PUCT's Reliability Monitor expires at the end of 2019. Texas RE expects to submit a bid to continue serving in this role, as the 2020 budget assumes that Texas RE's bid is successful. In the event Texas RE is not the successful bidder, Texas RE will submit a budget amendment to reflect the change.



### **Funding Sources**

- Texas Reliability Monitor (Non-Statutory) activities are funded through the ERCOT ISO system administration fee and payment to Texas RE is authorized by the PUCT. Texas RE's total 2020 non-statutory budget and funding is \$1,191,965.
- Total expenses for 2020 are increasing 6% over 2019.

### **Personnel Expenses**

- State (Non-statutory) personnel are decreasing to 4 FTEs to accurately reflect the personnel assigned to this activity. Personnel expenses are increasing 3.9%. Payroll taxes reflect an increase in State Unemployment Insurance. Health-plan expense is projected to increase 14% in 2020. Employee Benefits include training and professional development.

### **Meeting and Travel Expenses**

- Travel expenses are remaining consistent with 2019.

### **Operating Expenses**

- Operating Expenses are increasing to reflect an increase in rent and utilities.

### **Indirect Expenses**

- Costs are being charged directly to the expense line item in 2020; therefore, no indirect expenses are charged.

## 2020 Budget and Projection and 2019 Budget Comparisons

Statement of Activities, Fixed Assets Expenditures and Change in Working Capital					
2019 Budget & Projection, and 2020 Budget					
TEXAS RELIABILITY MONITOR (NON-STATUTORY)					
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget Over(Under)	2020 Budget	Variance 2019 Budget v 2020 Budget Over(Under)
<b>Funding</b>					
<b>ERO Funding</b>					
NERC Assessments	\$ -	\$ -		\$ -	\$ -
Penalty Sanctions	-	-		-	-
<b>Total NERC Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
PUCT	\$ 1,124,495	\$ 1,124,495		\$ 1,191,965	\$ 67,470
<b>Total Funding (A)</b>	<b>\$ 1,124,495</b>	<b>\$ 1,124,495</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>	<b>\$ 67,470</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 687,611	\$ 687,611		\$ 691,642	\$ 4,031
Payroll Taxes	46,449	46,449		47,318	869
Benefits	112,735	112,735		142,159	29,425
Retirement Costs	96,348	96,348		99,084	2,736
<b>Total Personnel Expenses</b>	<b>\$ 943,142</b>	<b>\$ 943,142</b>	<b>\$ -</b>	<b>\$ 980,203</b>	<b>\$ 37,061</b>
<b>Meeting Expenses</b>					
Meetings	\$ -	\$ -		\$ -	-
Travel	4,380	4,380		4,400	\$ 20
Conference Calls	-	-		-	-
<b>Total Meeting Expenses</b>	<b>\$ 4,380</b>	<b>\$ 4,380</b>	<b>\$ -</b>	<b>\$ 4,400</b>	<b>\$ 20</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 44,132	\$ 44,132		\$ 44,132	(0)
Office Rent	70,890	70,890		103,224	32,334
Office Costs	29,810	29,810		31,898	2,088
Professional Services	32,141	32,141		28,108	(4,033)
<b>Total Operating Expenses</b>	<b>\$ 176,973</b>	<b>\$ 176,973</b>	<b>\$ -</b>	<b>\$ 207,362</b>	<b>\$ 30,389</b>
<b>Total Direct Expenses</b>	<b>\$ 1,124,495</b>	<b>\$ 1,124,495</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>	<b>\$ 67,470</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,124,495</b>	<b>\$ 1,124,495</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>	<b>\$ 67,470</b>
<b>Change in Net Assets</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ (0)</b>
<b>Fixed Assets, excluding Right of Use Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET (=B + C)</b>	<b>\$ 1,124,495</b>	<b>\$ 1,124,495</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>	<b>67,470</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ (0)</b>	<b>\$ (0)</b>	<b>\$ -</b>	<b>\$ (0)</b>	<b>\$ (0)</b>
FTEs	5.0	5.0		4.0	

## Personnel Analysis

Total FTE's by Program Area	Budget 2019	Budget 2019	Direct FTEs 2020 Budget	Shared FTEs 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>STATE (NON-STATUTORY)</b>						
<b>Operational Programs</b>						
State (Non-Statutory)	4.00	4.00	4.00	0.00	4.00	0.00
<b>Total FTEs Operational Programs</b>	<b>4.00</b>	<b>4.00</b>	<b>4.00</b>	<b>0.00</b>	<b>4.00</b>	<b>0.00</b>
<b>Administrative Programs</b>						
G&A	1.00	1.00	0.00	0.00	0.00	-1.00
<b>Total FTEs Administrative Programs</b>	<b>1.00</b>	<b>1.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>-1.00</b>
<b>Total FTEs</b>	<b>5.00</b>	<b>5.00</b>	<b>4.00</b>	<b>0.00</b>	<b>4.00</b>	<b>-1.00</b>

A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

### **Reserve Analysis — 2019-2020**

Texas RE does not have reserves for Texas Reliability Monitor (Non-Statutory) activities due to contractual provisions ensuring minimal risk for this funding.

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## Section D – Supplemental Information

### 2020 Business Plan and Budget

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## Section D – Supplemental Information

### 2020 Consolidated Statement of Activities by Program, Statutory and Texas Reliability Monitor (Non-Statutory)

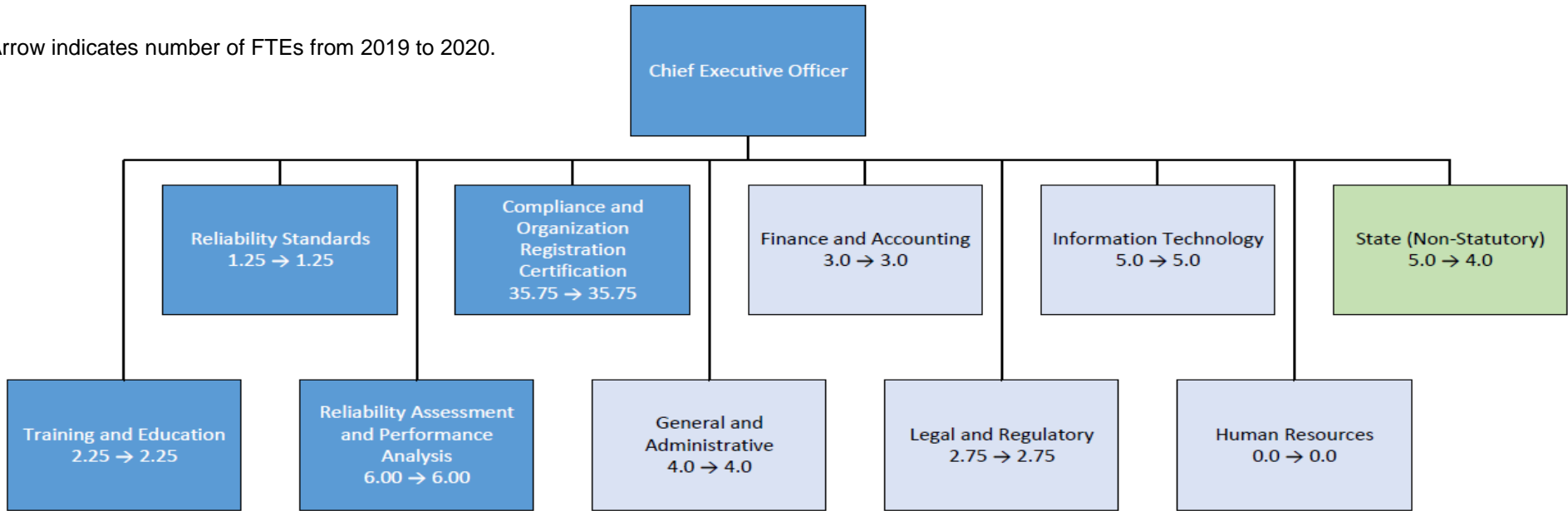
Funding	Total	Statutory Total	Texas Reliability Monitor (Non-Statutory) Total	Statutory Total	Reliability Standards	CMEP	RAPA	Training and Education	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance	Texas Reliability Monitor (Non-Statutory) Total
<b>ERO Funding</b>														
NERC Assessments	\$ 13,344,127	\$ 13,344,127	\$ -	\$ 13,344,127	\$ 368,622	\$ 10,542,598	\$ 1,769,387	\$ 663,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	710,000	710,000	-	710,000	19,613	560,939	94,144	35,304	-	-	-	-	-	-
<b>Total NERC Funding</b>	<b>\$ 14,054,127</b>	<b>\$ 14,054,127</b>	<b>\$ -</b>	<b>\$ 14,054,127</b>	<b>\$ 388,236</b>	<b>\$ 11,103,537</b>	<b>\$ 1,863,531</b>	<b>\$ 698,824</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
PUCT Fees	1,191,965	-	1,191,965	-	-	-	-	-	-	-	-	-	-	1,191,965
Interest	40,000	40,000	-	40,000	1,105	31,602	5,304	1,989	-	-	-	-	-	-
<b>Total Funding</b>	<b>\$ 15,286,092</b>	<b>\$ 14,094,127</b>	<b>\$ 1,191,965</b>	<b>\$ 14,094,127</b>	<b>\$ 389,341</b>	<b>\$ 11,135,139</b>	<b>\$ 1,868,835</b>	<b>\$ 700,813</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>
<b>Expenses</b>														
<b>Personnel Expenses</b>														
Salaries	\$ 8,332,921	\$ 7,641,280	\$ 691,642	\$ 7,641,280	\$ 163,534	\$ 4,084,786	\$ 903,185	\$ 210,025	\$ 1,098,997	\$ 380,796	\$ 472,818	\$ -	\$ 327,140	\$ 691,642
Payroll Taxes	574,852	527,534	47,318	527,534	11,883	313,103	63,114	15,109	41,572	22,856	37,233	-	22,664	47,318
Benefits	1,643,165	1,501,005	142,159	1,501,005	40,608	896,703	154,128	51,955	102,890	53,118	140,323	-	61,279	142,159
Retirement Costs	1,172,886	1,073,802	99,084	1,073,802	21,480	578,151	130,959	30,459	145,263	55,221	65,124	-	47,145	99,084
<b>Total Personnel Expenses</b>	<b>\$ 11,723,824</b>	<b>\$ 10,743,621</b>	<b>\$ 980,203</b>	<b>\$ 10,743,621</b>	<b>\$ 237,505</b>	<b>\$ 5,872,743</b>	<b>\$ 1,251,386</b>	<b>\$ 307,548</b>	<b>\$ 1,388,722</b>	<b>\$ 511,991</b>	<b>\$ 715,498</b>	<b>\$ -</b>	<b>\$ 458,228</b>	<b>\$ 980,203</b>
<b>Meeting Expenses</b>														
Meetings	\$ 58,500	\$ 58,500	\$ -	\$ 58,500	\$ -	\$ -	\$ -	\$ 34,500	\$ 10,000	\$ -	\$ -	\$ 14,000	\$ -	\$ -
Travel	322,605	318,205	4,400	318,205	9,575	114,625	73,200	3,030	81,615	13,650	10,875	5,185	6,450	4,400
Conference Calls	17,640	17,640	-	17,640	3,500	7,000	-	3,300	3,240	-	600	-	-	-
<b>Total Meeting Expenses</b>	<b>\$ 398,745</b>	<b>\$ 394,345</b>	<b>\$ 4,400</b>	<b>\$ 394,345</b>	<b>\$ 13,075</b>	<b>\$ 121,625</b>	<b>\$ 73,200</b>	<b>\$ 40,830</b>	<b>\$ 94,855</b>	<b>\$ 13,650</b>	<b>\$ 11,475</b>	<b>\$ 19,185</b>	<b>\$ 6,450</b>	<b>\$ 4,400</b>
<b>Operating Expenses, excluding Depreciation</b>														
Consultants & Contracts	\$ 533,836	\$ 489,704	\$ 44,132	\$ 489,704	\$ -	\$ 151,204	\$ -	\$ 1,500	\$ 200,000	\$ 2,000	\$ 100,000	\$ 35,000	\$ -	\$ 44,132
Office Rent	1,007,010	903,786	103,224	903,786	-	-	-	-	903,786	-	-	-	-	103,224
Office Costs	692,968	661,070	31,898	661,070	-	18,410	69,640	7,000	91,030	4,180	452,350	9,230	9,230	31,898
Professional Services	616,708	588,600	28,108	588,600	-	-	-	3,000	410,600	30,000	90,000	1,000	54,000	28,108
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation	0	0	0	0	-	-	-	-	0	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 2,850,522</b>	<b>\$ 2,643,160</b>	<b>\$ 207,362</b>	<b>\$ 2,643,160</b>	<b>\$ -</b>	<b>\$ 169,614</b>	<b>\$ 69,640</b>	<b>\$ 11,500</b>	<b>\$ 1,605,416</b>	<b>\$ 36,180</b>	<b>\$ 642,350</b>	<b>\$ 45,230</b>	<b>\$ 63,230</b>	<b>\$ 207,362</b>
<b>Total Direct Expenses</b>	<b>\$ 14,973,091</b>	<b>\$ 13,781,126</b>	<b>\$ 1,191,965</b>	<b>\$ 13,781,126</b>	<b>\$ 250,580</b>	<b>\$ 6,163,982</b>	<b>\$ 1,394,226</b>	<b>\$ 359,878</b>	<b>\$ 3,088,993</b>	<b>\$ 561,821</b>	<b>\$ 1,369,323</b>	<b>\$ 64,415</b>	<b>\$ 527,908</b>	<b>\$ 1,191,965</b>
<b>Indirect Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 155,040</b>	<b>\$ 4,434,153</b>	<b>\$ 744,193</b>	<b>\$ 279,073</b>	<b>\$ (3,088,993)</b>	<b>\$ (561,821)</b>	<b>\$ (1,369,323)</b>	<b>\$ (64,415)</b>	<b>\$ (527,908)</b>	<b>\$ -</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses</b>	<b>\$ 14,973,091</b>	<b>\$ 13,781,126</b>	<b>\$ 1,191,965</b>	<b>\$ 13,781,126</b>	<b>\$ 405,621</b>	<b>\$ 10,598,135</b>	<b>\$ 2,138,420</b>	<b>\$ 638,950</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,191,965</b>
<b>Change in Net Assets</b>	<b>\$ 313,001</b>	<b>\$ 313,001</b>	<b>\$ (0)</b>	<b>\$ 313,002</b>	<b>\$ (16,280)</b>	<b>\$ 537,004</b>	<b>\$ (269,585)</b>	<b>\$ 61,862</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>
<b>Fixed Assets, excluding Right of Use Asset</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 1,381</b>	<b>\$ 39,503</b>	<b>\$ 6,630</b>	<b>\$ 2,486</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL BUDGET</b>	<b>\$ 13,831,126</b>	<b>\$ 13,831,126</b>	<b>\$ -</b>	<b>\$ 13,831,126</b>	<b>\$ 407,002</b>	<b>\$ 10,637,638</b>	<b>\$ 2,145,050</b>	<b>\$ 641,437</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN WORKING CAPITAL</b>	<b>\$ 263,001</b>	<b>\$ 263,001</b>	<b>\$ (0)</b>	<b>\$ 263,001</b>	<b>\$ (17,661)</b>	<b>\$ 497,501</b>	<b>\$ (276,215)</b>	<b>\$ 59,376</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (0)</b>
<b>FTEs</b>	<b>64.00</b>	<b>60.00</b>	<b>4.00</b>	<b>60.00</b>	<b>1.25</b>	<b>35.75</b>	<b>6.00</b>	<b>2.25</b>	<b>4.00</b>	<b>2.75</b>	<b>5.00</b>	<b>-</b>	<b>3.00</b>	<b>4.00</b>

## Statement of Financial Position

Statement of Financial Position			
STATUTORY and STATE (NON- STATUTORY)			
	(Per Audit) 31-Dec-18	Projected 31-Dec-19	Budget 31-Dec-20
<b>ASSETS</b>			
Cash	\$ 4,304,261	\$ 2,336,756	\$ 1,154,186
Accounts receivable, net of allowance for uncollectible	-	-	-
Other Receivables	-	-	-
Prepaid expenses and other current assets	366,483	300,000	300,000
Security deposit	39,705	39,705	39,705
Cash value of insurance policies	-	-	-
Property and equipment	210,858	137,205	79,003
<b>Total Assets</b>	<b>\$ 4,921,307</b>	<b>\$ 2,813,667</b>	<b>\$ 1,572,894</b>
<b>LIABILITIES AND NET ASSETS</b>			
Liabilities			
Accounts payable and accrued expenses	\$ 892,044	\$ 850,000	\$ 850,000
Deferred income/rent	250,240	109,713	-
Deferred penalty income	-	-	-
Regional assessments	-	-	-
Deferred compensation	-	-	-
Accrued retirement liabilities			
Accrued incentive compensation			
<b>Total Liabilities</b>	<b>\$ 1,142,284</b>	<b>\$ 959,713</b>	<b>\$ 850,000</b>
Unrestricted Net Assets			
Undesignated	\$ 2,949,021	\$ 1,739,505	\$ 12,894
Regulator designated	830,002	114,449	710,000
<b>Total Net Assets</b>	<b>\$ 3,779,023</b>	<b>\$ 1,853,954</b>	<b>\$ 722,894</b>
<b>Total Liabilities and Net Assets</b>	<b>\$ 4,921,307</b>	<b>\$ 2,813,667</b>	<b>\$ 1,572,894</b>

### 2020 Texas RE Combined Statutory and Texas Reliability Monitor (Non-Statutory) Organization Chart

Arrow indicates number of FTEs from 2019 to 2020.



- Statutory Program Area
- Administrative Services Program Area
- Non-Statutory Program Area



**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 8**

**WESTERN ELECTRICITY COORDINATING COUNCIL**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



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**2020 Business Plan and Budget**

Approved by: WECC Board of Directors

Date: June 19, 2019

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## Introduction

TOTAL RESOURCES (in whole dollars)				
	2020 Budget	U.S.	Canada	Mexico
Statutory FTEs*	143.0			
Non-statutory FTEs	6.0			
<b>Total FTEs</b>	149.0			
Statutory Expenses	\$ 27,704,075			
Non-Statutory Expenses	\$ 1,828,549			
<b>Total Expenses</b>	\$ 29,532,624			
Statutory Incr(Decr) in Fixed Assets	\$ 52,014			
Non-Statutory Incr(Decr) in Fixed Assets	\$ 2,986			
<b>Total Inc(Dec) in Fixed Assets</b>	\$ 55,000			
Statutory Working Capital Requirement**	\$ 928,162			
Non-Statutory Working Capital Requirement***	\$ 352,946			
<b>Total Working Capital Requirement</b>	\$ 1,281,108			
Total Statutory Funding Requirement	\$ 28,684,250			
Total Non-Statutory Funding Requirement	\$ 2,184,481			
<b>Total Funding Requirement</b>	\$ 30,868,731			
<b>Statutory Assessments</b>	\$ 25,282,000	\$ 21,700,691	\$ 3,109,486	\$ 471,823
<b>Non-Statutory Fees</b>	\$ 2,184,481	\$ 2,162,636	\$ 21,845	\$ -
NEL****	867,599,555	726,676,149	126,897,939	14,025,467
NEL%	100.0%	83.8%	14.6%	1.6%

## 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 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 in accordance with 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 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 policy-makers through reliability planning, performance analysis, situation awareness, and event analysis; and
- Targeted educational training and outreach to build a culture of reliability and security throughout the West.

WECC creates value for the stakeholders in the Western Interconnection through:

*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*—We are uniquely situated to develop comprehensive and influential work products for the reliability and security of the Western Interconnection.

*Partnership*—We collaborate with industry and other organizations to reduce risks to the reliability and security of the Western Interconnection.

## Membership and Governance

WECC has 301 members<sup>1</sup> divided into the following five Membership Classes:

- Large Transmission Owners;
- Small Transmission Owners;
- 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;
- End Users and entities that represent the interests of End Users; and
- Representatives of state and provincial governments.

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<sup>1</sup> As of June 19, 2019.

WECC membership is open to any person or entity that has an interest in the reliable operation of the Western Interconnection's BPS. WECC membership is not a requirement for participation in the WECC Standards Development process.<sup>2</sup>

WECC is governed by a Board of Directors (Board) comprised of nine independent Directors elected by the WECC membership, and WECC's president and chief executive officer. The nine Directors are compensated by WECC for their governance and oversight activities.

Five governance committees provide functional oversight of WECC operations:

- Compliance Hearing Body (CHB);
- Finance and Audit Committee (FAC);
- Governance Committee (GC);
- Human Resources and Compensation Committee (HRCC); and
- Nominating Committee (NC).

Under the direction of the Board, additional committees provide technical advice and policy recommendations to the Board:

- Joint Guidance Committee (JGC);
- Market Interface Committee (MIC);
- Member Advisory Committee (MAC);
- Operating Committee (OC);
- Reliability Assessment Committee (RAC); and
- WECC Standards Committee (WSC).

Pursuant to Section 215(j) of the Federal Power Act, WIRAB's purpose is to advise WECC, NERC, and FERC regarding the governance of WECC, and whether proposed Reliability Standards and the budget are just, reasonable, not unduly discriminatory or preferential, and in the public interest.

WECC and FERC may request that WIRAB provide advice on other topics. Members are appointed by the Governors/Premiers from Alberta, Arizona, British Columbia, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, Wyoming, and Mexico. WECC's budget does not include any costs related to WIRAB operations.

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<sup>2</sup> Non-WECC members may participate in standards drafting teams and may vote on Regional Reliability Standards. See WECC's Reliability Standards Development Procedures.



## 2020 Key Assumptions

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. While WECC will not duplicate the efforts of other qualified entities, the Board believes WECC should proactively address issues where the impacts to the Western Interconnection's reliability and security are less understood or where WECC and its committees are positioned to make a significant contribution to Western BPS reliability and security.

Therefore, in addition to supporting the Electric Reliability Organization (ERO) Enterprise<sup>3</sup>-driven programs and long-term strategy, the Board has established the following strategic priorities for WECC:

- Monitor progress as proposals are developed for structural changes in the West and be prepared to evaluate potential impacts on reliability.
- Assess the reliability implications of the ongoing evolution of load composition and resource mix in the Western Interconnection, as well as fuel security, resource and transmission adequacy, and BPS stability.
- Identify key vulnerability issues and work with stakeholders to address them.
- Maximize sharing of operating and system data (within agreed parameters), and insights from Event Analysis including, to the extent possible, near-misses.
- Focus reliability assessment efforts on identifying the impacts and possible mitigation efforts surrounding a handful of future industry evolution scenarios or high-impact/low-probability events.

Additionally, through WECC's Strategic and Operating Planning Process, the Board approved the following Near-Term Priorities at its June 2018 meeting. These Near-Term Priorities will serve as input to update committee and program area 2019–2021 work plans. Much of the work related to the Near-Term Priorities involves staff time; specific examples of activities supporting these priorities are noted in the appropriate statutory program area sections of the business plan.

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<sup>3</sup> The ERO Enterprise is comprised of NERC and the six Regional Entities, which collectively bring together their leadership, experience, judgment, skills, and supporting technologies to fulfill the ERO's statutory obligations to assure the reliability of the North American BPS.



## Representation of Inverter-Based Resources

Improve the representation of inverter-based resources in WECC's base cases with a focus on data collection for utility-scale photovoltaic resources, battery storage, and Distributed Energy Resources (DER).

## Impacts of the Changing Resource Mix

Evaluate the impacts of the changing resource mix on:

- Existing path ratings;
- Remedial Action Scheme (RAS) effectiveness;
- The expansion of utility-scale energy storage devices;
- Protection system settings (based on fault duty);
- Resource adequacy and the advantages of alternatives for determining resource adequacy;
- The interface between the transmission and distribution systems due to DER, with a focus on modeling techniques that can be used as DER penetration increases; and
- Essential reliability services specific to the Western Interconnection.

## Expansion of RC and Market Service Providers

Evaluate potential reliability risks and mitigating measures, including consideration of Regional Reliability Standards, resulting from the expansion of Reliability Coordinators (RC) and market service providers in the Western Interconnection.

## Clarify Roles in BPS Planning

Improve coordination by clarifying the roles, responsibilities, and relationships among WECC, the Regional Planning Groups, International Planning Groups, Planning Coordinators, Transmission Planners, and other stakeholders involved in BPS planning.

## 2020 Key Strategic Goals

NERC and the Regional Entities' business plans and budgets reflect the collaborative development of the ERO Enterprise Long-term Strategy and the ERO Enterprise Operating Plan. These documents are available on NERC's website:

<http://www.nerc.com/AboutNERC/Pages/Strategic-Documents.aspx>. WECC supports both the long-term strategy and operating plan as well as deliverables specific to WECC that are





discussed in WECC's 2019-2021 Operating Plan and described in each statutory program area in [Section A](#).

Working collaboratively, the ERO Enterprise has established six perennial goals, each of which is supported by key contributing activities of the ERO Enterprise:

- Risk-responsive Reliability Standards;
- Objective, risk-informed compliance monitoring, mitigation, enforcement, and entity registration;
- Reduction of known reliability risks;
- Identification and assessment of emerging reliability risks;
- Identification and reduction of cyber and physical security risks; and
- Effective and efficient ERO Enterprise operations.

## 2020 Overview of Cost Impacts

WECC's proposed 2020 statutory budget is \$27.76 million, an \$806,000 (3.0-percent) increase from the 2019 statutory budget. The net increase is mainly due to a net of the elimination of Compliance contract labor, increase in office rent due to a new lease for the Salt Lake City office, changes in position levels, a three-percent merit pool, and labor float assumption changes based on actual turnover and vacancy rates.

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 2020 and 2019 statutory budgets are as follows:

- Personnel Expenses increase by \$842,000 primarily due to changes in position levels, a budgeted three-percent merit pool, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.
- Consultants and Contracts decrease by \$255,000 primarily due to the elimination of Compliance contract labor.
- Office Rent increases by \$275,000 primarily due to the new lease for the Salt Lake City office.

Beginning with the 2020 budget, NERC and the Regions have revised the Statements of Activities format. The goal of the new format is to improve the effectiveness of the report to the reader. These revisions are intended to ensure consistent reporting for new accounting standards (e.g., leasing standards and right-of-use assets) and streamline sections of the report related to non-cash expenses (primarily depreciation and amortization). One specific format



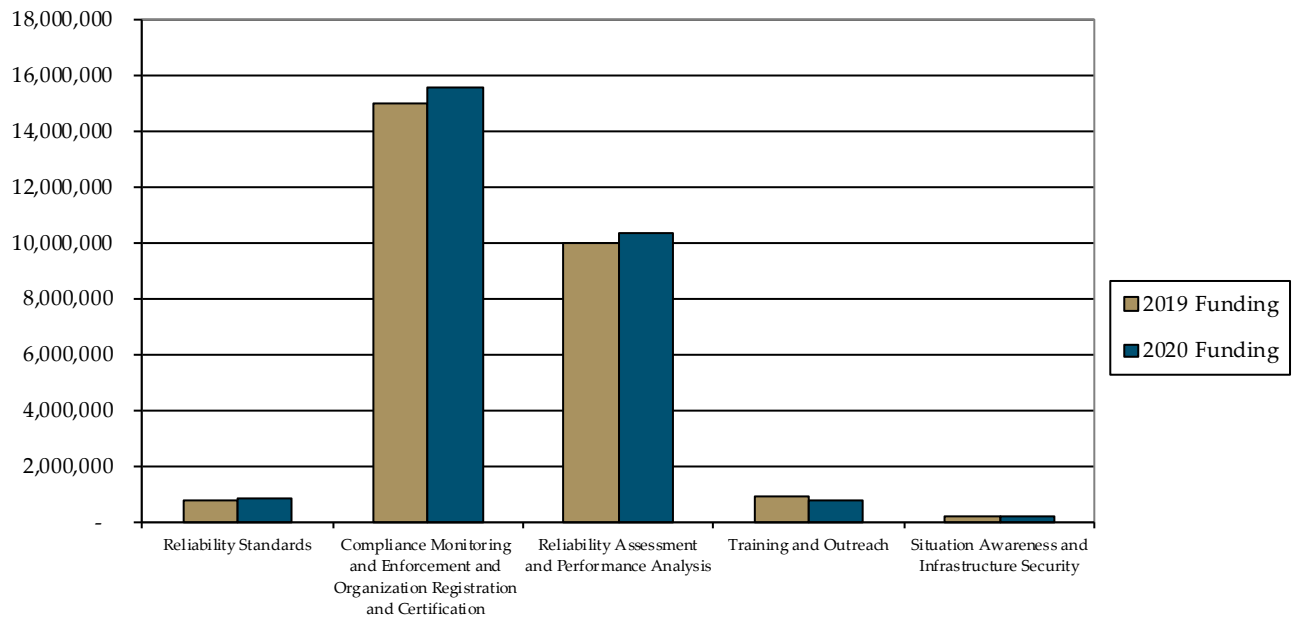
revision is the removal of an expense line item for depreciation and the corresponding credit for depreciation in the fixed asset activity section, which resulted in depreciation having no impact on funding requirements or actual results in past budgets.

In this document, the 2019 budget has been restated to reflect the new reporting format when comparing 2020 to 2019 to show budget changes on a comparable basis. As such, in the total and program Statements of Activities, depreciation expense has been removed from the 2019 operating expense budgets and projections, and an equal credit of depreciation expense has been removed from the 2019 fixed asset activity budgets and projections. The total 2019 budget amount was unchanged.

The following table and graph present a summary of funding requirements for WECC's primary statutory program areas:

Program	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 807,516	\$ 825,702	\$ 837,662	\$ 30,146	3.7%
Compliance Monitoring and Enforcement and Organization Registration and Certification	14,966,474	15,084,189	15,558,674	592,200	4.0%
Reliability Assessment and Performance Analysis	10,022,744	9,361,236	10,329,057	306,313	3.1%
Training and Outreach	938,456	889,121	794,057	(144,399)	(15.4%)
Situation Awareness and Infrastructure Security	215,376	228,894	236,639	21,263	9.9%
<b>Total By Program</b>	<b>\$ 26,950,566</b>	<b>\$ 26,389,142</b>	<b>\$ 27,756,089</b>	<b>\$ 805,523</b>	<b>3.0%</b>

### Comparison of 2020 to 2019 Budgeted Funding Requirements



## Personnel Analysis

In the 2020 budget, WECC is not adding additional FTEs. WECC realigned some positions between Program Areas in its 2020 budget due to an internal reorganization in 2019. Through attrition, and due to efficiencies gained in Corporate Services, one position was redeployed to Compliance as an auditor position. A regulatory affairs and policy analyst position was transferred from Reliability Assessment and Planning Analysis (RAPA) to Legal and Regulatory due to organizational realignment. A knowledge-transfer position was moved from Training and Outreach to Human Resources. Other allocation changes account for the remaining changes in FTEs. The transfers and allocation changes account for the balance of the changes in FTEs between 2020 and 2019. Details are discussed in the respective Program Area sections of the Business Plan and Budget.

Total FTEs by Program Area	Budget 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs * 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>STATUTORY</b>						
<b>Operational Programs</b>						
Reliability Standards	3.0	3.0	3.0	-	3.0	-
Compliance Monitoring and Enforcement and Organization Registration and Certification	60.0	62.0	61.0	-	61.0	1.0
Reliability Assessment and Performance Analysis	39.0	36.0	38.0	-	38.0	(1.0)
Training and Outreach	2.0	1.0	1.5	-	1.5	(0.5)
Situation Awareness and Infrastructure Security	1.0	1.0	1.0	-	1.0	-
<b>Total FTEs Operational Programs</b>	<b>105.0</b>	<b>103.0</b>	<b>104.5</b>	<b>-</b>	<b>104.5</b>	<b>(0.5)</b>
<b>Corporate Services</b>						
Technical Committees and Member Forums	-	-	-	-	-	-
General & Administrative	17.05	17.95	16.5	-	16.5	(0.55)
Legal and Regulatory	6.0	7.0	7.0	-	7.0	1.0
Information Technology	8.7	8.0	8.0	-	8.0	(0.7)
Human Resources	3.0	3.0	4.0	-	4.0	1.0
Finance and Accounting	3.25	2.95	3.0	-	3.0	(0.25)
<b>Total FTEs Corporate Services</b>	<b>38.0</b>	<b>38.9</b>	<b>38.5</b>	<b>-</b>	<b>38.5</b>	<b>0.5</b>
<b>Total FTEs</b>	<b>143.0</b>	<b>141.9</b>	<b>143.0</b>	<b>-</b>	<b>143.0</b>	<b>-</b>

\*A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

## 2019 Statutory Budget and Projection and 2020 Budget Comparisons

### Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget

	STATUTORY				
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 25,282,000	\$ 25,282,000	\$ -	\$ 25,282,000	\$ -
Penalty Sanctions	587,686	587,686	-	2,745,000	2,157,314
<b>Total Statutory Funding</b>	<b>\$ 25,869,686</b>	<b>\$ 25,869,686</b>	<b>\$ -</b>	<b>\$ 28,027,000</b>	<b>\$ 2,157,314</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	424,500	543,695	119,195	457,250	32,750
Interest	120,000	261,953	141,953	200,000	80,000
<b>Total Revenue (A)</b>	<b>\$ 26,414,186</b>	<b>\$ 26,675,334</b>	<b>\$ 261,148</b>	<b>\$ 28,684,250</b>	<b>\$ 2,270,064</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 15,865,018	\$ 15,595,950	\$ (269,068)	\$ 16,475,075	\$ 610,057
Payroll Taxes	1,037,393	955,714	(81,679)	1,074,352	36,959
Benefits	2,302,710	2,259,523	(43,187)	2,377,007	74,297
Retirement Costs	1,311,110	1,397,575	86,465	1,431,482	120,372
<b>Total Personnel Expenses</b>	<b>\$ 20,516,231</b>	<b>\$ 20,208,762</b>	<b>\$ (307,469)</b>	<b>\$ 21,357,916</b>	<b>\$ 841,685</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 698,553	\$ 739,371	\$ 40,818	\$ 714,095	\$ 15,542
Travel	1,408,868	1,369,791	(39,077)	1,401,818	(7,050)
<b>Total Meeting Expenses</b>	<b>\$ 2,107,421</b>	<b>\$ 2,109,162</b>	<b>\$ 1,741</b>	<b>\$ 2,115,913</b>	<b>\$ 8,492</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 1,292,890	\$ 1,062,443	\$ (230,447)	\$ 1,038,160	\$ (254,730)
Office Rent	972,909	993,850	20,941	1,248,251	275,342
Office Costs	1,557,679	1,530,383	(27,296)	1,557,312	(367)
Professional Services	908,280	922,108	13,828	953,790	45,510
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 4,731,758</b>	<b>\$ 4,508,784</b>	<b>\$ (222,974)</b>	<b>\$ 4,797,513</b>	<b>\$ 65,755</b>
<b>Total Direct Expenses</b>	<b>\$ 27,355,410</b>	<b>\$ 26,826,708</b>	<b>\$ (528,702)</b>	<b>\$ 28,271,342</b>	<b>\$ 915,932</b>
<b>Indirect Expenses</b>	<b>\$ (532,909)</b>	<b>\$ (536,716)</b>	<b>\$ (3,807)</b>	<b>\$ (567,267)</b>	<b>\$ (34,358)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 26,822,501</b>	<b>\$ 26,289,992</b>	<b>\$ (532,509)</b>	<b>\$ 27,704,075</b>	<b>\$ 881,574</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (408,315)</b>	<b>\$ 385,342</b>	<b>\$ 793,657</b>	<b>\$ 980,175</b>	<b>\$ 1,388,490</b>
<b>Fixed Asset Additions, excluding Right of Use Assets (C)</b>	<b>\$ 128,065</b>	<b>\$ 99,148</b>	<b>\$ (28,917)</b>	<b>\$ 52,014</b>	<b>\$ (76,051)</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 26,950,566</b>	<b>\$ 26,389,140</b>	<b>\$ (561,426)</b>	<b>\$ 27,756,089</b>	<b>\$ 805,523</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (536,380)</b>	<b>\$ 286,194</b>	<b>\$ 822,574</b>	<b>\$ 928,161</b>	<b>\$ 1,464,541</b>
FTEs	143.0	142.0	(1.0)	143.0	-
HC	143.0	142.0	(1.0)	143.0	-





# Section A

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**Statutory Programs**

## Section A—Statutory Programs

### Reliability Standards

<b>Reliability Standards Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	3.0	3.0	-
Direct Expenses	\$ 544,095	\$ 552,536	\$ 8,441
Indirect Expenses	\$ 266,454	\$ 283,633	\$ 17,179
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (3,033)	\$ 1,493	\$ 4,526
Total Funding Requirement	\$ 807,516	\$ 837,662	\$ 30,146

#### Program Scope and Functional Description

The Reliability Standards Program supports the NERC Reliability Standards Program as well as facilitates 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 Criteria. These reviews can result in revisions to the reviewed document, a finding that no changes are necessary, or the retirement of the document if it is determined that 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 in instances in which Western stakeholders desire more stringent performance. WECC will only develop an RRS (rather than a variance) when a NERC Reliability Standard addressing a reliability issue does not exist.

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.



## 2020 Key Assumptions

- WECC expects the number of RRS projects to remain low, with the majority focusing on potential retirement of existing RRSs, due to the subject matter now being included in NERC Continent-wide Standards. It is possible, but not likely, that regulatory directives could result in RRS projects. For 2020, it may be necessary to develop either new RRSs or Regional Variances to NERC Reliability Standards to address potential reliability concerns resulting from the addition of multiple new RCs in the Western Interconnection.
- WECC expects that much of the work required to develop RRSs, Regional Variances to NERC Reliability Standards, and Regional Criteria will continue to be performed by voluntary stakeholder participation.
- Continue to rely on stakeholder volunteers to staff most NERC Standards drafting teams. Staff 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 or RRSs. WECC supports the concept and will participate, when appropriate, in the enhanced periodic reviews of NERC Reliability Standards.
- Inverter-based resource growth may result in the need for a new RRS or a Regional Variance to NERC Reliability Standards.
- WECC expects that the effort necessary to complete these assumptions can be achieved by existing resources.

## 2020 Goals and Deliverables

- Represent the Western Interconnection perspective 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 in accordance with 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 obtained from audit and enforcement experiences as well as information learned through events analysis to determine whether any new RRSs or revisions to existing RRSs are necessary.

### **Resource Requirements/Explanation of Significant Changes**

#### *Personnel Expenses*

- No significant changes.

#### *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 2019 and 2020 budgets.



## Reliability Standards Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget					
RELIABILITY STANDARDS					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 771,224	\$ 771,224	\$ -	\$ 781,127	\$ 9,903
Penalty Sanctions	16,791	16,791	-	78,804	62,013
<b>Total Statutory Funding</b>	<b>\$ 788,015</b>	<b>\$ 788,015</b>	<b>\$ -</b>	<b>\$ 859,931</b>	<b>\$ 71,916</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	3,429	7,630	4,201	5,742	2,313
<b>Total Revenue (A)</b>	<b>\$ 791,444</b>	<b>\$ 795,645</b>	<b>\$ 4,201</b>	<b>\$ 865,673</b>	<b>\$ 74,229</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 423,024	\$ 418,160	\$ (4,864)	\$ 427,045	\$ 4,021
Payroll Taxes	26,828	26,064	(764)	26,752	(76)
Benefits	37,174	55,654	18,480	39,901	2,727
Retirement Costs	34,984	38,193	3,209	37,153	2,169
<b>Total Personnel Expenses</b>	<b>\$ 522,010</b>	<b>\$ 538,071</b>	<b>\$ 16,061</b>	<b>\$ 530,851</b>	<b>\$ 8,841</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 260	\$ -	\$ (260)	\$ -	\$ (260)
Travel	18,290	19,797	1,507	18,250	(40)
<b>Total Meeting Expenses</b>	<b>\$ 18,550</b>	<b>\$ 19,797</b>	<b>\$ 1,247</b>	<b>\$ 18,250</b>	<b>\$ (300)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	3,535	3,361	(174)	3,435	(100)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 3,535</b>	<b>\$ 3,361</b>	<b>\$ (174)</b>	<b>\$ 3,435</b>	<b>\$ (100)</b>
<b>Total Direct Expenses</b>	<b>\$ 544,095</b>	<b>\$ 561,229</b>	<b>\$ 17,134</b>	<b>\$ 552,536</b>	<b>\$ 8,441</b>
<b>Indirect Expenses</b>	<b>\$ 266,454</b>	<b>\$ 268,358</b>	<b>\$ 1,904</b>	<b>\$ 283,633</b>	<b>\$ 17,179</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 810,549</b>	<b>\$ 829,587</b>	<b>\$ 19,038</b>	<b>\$ 836,169</b>	<b>\$ 25,620</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (19,105)</b>	<b>\$ (33,942)</b>	<b>\$ (14,837)</b>	<b>\$ 29,504</b>	<b>\$ 48,609</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (3,033)</b>	<b>\$ (3,885)</b>	<b>\$ (852)</b>	<b>\$ 1,493</b>	<b>\$ 4,526</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 807,516</b>	<b>\$ 825,702</b>	<b>\$ 18,186</b>	<b>\$ 837,662</b>	<b>\$ 30,146</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (16,072)</b>	<b>\$ (30,057)</b>	<b>\$ (13,985)</b>	<b>\$ 28,011</b>	<b>\$ 44,083</b>
FTEs	3.0	3.0	-	3.0	-
HC	3.0	3.0	-	3.0	-



## Compliance Monitoring and Enforcement and Organization Registration and Certification Program

<b>Compliance Monitoring and Enforcement and Organization Registration and Certification Program</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	60.0	61.0	1.0
Direct Expenses	\$ 9,698,042	\$ 9,761,102	\$ 63,060
Indirect Expenses	\$ 5,329,085	\$ 5,767,210	\$ 438,125
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (60,654)	\$ 30,362	\$ 91,016
Total Funding Requirement	\$ 14,966,473	\$ 15,558,674	\$ 592,201

### Program Scope and Functional Description

The Compliance Monitoring and Enforcement and Organization Registration and Certification Program (CMEP) is implemented by Reliability and Security Oversight and Enforcement staff, who are independent of all users, owners, and operators of the BPS.

To accomplish its objectives, staff is divided into five main areas:

- 1) Organization Registration;
- 2) Risk Assessment and Mitigation;
- 3) Compliance Monitoring;
- 4) Enforcement; and
- 5) Oversight Analysis and Program Services.

WECC will continue to conduct its monitoring and enforcement activities in accordance with the Board-endorsed Regulatory Philosophy, the key tenets of which are: be an informed regulator, identify top risks to reliability, exercise discretion responsibly, and enforce fairly. Staff monitors and enforces the FERC-approved NERC Reliability Standards across 377<sup>4</sup> registered owners, operators, and users of the BPS through a variety of risk-based activities. Staff will dedicate, assess, and deploy required resources in support of the ERO Enterprise-level initiatives, which include the following activities:

- Regional Reliability Risk Assessments;

<sup>4</sup> As of June 19, 2019.



- Inherent Risk Assessments (IRA);
- Internal Controls Evaluations (ICE);
- Organization Registration;
- Mitigation plan reviews, acceptance, approvals, and verification;
- Reviews of self-logged minimal risk issues;
- Processing and assessing self-reports and self-certification requests;
- Review and validation of periodic data submittals;
- Internal compliance program assessments;
- Monitoring activities, such as compliance audits, spot-checks, investigations and assessments of complaints;
- Creation of compliance oversight plans along with schedules to align monitoring activities based on potential risk;
- Bulk Electric System (BES) Exception request activities; and
- Enforcement activities in accordance with established risk-based approaches.

These are joint-ERO Enterprise initiatives that benefit NERC, the Regional Entities, and the registered entities.

### **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 compliance monitoring activities to help assure reliability across international borders within the Western Interconnection.

### **2020 Key Assumptions**

The CMEP incorporates the Regional Entity-specific contributing activities as described in the ERO Enterprise Operating Plan, and includes the following additional WECC-specific assumptions:

- WECC promotes a culture of compliance that addresses reliability risks by monitoring the FERC-approved NERC Reliability Standards for applicable entities through audits and/or spot-checks. WECC applies a risk-based approach that covers and ensures all audit, on-site/off-site, and post-audit activities are completed in accordance with the



NERC Rules of Procedure and the CMEP within the United States. With respect to non-U.S. jurisdictions, WECC monitors compliance in accordance with the approved agreements and applicable compliance monitoring programs with Canadian and Mexican authorities.

- WECC will develop and implement compliance oversight plans for registered entities. The plans will focus on relevant risks, including consideration of inherent risk assessments, entity performance history, and the effectiveness of internal controls.
- WECC will continue work 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 ICEs for international entities.
- WECC will allocate resources and provide continued support for the implementation of cybersecurity Reliability Standards for CIP v5 low-impact training, coordination, and facilitation of ERO Enterprise efforts and initiatives.
- Resource allocation will continue for activities associated with registration. WECC plans to participate in four 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. WECC will continue to review, assess, validate, and submit registration recommendations to NERC for new registrations, partial deactivations, transfer of access, and full deregistration changes impacting the NERC Compliance Registry (NCR).
- WECC will fully support ERO Enterprise efforts and activities to evaluate ERO business practices, consistency, implementation, and guidance within the risk-based CMEP. WECC will provide feedback to the ERO Enterprise regarding existing risks, with an emphasis on standards development, standards modification, audit and monitoring approaches, and potential gaps. WECC will work within the ERO Enterprise to develop application business requirements and allocate resources to test business functionality for application projects.
- WECC will use the results of the Regional Risk Assessment (RRA) to build areas of focus in the WECC CMEP Implementation Plan.
- WECC does not foresee any hearings in 2020. To date, WECC has never had a hearing and, therefore, does not budget for them. Any costs related to a hearing that may occur will be funded through working capital reserves.
- One FTE is transferred from Information Technology to support audit workload.



## 2020 Goals and Deliverables

- Continue to support the transition to Align by providing outreach and training to Registered Entities.
- Process and complete organization registration request reviews, validations, and recommendations to NERC in accordance with risk-based registration activities and initiatives.
- Process all BES Exception submittals.
- Participate in ERO Enterprise working groups to ensure consistency in processing registration requests in accordance with the NERC Rules of Procedure outlined in Appendix 5B (Statement of Compliance Registry Criteria).
- Monitor and enforce compliance with mandatory standards in accordance with the WECC/NERC Delegation Agreement, including the Rules of Procedure and the CMEP within the U.S. With respect to non-U.S. jurisdictions, monitor compliance in accordance with the approved agreements and applicable compliance monitoring programs with Canadian and Mexican authorities.
- Complete 23 on-site audits and 10 off-site audits of registered entities for 2020. Additional compliance audits and/or spot-checks will be determined from risk-based analysis.
- Complete initial IRAs by the end of 2020 for all entities registered after June 2016.
- Gather and review risk reports and operations information to update WECC's RRA of the Western Interconnection.
- Work with registered entities within the WECC Region to promote a strong culture of reliability and security.
- Represent the Western Interconnection in the development of NERC and regional initiatives.
- Conduct industry outreach in various forums—webinars, conferences, and entity-specific engagements—in support of ERO Enterprise activities and priorities.
- Monitor and manage enforcement measures and metrics in support of the ERO Enterprise Strategic Plan, 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 violation fact and circumstance reviews, and resolve 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 \$445,000 primarily due to one FTE transferred from Information Technology, a budgeted three-percent 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 \$23,000 primarily due to planned reductions in travel requirements for support staff.

#### *Operating Expenses*

- Consultants & Contracts decrease by \$262,000 due to the elimination of Compliance contract labor, corresponding knowledge transfer to existing staff, and the addition of one FTE.
- Office Costs decrease by \$94,000 primarily due to the implementation of Align and the resulting reduction in webCDMS licensing fees.

#### *Fixed Assets*

- Fixed Assets increase by a net of \$91,000 primarily due to a reduction in fixed asset additions and changes in financial presentation of depreciation.

See Section B—Supplemental Financial Information for explanations of other variances between the 2019 and 2020 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 2019 Budget & Projection, and 2020 Budget					
COMPLIANCE MONITORING AND ENFORCEMENT AND ORGANIZATION REGISTRATION AND CERTIFICATION					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 14,264,214	\$ 14,264,214	\$ -	\$ 14,359,865	\$ 95,651
Penalty Sanctions	335,821	335,821	-	1,602,344	1,266,523
<b>Total Statutory Funding</b>	<b>\$ 14,600,035</b>	<b>\$ 14,600,035</b>	<b>\$ -</b>	<b>\$ 15,962,209</b>	<b>\$ 1,362,174</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	68,571	157,680	89,109	116,746	48,175
<b>Total Revenue (A)</b>	<b>\$ 14,668,606</b>	<b>\$ 14,757,715</b>	<b>\$ 89,109</b>	<b>\$ 16,078,955</b>	<b>\$ 1,410,349</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 6,521,216	\$ 6,683,851	\$ 162,635	\$ 6,889,592	\$ 368,376
Payroll Taxes	449,911	431,708	(18,203)	471,719	21,808
Benefits	789,012	768,962	(20,050)	783,899	(5,113)
Retirement Costs	538,748	599,403	60,655	598,756	60,008
<b>Total Personnel Expenses</b>	<b>\$ 8,298,887</b>	<b>\$ 8,483,924</b>	<b>\$ 185,037</b>	<b>\$ 8,743,966</b>	<b>\$ 445,079</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 4,910	\$ 5,326	\$ 416	\$ 1,505	\$ (3,405)
Travel	835,205	763,889	(71,316)	812,183	(23,022)
<b>Total Meeting Expenses</b>	<b>\$ 840,115</b>	<b>\$ 769,215</b>	<b>\$ (70,900)</b>	<b>\$ 813,688</b>	<b>\$ (26,427)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 261,890	\$ 84,993	\$ (176,897)	\$ -	\$ (261,890)
Office Rent	-	-	-	-	-
Office Costs	297,150	280,274	(16,876)	203,448	(93,702)
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 559,040</b>	<b>\$ 365,267</b>	<b>\$ (193,773)</b>	<b>\$ 203,448</b>	<b>\$ (355,592)</b>
<b>Total Direct Expenses</b>	<b>\$ 9,698,042</b>	<b>\$ 9,618,406</b>	<b>\$ (79,636)</b>	<b>\$ 9,761,102</b>	<b>\$ 63,060</b>
<b>Indirect Expenses</b>	<b>\$ 5,329,085</b>	<b>\$ 5,546,062</b>	<b>\$ 216,977</b>	<b>\$ 5,767,210</b>	<b>\$ 438,125</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 15,027,127</b>	<b>\$ 15,164,468</b>	<b>\$ 137,341</b>	<b>\$ 15,528,312</b>	<b>\$ 501,185</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (358,521)</b>	<b>\$ (406,753)</b>	<b>\$ (48,232)</b>	<b>\$ 550,643</b>	<b>\$ 909,164</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (60,654)</b>	<b>\$ (80,280)</b>	<b>\$ (19,626)</b>	<b>\$ 30,362</b>	<b>\$ 91,015</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 14,966,474</b>	<b>\$ 15,084,189</b>	<b>\$ 117,715</b>	<b>\$ 15,558,674</b>	<b>\$ 592,200</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (297,868)</b>	<b>\$ (297,868)</b>	<b>\$ (28,606)</b>	<b>\$ 520,281</b>	<b>\$ 818,149</b>
FTEs	60.0	62.0	2.0	61.0	1.0
HC	60.0	62.0	2.0	61.0	1.0





## Reliability Assessment and Performance Analysis

Reliability Assessment and Performance Analysis (in whole dollars)			
	2019 Budget	2020 Budget	Increase (Decrease)
Total FTEs	39.0	38.0	(1.0)
Direct Expenses	\$ 6,598,263	\$ 6,717,454	\$ 119,191
Indirect Expenses	\$ 3,463,906	\$ 3,592,689	\$ 128,783
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (39,425)	\$ 18,914	\$ 58,339
Total Funding Requirement	\$ 10,022,744	\$ 10,329,057	\$ 306,313

### Program Scope and Functional Description

Staff conducts a variety of assessments, analyses, and studies essential to the reliable planning and operation of the BPS in the Western Interconnection. In addition, staff compiles and distributes data and information used by stakeholders to aid in 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 Department* conducts robust analyses on the historical operation and performance of the Western Interconnection to use as building blocks to assess interconnection-wide risks and vulnerabilities. The information produced helps to identify best practices and mitigate potential risk.
2. The *Events Analysis Department* analyzes system conditions and events that impact or have the potential to impact the reliable operation of the BPS. The activities of the department ensure that stakeholders, NERC, and FERC are well-informed of system events, emerging trends, lessons learned, and expected actions impacting 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 MOD-32 and is focused on developing the planning tools and data sets to support transmission planning, and performing 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.

In addition to the Western Interconnection-specific work described above, the RAPA Program supports the development of NERC's RAPA activities through targeted data gathering and, as needed, participation in the Summer, Winter, Long-Term Reliability, and Special Assessments.

### **2020 Key Assumptions**

The RAPA Program incorporates the Regional Entity-specific contributing activities as described in the ERO Enterprise Operating Plan, and includes the following additional WECC-specific assumptions:

- Staff and technical committees continue to focus on assessment activities that address the Strategic Priority areas identified by the Board in December 2016 and the Near-Term Priorities approved by the Board in June 2018.
- Building on the NERC Reliability Issues Steering Committee (RISC) Report, staff and stakeholders will continue to play a leadership role in the identification of Western Interconnection-specific reliability challenges.
- In 2019, the RAC re-envisioned its assessment process and moved toward issue-based assessments. Staff will refine the approach in 2020 and work with stakeholders and policymakers to identify key vulnerabilities.
- Meetings occurring during January 2020 may need to be hosted off-site due to Salt Lake City meeting space upgrades.
- One FTE is transferred to Legal and Regulatory due to organizational realignment.

### **2020 Goals and Deliverables**

- Continue the three-year planning cycle, in conjunction with the JGC, to align staff and technical committee work plans in support of the Board-approved strategic priorities.
- Coordinate internally with Western Interconnection stakeholders and NERC to ensure that emerging reliability challenges, such as those potentially resulting from the expansion of RC and market service providers, are identified and addressed.
- Prepare interconnection-wide power flow and stability base cases and conduct studies to address key reliability challenges facing the Western Interconnection.
- Provide technical oversight, insight, and guidance to analyze the effects of the changing resource mix and recommend any actions to minimize reliability risks or improve modeling capabilities.



- Create and model alternate plausible futures for the Western Interconnection, considering technical, economic, policy, and other drivers.
- Implement lessons learned from the 2028 Anchor Data Set (ADS) development process and complete development of the 2030 ADS.
- Facilitate dynamic model development, focusing on new technology resources, such as inverter-based resources.
- Continue to develop and maintain database(s) for production cost and other models.
- Enhance tools and capabilities used for probabilistic-based planning and analysis.
- Enhance tools to study the impact of changing load characteristics and integration of new technology resources.
- Conduct reliability assessments evaluating the adequacy and security of the BPS in the planning horizon, including supporting the NERC Long-Term Reliability Assessment and incorporated probabilistic assessment, Summer Reliability Assessment, and Winter Reliability Assessment.
- Conduct Special Reliability Assessments as needed for low-probability/high-impact events such as geomagnetic disturbances or prolonged droughts.
- Conduct Special Reliability Assessments to study the benefits and impacts of integrating new technology resources.
- Use data from actual system disturbances to validate power flow and stability base-case models.
- Publish transmission maps of the existing and planned system in the West.
- Facilitate the Project Coordination and Project Rating Review Process.
- Process BES Exception requests.
- 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.
- Analyze trends and patterns in historical system performance, resource and load composition, and publish in reports such as the annual State of the Interconnection report.
- Assess entity performance through site visits or short surveys regarding key operational practices to identify and share best practices and potential risks to Interconnection-wide reliability.

- Evaluate historical system performance trends to identify reliability risk metrics, key indicators, and potential improvement strategies. Work with technical committees to engage in proactive reliability improvement activities.
- Enhance risk analysis capabilities through increased analysis of risk data sources such as Event Analysis reports, TADS, GADS, and protection system misoperations.
- Identify key vulnerability issues and work with stakeholders to address them (e.g., physical and cybersecurity, situation awareness and coordination across neighboring systems, human performance, and equipment misoperations or failures).
- Complete Event Analysis reports and develop lessons learned to minimize the possibility and reoccurrence of significant events.
- Educate stakeholders about Event Analysis work and specific events on the system through an Event Analysis dashboard.
- Align internal processes and tools around the Event Analysis process to ensure consistency in information and analysis.
- 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 \$149,000 primarily due to a net of one FTE transferred to Legal and Regulatory, a budgeted three-percent 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 \$50,000 primarily due to refinement of meeting attendance and costs.

#### *Operating Expenses*

- Consultants & Contracts increase by \$10,000 primarily due to impact studies of the changing resource mix. Studies will relate to the potential impacts on existing Path Ratings and/or RAS effectiveness as the resource mix in the Western Interconnection continues to evolve.



- Office Costs increase by \$10,000 primarily due to increases in computer licensing fees.

*Fixed Assets*

- Fixed Assets increase by a net of \$58,000 primarily due to a reduction in fixed asset additions and changes in financial presentation of depreciation.

See Section B—Supplemental Financial Information for explanations of other variances between the 2019 and 2020 budgets.



## Reliability Assessment and Performance Analysis Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget					
RELIABILITY ASSESSMENT AND PERFORMANCE ANALYSIS					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 9,560,414	\$ 9,560,414	\$ -	\$ 9,603,551	\$ 43,137
Penalty Sanctions	218,283	218,283	-	998,182	779,899
<b>Total Statutory Funding</b>	<b>\$ 9,778,697</b>	<b>\$ 9,778,697</b>	<b>\$ -</b>	<b>\$ 10,601,733</b>	<b>\$ 823,036</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	44,571	91,556	46,985	72,727	28,156
<b>Total Revenue (A)</b>	<b>\$ 9,823,268</b>	<b>\$ 9,870,253</b>	<b>\$ 46,985</b>	<b>\$ 10,674,460</b>	<b>\$ 851,192</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,278,285	\$ 3,938,155	\$ (340,130)	\$ 4,371,606	\$ 93,321
Payroll Taxes	294,608	259,301	(35,307)	299,047	4,439
Benefits	494,397	460,521	(33,876)	519,073	24,676
Retirement Costs	353,659	360,449	6,790	380,135	26,476
<b>Total Personnel Expenses</b>	<b>\$ 5,420,949</b>	<b>\$ 5,018,426</b>	<b>\$ (402,523)</b>	<b>\$ 5,569,861</b>	<b>\$ 148,912</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 128,110	\$ 30,944	\$ (97,166)	\$ 77,685	\$ (50,425)
Travel	244,640	267,232	22,592	245,010	370
<b>Total Meeting Expenses</b>	<b>\$ 372,750</b>	<b>\$ 298,176</b>	<b>\$ (74,574)</b>	<b>\$ 322,695</b>	<b>\$ (50,055)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 590,000	\$ 632,092	\$ 42,092	\$ 600,000	\$ 10,000
Office Rent	-	-	-	-	-
Office Costs	214,564	238,861	24,297	224,898	10,334
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 804,564</b>	<b>\$ 870,953</b>	<b>\$ 66,389</b>	<b>\$ 824,898</b>	<b>\$ 20,334</b>
<b>Total Direct Expenses</b>	<b>\$ 6,598,263</b>	<b>\$ 6,187,555</b>	<b>\$ (410,708)</b>	<b>\$ 6,717,454</b>	<b>\$ 119,191</b>
<b>Indirect Expenses</b>	<b>\$ 3,463,906</b>	<b>\$ 3,220,295</b>	<b>\$ (243,611)</b>	<b>\$ 3,592,689</b>	<b>\$ 128,783</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 10,062,169</b>	<b>\$ 9,407,850</b>	<b>\$ (654,319)</b>	<b>\$ 10,310,143</b>	<b>\$ 247,974</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (238,901)</b>	<b>\$ 462,403</b>	<b>\$ 701,304</b>	<b>\$ 364,317</b>	<b>\$ 603,218</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (39,425)</b>	<b>\$ (46,614)</b>	<b>\$ (7,189)</b>	<b>\$ 18,914</b>	<b>\$ 58,339</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 10,022,744</b>	<b>\$ 9,361,236</b>	<b>\$ (661,508)</b>	<b>\$ 10,329,057</b>	<b>\$ 306,313</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (199,476)</b>	<b>\$ 509,017</b>	<b>\$ 708,493</b>	<b>\$ 345,403</b>	<b>\$ 544,879</b>
FTEs	39.0	36.0	(3.0)	38.0	(1.0)
HC	40.0	37.0	(3.0)	39.0	(1.0)

## Training and Outreach

<b>Training and Outreach</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	2.0	1.5	(0.5)
Direct Expenses	\$ 762,842	\$ 651,493	\$ (111,349)
Indirect Expenses	\$ 177,636	\$ 141,817	\$ (35,819)
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (2,022)	\$ 747	\$ 2,769
Total Funding Requirement	\$ 938,456	\$ 794,057	\$ (144,399)

### Program Scope and Functional Description

The Training and Outreach Program provides outreach, education, and training on the application of Reliability Standards, compliance issues, improvement of compliance programs, reliability planning and performance analysis, grid operations, and human performance.

### 2020 Key Assumptions

The Training and Outreach Program incorporates the Regional Entity-specific contributing activities as described in the ERO Enterprise Operating Plan, and includes the following additional WECC-specific assumptions:

- Deliver two Reliability and Security Workshops to provide in-depth education and training related to:
  - 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.
- Conduct webinars and workshops to expand awareness of reliability planning tools, modeling capabilities, and study results.

### 2020 Goals and Deliverables

- Deliver nine Compliance Open Webinars.
- Deliver three Grid Fundamentals workshops.
- Deliver one Compliance 101 workshop.
- Deliver one Human Performance conference.



- Deliver two Reliability and Security Workshops.
- Deliver educational webinars and workshops on:
  - Reliability planning tools and modeling capabilities, including base-case and common-case studies;
  - Contingency studies and analysis;
  - RAC studies;
  - Scenario planning and regulatory issues and trends; and
  - Event analysis.

### **Resource Requirements/Explanation of Significant Changes**

#### *Personnel Expenses*

- Personnel Expenses decrease by \$133,000 primarily due to a net of one FTE transferred to Human Resources, a budgeted three-percent merit pool, continued refinement of labor float percentages, changes in position levels and allocations, and the refinement of payroll tax and benefits rates.

#### *Meeting Expenses*

- No significant changes.

#### *Operating Expenses*

- Office Costs increase by \$18,000 primarily due to anticipated increases in printing costs, meeting registration costs, and shipping fees, which are directly related to increases in anticipated attendance.

#### *Fixed Assets*

- No significant changes.

See Section B—Supplemental Financial Information for explanations of other variances between the 2019 and 2020 budgets.





## Training and Outreach Program Funding Sources and Expenditures

### Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget

#### TRAINING AND OUTREACH

	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 481,798	\$ 481,798	\$ -	\$ 321,087	\$ (160,711)
Penalty Sanctions	11,194	11,194	-	39,402	28,208
<b>Total Statutory Funding</b>	<b>\$ 492,992</b>	<b>\$ 492,992</b>	<b>\$ -</b>	<b>\$ 360,489</b>	<b>\$ (132,503)</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	424,500	536,150	111,650	457,250	32,750
Interest	2,286	2,543	257	2,871	585
<b>Total Revenue (A)</b>	<b>\$ 919,778</b>	<b>\$ 1,031,685</b>	<b>\$ 111,907</b>	<b>\$ 820,610</b>	<b>\$ (99,168)</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 254,696	\$ 160,554	\$ (94,142)	\$ 143,854	\$ (110,842)
Payroll Taxes	18,305	10,933	(7,372)	10,433	(7,872)
Benefits	29,484	20,521	(8,963)	23,842	(5,642)
Retirement Costs	21,064	13,461	(7,603)	12,515	(8,549)
<b>Total Personnel Expenses</b>	<b>\$ 323,549</b>	<b>\$ 205,469</b>	<b>\$ (118,080)</b>	<b>\$ 190,644</b>	<b>\$ (132,905)</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 409,173	\$ 543,283	\$ 134,110	\$ 405,905	\$ (3,268)
Travel	10,603	12,109	1,506	11,475	872
<b>Total Meeting Expenses</b>	<b>\$ 419,776</b>	<b>\$ 555,392</b>	<b>\$ 135,616</b>	<b>\$ 417,380</b>	<b>\$ (2,396)</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ 6,160	\$ 6,160	\$ 6,160	\$ 6,160
Office Rent	-	-	-	-	-
Office Costs	19,517	33,942	14,425	37,309	17,792
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 19,517</b>	<b>\$ 40,102</b>	<b>\$ 20,585</b>	<b>\$ 43,469</b>	<b>\$ 23,952</b>
<b>Total Direct Expenses</b>	<b>\$ 762,842</b>	<b>\$ 800,963</b>	<b>\$ 38,121</b>	<b>\$ 651,493</b>	<b>\$ (111,349)</b>
<b>Indirect Expenses</b>	<b>\$ 177,636</b>	<b>\$ 89,453</b>	<b>\$ (88,183)</b>	<b>\$ 141,817</b>	<b>\$ (35,819)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 940,478</b>	<b>\$ 890,416</b>	<b>\$ (50,062)</b>	<b>\$ 793,310</b>	<b>\$ (147,168)</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (20,700)</b>	<b>\$ 141,269</b>	<b>\$ 161,969</b>	<b>\$ 27,300</b>	<b>\$ 48,000</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>					
	<b>\$ (2,022)</b>	<b>\$ (1,295)</b>	<b>\$ 727</b>	<b>\$ 747</b>	<b>\$ 2,769</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 938,456</b>	<b>\$ 889,121</b>	<b>\$ (49,335)</b>	<b>\$ 794,057</b>	<b>\$ (144,399)</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (18,678)</b>	<b>\$ 142,564</b>	<b>\$ 161,242</b>	<b>\$ 26,553</b>	<b>\$ 45,231</b>
FTEs	2.0	1.0	(1.0)	1.5	(0.5)
HC	2.0	1.0	(1.0)	1.0	(1.0)



## Situation Awareness and Infrastructure Security

<b>Situation Awareness and Infrastructure Security</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	1.0	1.0	-
Direct Expenses	\$ 127,569	\$ 141,597	\$ 14,028
Indirect Expenses	\$ 88,818	\$ 94,544	\$ 5,726
Other Non-Operating Expenses	\$ -	\$ -	\$ -
Inc(Dec) in Fixed Assets	\$ (1,011)	\$ 498	\$ 1,509
Total Funding Requirement	\$ 215,376	\$ 236,639	\$ 21,263

### 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 of the BPS. WECC has access to limited Real-time data via the Situation Awareness for FERC, NERC, and the Regions (SAFNR) tool, Genscape Real-time Power Application, and the University of Tennessee Frequency Monitoring NETWORK (FNET).

This Program is part of WECC's delegation-related accountabilities to NERC and does not in any way 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 discerns patterns and identifies trends that will help build a stronger and more resilient system. Additionally, staff responds to events by providing coordination, assistance, and communication with the RCs, stakeholders, and NERC SAIS personnel. Additionally, SAIS work feeds into Event Analysis capabilities.

### 2020 Key Assumptions

The SAIS Program incorporates the Regional Entity-specific contributing activities as described in the ERO Enterprise Operating Plan, and includes the following additional WECC-specific assumptions.



WECC will:

- Continue using the SAFNR tool and Genscape Real-time Power Application to provide situation awareness capabilities.
- Support NERC and FERC’s efforts for situation awareness of current system conditions.
- Work with stakeholders, government agencies, NERC, and the Electricity Information Sharing and Analysis Center (E-ISAC) to ensure appropriate event information is disseminated to industry entities in a timely manner.
- Ensure data and information sources are tracked and new agreements are in place to maintain SAIS functionality after the RC transition.
- Maximize sharing of operating and system data, within agreed parameters, and insights from Event Analysis, including near-misses, to optimize understanding of reliability issues, promote operational excellence, share best practices and lessons learned in a timely manner, and engage third-party experts to expand capabilities and resources applied to critical reliability issues.
- Collaborate with specific stakeholder groups in the development of lessons learned and recommendations from events and identified risks.

### **2020 Goals and Deliverables**

- Monitor system events, collect information, and coordinate the distribution of timely 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 any critical information.
- Support efforts and work to develop and enhance ways to improve the use of SAFNR and Genscape Real-time Power Application data to further support SAIS.
- Represent the Western Interconnection in reliability 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 Human Performance Conference).
- Promote rapid and appropriate situation awareness information sharing to support critical infrastructure security.



**Resource Requirements/Explanation of Significant Changes***Personnel Expenses*

- Personnel Expenses increase by \$14,000 primarily due to a budgeted three-percent 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 2019 and 2020 budgets.



## Situation Awareness and Infrastructure Security Program Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget					
SITUATION AWARENESS AND INFRASTRUCTURE SECURITY					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ 204,350	\$ 204,350	\$ -	\$ 216,370	\$ 12,020
Penalty Sanctions	5,597	5,597	-	26,268	20,671
<b>Total Statutory Funding</b>	<b>\$ 209,947</b>	<b>\$ 209,947</b>	<b>\$ -</b>	<b>\$ 242,638</b>	<b>\$ 32,691</b>
Membership Fees	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	1,143	2,543	1,400	1,914	771
<b>Total Revenue (A)</b>	<b>\$ 211,090</b>	<b>\$ 212,490</b>	<b>\$ 1,400</b>	<b>\$ 244,552</b>	<b>\$ 33,462</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 100,159	\$ 108,207	\$ 8,048	\$ 111,297	\$ 11,138
Payroll Taxes	7,516	7,063	(453)	8,344	828
Benefits	11,620	18,064	6,444	12,273	653
Retirement Costs	8,274	7,402	(872)	9,683	1,409
<b>Total Personnel Expenses</b>	<b>\$ 127,569</b>	<b>\$ 140,736</b>	<b>\$ 13,167</b>	<b>\$ 141,597</b>	<b>\$ 14,028</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	-	-	-	-	-
Travel	-	-	-	-	-
<b>Total Meeting Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	-	-	-	-	-
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Direct Expenses</b>	<b>\$ 127,569</b>	<b>\$ 140,736</b>	<b>\$ 13,167</b>	<b>\$ 141,597</b>	<b>\$ 14,028</b>
<b>Indirect Expenses</b>	<b>\$ 88,818</b>	<b>\$ 89,453</b>	<b>\$ 635</b>	<b>\$ 94,544</b>	<b>\$ 5,726</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 216,387</b>	<b>\$ 230,189</b>	<b>\$ 13,802</b>	<b>\$ 236,141</b>	<b>\$ 19,754</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ (5,297)</b>	<b>\$ (17,699)</b>	<b>\$ (12,402)</b>	<b>\$ 8,411</b>	<b>\$ 13,708</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ (1,011)</b>	<b>\$ (1,295)</b>	<b>\$ (284)</b>	<b>\$ 498</b>	<b>\$ 1,509</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 215,376</b>	<b>\$ 228,894</b>	<b>\$ 13,518</b>	<b>\$ 236,639</b>	<b>\$ 21,263</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ (4,286)</b>	<b>\$ (16,404)</b>	<b>\$ (12,118)</b>	<b>\$ 7,913</b>	<b>\$ 12,199</b>
FTEs	1.0	1.0	-	1.0	-
HC	-	-	-	-	-

## Corporate Services

Corporate Services (in whole dollars) Direct Expenses and Fixed Assets						
	2019 Budget	2020 Budget	Increase (Decrease)	FTEs 2019 Budget	FTEs 2020 Budget	Increase (Decrease)
Committee and Member Forums	\$ 11,200	\$ 77,350	\$ 66,150	-	-	-
General and Administrative	\$ 5,206,619	\$ 5,364,402	\$ 157,783	17.05	16.50	(0.55)
Legal and Regulatory	\$ 1,323,239	\$ 1,531,728	\$ 208,489	6.00	7.00	1.00
Information Technology	\$ 1,803,654	\$ 1,806,959	\$ 3,305	8.70	8.00	(0.70)
Human Resources	\$ 868,319	\$ 1,232,509	\$ 364,190	3.00	4.00	1.00
Accounting and Finance	\$ 533,568	\$ 489,212	\$ (44,356)	3.25	3.00	(0.25)
<b>Total Corporate Services*</b>	<b>\$ 9,746,599</b>	<b>\$ 10,502,160</b>	<b>\$ 755,561</b>	<b>38.00</b>	<b>38.50</b>	<b>0.50</b>

\*WECC's 2020 Corporate Services budget (expenses plus fixed assets) is \$10,502,160, of which \$570,253 is allocated to non-statutory activities. As a result of the allocation to the non-statutory function, the Corporate Services expenses included in the 2020 statutory budget are \$9,931,907, which is a \$712,152 increase from the 2019 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.

### Methodology 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 discuss and share reliability, compliance, and operating concerns.

### 2020 Key Assumptions

- The Standing Committees meet three times each year.
- In 2020, one meeting will be held off-site.

### Resource Requirements/Explanation of Significant Changes

#### *Personnel Expenses*

- No significant changes.

#### *Meeting Expenses*

- Meetings increase by \$66,000 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 General and Administrative Program provides executive leadership; communications; and administrative support for staff, committees, and members; as well as logistics support of the Salt Lake City office and meeting facilities, and the Vancouver office. In addition, indirect costs such as Office Rent that benefit multiple functional areas are accounted for in this Program.

### 2020 Key Assumptions

- Provide the same level of meetings and meeting support for the Board of Directors and Board Committees in 2020.
- Hold the 2020 Annual Meeting in Lake Las Vegas, Henderson, Nevada.
- Compensate Directors for meeting participation in accordance with the current Board compensation structure.

### 2020 Goals and Deliverables

- Provide excellent executive leadership and strong strategic guidance for the activities undertaken by WECC and ensure that WECC supports the ERO Enterprise Long-Term Strategy and ERO Enterprise Operating Plan.
- Support and coordinate the logistics for the Board and Board Committees.
- Continue to enhance the meetings team and stakeholder services groups to drive efficiencies and effective services.
- Continue to enhance external relations and outreach programs.
- Upgrade the Salt Lake City meeting space, funded by the landlord through a negotiated tenant improvement allowance.

### Resource Requirements/Explanation of Significant Changes

#### *Personnel Expenses*

- Personnel Expenses decrease by \$81,000 primarily due to a budgeted three-percent merit pool, allocation changes, continued refinement of labor float percentages, and the refinement of payroll tax and benefits rates.

#### *Meeting Expenses*

- No significant changes.





*Operating Expenses*

- Consultants & Contracts decrease by a net of \$62,000 primarily due to a reduction in Director training and an increase in Board search fees.
- Office Rent increases by \$275,000 primarily due to the new lease for the Salt Lake City office.
- Office Costs decrease by \$14,000 primarily due to the completion of the WECC rebrand.
- Professional Services increase by \$53,000 due to increases in Director retainers resulting from a 2019 Board compensation study.

*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. The Program also coordinates regulatory affairs and outreach at the federal, state, and regional level.

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.

### 2020 Key Assumptions

- Maintain the scope of current operations and contribute positively to ERO Enterprise activities.
- One FTE is transferred from RAPA due to organizational realignment.

### 2020 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.
- Bolster and expand regulatory affairs activities to:
  - Appropriately inform executive leadership about key national and Western policy and legislative initiatives; and
  - Increase engagement with policymakers and legislators.

### Resource Requirements/Explanation of Significant Changes

#### *Personnel Expenses*

- Personnel Expenses increase by \$203,000 due to one FTE transferred from RAPA, a budgeted three-percent merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

#### *Meeting Expenses*

- No significant changes.



*Operating Expenses*

- No significant changes.

*Fixed Assets*

- No significant changes.



## Information Technology

### Program Scope and Functional Description

The Information Technology (IT) Program provides systems support including: servers, data, email, telephone systems, and internet and Intranet website maintenance. IT develops new technology solutions, using both staff and external service providers. IT provides resources and tools to enable the organization to meet evolving requirements to support activities and responsibilities as directed by NERC and FERC.

### 2020 Key Assumptions

The IT Program incorporates the Regional Entity-specific contributing activities as described in the ERO Enterprise Operating Plan, and includes the following additional WECC-specific assumptions.

- Use consultants as needed instead of increasing headcount.
- Achieve long-term levelized costs by obtaining subscription services for software and infrastructure when practical.
- Replace computer equipment on a four-year refresh cycle, refresh servers every five years, and replace network equipment every seven-to-10 years.
- Support the ERO Enterprise IT Strategy and continue working collaboratively to minimize duplication of effort and investments and improve operational efficiency.
- One FTE is transferred to CMEP due to efficiencies gained.

### 2020 Goals and Deliverables

- Provide data support, analysis, and communication.
- Create centralized databases, automated processes, and tools to organize a growing volume of electronic data.
- Increase security capabilities with additional authentication controls and enhanced threat detection.
- Enhance the capabilities and security controls of mobile devices and remote workers.



**Resource Requirements/Explanation of Significant Changes***Personnel Expenses*

- Personnel Expenses decrease by a net of \$33,000 due to one FTE transferred to CMEP, a budgeted three-percent merit pool, continued refinement of labor float percentages, changes in position levels, and the refinement of payroll tax and benefits rates.

*Meeting Expenses*

- No significant changes.

*Operating Expenses*

- Consultants & Contracts increase by \$18,000 primarily due to a SharePoint upgrade for the wecc.org website.
- Office Costs increase by \$70,000 primarily due to an increase in computer licensing fees and a continued shift to subscription-based services for infrastructure and security initiatives.

*Fixed Assets*

- Fixed Assets decrease by \$55,000 primarily due to the completion of planned 2019 equipment refreshes.



## 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, performance management, succession planning, and employee training and development. HR maintains and supports employee-related systems and ensures compliance with all federal and state requirements.

### 2020 Key Assumptions

- Total headcount remains flat.
- Maintain current benefit levels and negotiate minimal premium increases.
- Minimize skills gaps through training, development, and targeted hiring practices.
- One FTE is transferred from Training and Outreach due to organizational realignment.

### 2020 Goals and Deliverables

- Increase the effectiveness of performance management processes through manager training and development.
- Conduct harassment prevention training for all employees and managers.
- Enhance the scope of succession planning and employee development and training, 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.
- Provide access for all employees to the NERC Learning Management System and develop learning plans for employee training using computer-based training modules and classroom training.

### Resource Requirements/Explanation of Significant Changes

#### *Personnel Expenses*

- Personnel Expenses increase by \$316,000 primarily due to one FTE transferred from Training and Outreach, a budgeted three-percent 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 \$10,000 primarily due to anticipated increases in the numbers of out-of-state job applicants.

*Operating Expenses*

- Consultants & Contracts increase by \$35,000 primarily due to a compensation study.

*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 accounts payable, accounts receivable, budgeting, fixed assets management, banking, cash management, payroll, and financial reporting.

### 2020 Key Assumptions

- Implement secure and reliable cloud-based software.
- Interest rates remain flat.

### 2020 Goals and Deliverables

- Assist departments to 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.

### Resource Requirements/Explanation of Significant Changes

#### *Personnel Expenses*

- Personnel Expenses decrease by \$47,000 primarily due to a budgeted three-percent merit pool, allocation changes, 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 2019 and 2020 budgets.





## Corporate Services Funding Sources and Expenditures

Statement of Activities, Fixed Assets Expenditures, and Change in Working Capital 2019 Budget & Projection, and 2020 Budget					
CORPORATE SERVICES					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
<b>Total Statutory Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Membership Fees	\$ -	\$ -	\$ -	\$ -	\$ -
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	-	-	-	-	-
Interest	-	-	-	-	-
<b>Total Revenue (A)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 4,287,638	\$ 4,287,024	\$ (614)	\$ 4,531,681	\$ 244,043
Payroll Taxes	240,225	220,645	(19,580)	258,057	17,832
Benefits	941,023	935,802	(5,221)	998,019	56,996
Retirement Costs	354,381	378,668	24,287	393,240	38,859
<b>Total Personnel Expenses</b>	<b>\$ 5,823,267</b>	<b>\$ 5,822,139</b>	<b>\$ (1,128)</b>	<b>\$ 6,180,997</b>	<b>\$ 357,730</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 156,100	\$ 159,819	\$ 3,719	\$ 229,000	\$ 72,900
Travel	300,130	306,764	6,634	314,900	14,770
<b>Total Meeting Expenses</b>	<b>\$ 456,230</b>	<b>\$ 466,583</b>	<b>\$ 10,353</b>	<b>\$ 543,900</b>	<b>\$ 87,670</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ 441,000	\$ 339,198	\$ (101,802)	\$ 432,000	\$ (9,000)
Office Rent	972,909	993,850	20,941	1,248,251	275,342
Office Costs	1,022,913	973,944	(48,969)	1,088,222	65,309
Professional Services	908,280	922,108	13,828	953,790	45,510
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 3,345,102</b>	<b>\$ 3,229,100</b>	<b>\$ (116,002)</b>	<b>\$ 3,722,263</b>	<b>\$ 377,161</b>
<b>Total Direct Expenses</b>	<b>\$ 9,624,599</b>	<b>\$ 9,517,822</b>	<b>\$ (106,777)</b>	<b>\$ 10,447,160</b>	<b>\$ 822,561</b>
<b>Indirect Expenses</b>	<b>\$ (9,624,599)</b>	<b>\$ (9,517,822)</b>	<b>\$ 106,777</b>	<b>\$ (10,447,160)</b>	<b>\$ (822,561)</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>					
<b>TOTAL BUDGET (B+C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
FTEs	40.7	38.9	(1.8)	38.5	(2.2)
HC	41.0	39.0	(2.0)	39.0	(2.0)





## Section B

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**Supplemental Financial Information**

## Section B—Supplemental Financial Information

### Reserve Analysis

Table B-1

<b>Working Capital Reserve Analysis 2019-2020</b>	
<b>STATUTORY</b>	
<b>Beginning Working Capital Reserve (Deficit), December 31, 2018</b>	\$ 6,537,757
Plus: 2019 Funding (from Load-Serving Entities (LSE) or designees)	25,869,686
Plus: 2019 Other funding sources	805,648
Less: 2019 Projected expenses & capital expenditures	(26,389,140)
<b>Projected Working Capital Reserve (Deficit), December 31, 2019</b>	<b>\$ 6,823,951</b>
<b>Projected Working Capital Reserve, December 31, 2020<sup>1</sup></b>	<b>\$ 7,752,113</b>
Less: Projected Working Capital Reserve, December 31, 2019	(6,823,951)
<b>Increase(Decrease) in Assessments to Achieve Projected Working Capital Reserve</b>	<b>\$ 928,162</b>
2020 Expenses and Capital Expenditures	\$ 27,756,089
Less: Penalty Sanctions <sup>2</sup>	(2,745,000)
Less: Other Funding Sources	(657,250)
Adjustment to achieve desired Working Capital Reserve	928,162
<b>2020 WECC Assessment</b>	<b>\$ 25,282,000</b>

1 - On June 19, 2019, the WECC Board of Directors approved this reserve level.

2 - Represents collections of Penalty Sanctions from July 1, 2018 through June 30, 2019. See page 50 for full disclosure.

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 19, 2018.



## Breakdown of Statement of Activities

The following detailed schedules are in support of the Statutory Statement of Activities and Capital Expenditures on page 10.

### 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 prior to June 30, 2019, will be used to offset assessments in the 2020 WECC budget.

All penalty monies received on or prior to June 30, 2019, 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 Sanctions Received on or Prior to June 30, 2019	
Date Received	Amount Received
7/11/2018	2,700,000
10/16/2018	45,000
<b>Total Penalties Received</b>	<u><u>2,745,000</u></u>
<b>Penalties Offset to Assessments</b>	<u><u>2,745,000</u></u>



## Supplemental Funding

**Table B-3**

Other Revenue Breakdown By Program (Excludes Assessments & Penalty Sanctions)		Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget
<b>Reliability Standards</b>					
Interest		\$ 3,429	\$ 7,630	\$ 5,742	\$ 2,313
	<b>Total</b>	\$ 3,429	\$ 7,630	\$ 5,742	\$ 2,313
<b>Compliance Monitoring, Enforcement &amp; Org. Registration</b>					
Workshops & Miscellaneous		\$ -	\$ -	\$ -	\$ -
Interest		68,571	157,680	116,746	48,175
	<b>Total</b>	\$ 68,571	\$ 157,680	\$ 116,746	\$ 48,175
<b>Reliability Assessment and Performance Analysis</b>					
Interest		\$ 44,571	\$ 91,556	\$ 72,727	\$ 28,156
	<b>Total</b>	\$ 44,571	\$ 91,556	\$ 72,727	\$ 28,156
<b>Training and Outreach</b>					
Workshops & Miscellaneous		\$ 424,500	\$ 536,150	\$ 457,250	\$ 32,750
Interest		2,286	2,543	2,871	585
	<b>Total</b>	\$ 426,786	\$ 538,693	\$ 460,121	\$ 33,335
<b>Situation Awareness and Infrastructure Security</b>					
Interest		\$ 1,143	\$ 2,543	\$ 1,914	\$ 771
	<b>Total</b>	\$ 1,143	\$ 2,543	\$ 1,914	\$ 771
<b>Corporate Services</b>					
Interest		\$ -	\$ -	\$ -	\$ -
	<b>Total</b>	\$ -	\$ -	\$ -	\$ -
	<b>Total Outside Funding</b>	\$ 544,500	\$ 798,102	\$ 657,250	\$ 112,750

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

WECC anticipates its investments will earn interest of approximately \$200,000 in 2020. 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.



**Training and Outreach**

- Workshops & Miscellaneous revenue increases by \$33,000 due to increases in anticipated attendance at outreach events.

**Situation Awareness and Infrastructure Security**

- No significant changes.

**Corporate Services**

- No significant changes.



## Personnel Expenses

**Table B-4**

Personnel Expenses	Budget 2019		Projection 2019		Budget 2020		Variance 2019 Budget v 2020 Budget		Variance %
<b>Salaries</b>									
Salaries	\$	15,865,019	\$	15,595,071	\$	16,475,075	\$	610,056	3.8%
Employment Agency Fees		-		-		-		-	
Temporary Office Services		-		881		-		-	
<b>Total Salaries</b>	\$	15,865,019	\$	15,595,952	\$	16,475,075	\$	610,056	3.8%
<b>Total Payroll Taxes</b>	\$	1,037,394	\$	955,715	\$	1,074,352	\$	36,958	3.6%
<b>Benefits</b>									
Workers Compensation	\$	14,800	\$	15,990	\$	17,985	\$	3,185	21.5%
Medical Insurance		1,826,239		1,867,474		1,969,722		143,483	7.9%
Life-LTD-STD Insurance		87,974		97,993		99,995		12,021	13.7%
Education		300,704		234,258		217,301		(83,403)	(27.7%)
Relocation		55,992		24,000		50,000		(5,992)	(10.7%)
Other		17,000		19,807		22,004		5,004	29.4%
<b>Total Benefits</b>	\$	2,302,709	\$	2,259,522	\$	2,377,007	\$	74,298	3.2%
<b>Retirement</b>									
Discretionary 401k Contribution	\$	1,311,109	\$	1,397,574	\$	1,431,482	\$	120,373	9.2%
Retirement Administration Fees		-		-		-		-	
<b>Total Retirement</b>	\$	1,311,109	\$	1,397,574	\$	1,431,482	\$	120,373	9.2%
<b>Total Personnel Costs</b>	\$	20,516,231	\$	20,208,763	\$	21,357,916	\$	841,685	4.1%
<b>FTEs</b>		143.0		141.9		143.0		0.0	0.0%
<b>Cost per FTE</b>									
Salaries	\$	110,944	\$	109,908	\$	115,210	\$	4,266	3.8%
Payroll Taxes		7,255		6,735		7,513		258	3.6%
Benefits		16,103		15,923		16,622		520	3.2%
Retirement		9,169		9,849		10,010		842	9.2%
<b>Total Cost per FTE</b>	\$	143,470	\$	142,416	\$	149,356	\$	5,886	4.1%

## Explanation of Significant Variances—2020 Budget versus 2019 Budget

### Salaries

- Salaries increase by a net of \$610,000 primarily due to a budgeted three-percent merit pool, continued refinement of labor float percentages, and changes in position levels.





**Payroll Taxes**

- Payroll Taxes increase by a net of \$37,000 primarily due to increases in salaries.

**Benefits**

- Medical Insurance increases by \$144,000 primarily due to increases in participation and increases in the cost of premiums.
- Life-LTD-STD Insurance increases by \$12,000 primarily due to increases in salaries.
- Education decreases by \$83,000 primarily due to anticipated training and development required based on existing staff skill sets.

**Retirement**

- Discretionary 401(k) Contributions increase by \$120,000 primarily due to increases in salaries and retirement plan participation.



## Meeting Expenses

**Table B-5**

Meeting & Conference Call Expense	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 260	\$ -	\$ -	\$ (260)	(100.0%)
Compliance Monitoring and Enforcement and Organization Registration and Certification	4,910	5,326	1,505	(3,405)	(69.3%)
Reliability Assessment and Performance Analysis	128,110	30,944	77,685	(50,425)	(39.4%)
Training and Outreach	409,173	543,283	405,905	(3,268)	(0.8%)
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	156,100	159,819	229,000	72,900	46.7%
<b>Total Meeting Expenses</b>	<b>\$ 698,553</b>	<b>\$ 739,371</b>	<b>\$ 714,095</b>	<b>\$ 15,542</b>	<b>2.2%</b>

Travel Expense	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Reliability Standards	\$ 18,290	\$ 19,797	\$ 18,250	\$ (40)	(0.2%)
Compliance Monitoring and Enforcement and Organization Registration and Certification	835,205	763,889	812,183	(23,022)	(2.8%)
Reliability Assessment and Performance Analysis	244,640	267,232	245,010	370	0.2%
Training and Outreach	10,603	12,109	11,475	872	8.2%
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	300,130	306,764	314,900	14,770	4.9%
<b>Total Travel Expenses</b>	<b>\$ 1,408,868</b>	<b>\$ 1,369,791</b>	<b>\$ 1,401,818</b>	<b>\$ (7,050)</b>	<b>(0.5%)</b>

## Explanation of Significant Variances—2020 Budget versus 2019 Budget

### Meeting & Conference Call Expense

- RAPA decreases by \$50,000 primarily due to refinement of meeting cost assumptions and anticipated meeting attendance.
- Corporate Services increases by \$73,000 primarily due to one Standing Committee meeting being held off-site.

### Travel Expense

- Compliance decreases by \$23,000 primarily due to planned reductions in travel requirements for support staff.
- Corporate Services increases by \$15,000 primarily due to increases in travel requirements and attendance at off-site meetings.



## Consultants and Contracts

Table B-6

Consultants	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
<b>Consultants</b>					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	-	-	-	-	
Reliability Assessment and Performance Analysis	590,000	632,092	600,000	10,000	1.7%
Training and Outreach	-	6,160	6,160	6,160	
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	441,000	339,198	432,000	(9,000)	(2.0%)
<b>Consultants Total</b>	<b>\$ 1,031,000</b>	<b>\$ 977,450</b>	<b>\$ 1,038,160</b>	<b>\$ 7,160</b>	<b>0.7%</b>
Contracts	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
<b>Contracts</b>					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance Monitoring and Enforcement and Organization Registration and Certification	261,890	84,993	-	(261,890)	(100.0%)
Reliability Assessment and Performance Analysis	-	-	-	-	
Training and Outreach	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Corporate Services	-	-	-	-	
<b>Contracts Total</b>	<b>\$ 261,890</b>	<b>\$ 84,993</b>	<b>\$ -</b>	<b>\$ (261,890)</b>	<b>(100.0%)</b>
<b>Total Consulting and Contracts</b>	<b>\$ 1,292,890</b>	<b>\$ 1,062,443</b>	<b>\$ 1,038,160</b>	<b>\$ (254,730)</b>	<b>(19.7%)</b>

## Explanation of Significant Variances—2020 Budget versus 2019 Budget

### Consultants

- RAPA increases by \$10,000 primarily due to impact studies of the changing resource mix. Studies will relate to the potential impacts on existing Path Ratings and/or RAS effectiveness as the resource mix in the Western Interconnection continues to evolve.

### Contracts

- Compliance decreases by \$262,000 due to the elimination of Compliance contract labor, corresponding knowledge transfer to existing staff, and the addition of one FTE.



## Office Rent

**Table B-7**

Office Rent	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget	Variance %
Office Rent	\$ 953,484	\$ 971,734	\$ 1,223,800	\$ 270,316	28.4%
Utilities	-	-	-	-	0.0%
Maintenance	19,425	22,115	24,451	5,026	25.9%
Security	-	-	-	-	0.0%
<b>Total Office Rent</b>	<b>\$ 972,909</b>	<b>\$ 993,849</b>	<b>\$ 1,248,251</b>	<b>\$ 275,342</b>	<b>28.3%</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Office Rent increases by \$270,000 due to the new lease for the Salt Lake City office.

## Office Costs

**Table B-8**

Office Costs	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Telephone	\$ 57,316	\$ 67,403	\$ 64,400	\$ 7,084	12.4%
Internet	69,252	68,030	67,660	(1,592)	(2.3%)
Office Supplies	129,751	99,221	112,143	(17,608)	(13.6%)
Computer Supplies and Maintenance	850,566	905,500	894,698	44,132	5.2%
Publications & Subscriptions	29,556	35,879	25,390	(4,166)	(14.1%)
Dues and Fees	280,438	216,267	247,720	(32,718)	(11.7%)
Postage	4,520	5,179	2,120	(2,400)	(53.1%)
Express Shipping	3,319	2,622	8,330	5,011	151.0%
Copying	23,837	27,836	27,405	3,568	15.0%
Bank Charges	57,275	53,010	58,546	1,271	2.2%
Taxes	51,849	49,438	48,900	(2,949)	(5.7%)
<b>Total Office Costs</b>	<b>\$ 1,557,679</b>	<b>\$ 1,530,385</b>	<b>\$ 1,557,312</b>	<b>\$ (367)</b>	<b>(0.0%)</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Office Supplies decrease by \$18,000 primarily due to the completion of the stakeholder recognition wall expansion and corporate collateral updates.
- Computer Supplies and Maintenance increases by a net of \$44,000 primarily due to the reduction in webCDMS fees and a continued shift to subscription-based services for infrastructure and security initiatives.
- Dues and Fees decrease by \$33,000 primarily due to the realignment of anticipated needs with historical spending.

## Professional Services

**Table B-9**

Professional Services	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Board Director Fees	\$ 797,500	\$ 797,500	\$ 850,500	\$ 53,000	6.6%
Outside Legal	9,000	17,527	-	(9,000)	(100.0%)
Accounting & Auditing Fees	31,700	31,189	32,250	550	1.7%
Insurance Commercial	70,080	75,893	71,040	960	1.4%
<b>Total Services</b>	<b>\$ 908,280</b>	<b>\$ 922,109</b>	<b>\$ 953,790</b>	<b>\$ 45,510</b>	<b>5.0%</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Board Director Fees increase by \$53,000 due to increases in Director retainers resulting from a 2019 Board compensation study.

## Miscellaneous Expenses

**Table B-10**

Miscellaneous Expenses	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Miscellaneous	\$ -	\$ -	\$ -	\$ -	-
<b>Total Miscellaneous Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Not applicable.

## Other Non-Operating

**Table B-11**

Other Non-Operating Expenses	Budget 2019	Projection 2019	Budget 2020	Variance 2019 Budget v 2020 Budget		Variance %
Interest Expense	\$ -	\$ -	\$ -	\$ -		-
Line of Credit Payment	-	-	-	-		-
Office Relocation	-	-	-	-		-
<b>Total Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Not applicable.



## Fixed Assets

**Table B-12**

Fixed Assets	Budget 2019	Projection 2019	Budget 2020	Variance	
				2019 Budget v 2020 Budget	Variance %
Computer & Software CapEx	\$ 5,000	\$ -	\$ 5,000	\$ -	0.0%
Furniture & Fixtures CapEx	-	-	-	-	
Equipment CapEx	105,000	79,379	50,000	(55,000)	(52.4%)
Leasehold Improvements	12,000	12,000	-	(12,000)	(100.0%)
	<b>\$ 122,000</b>	<b>\$ 91,379</b>	<b>\$ 55,000</b>	<b>\$ (67,000)</b>	<b>(54.9%)</b>

### Explanation of Significant Variances—2020 Budget versus 2019 Budget

- Equipment CapEx decreases by \$55,000 primarily due to the completion of planned 2019 equipment refreshes.
- Leasehold improvements decrease by \$12,000 primarily due to the completion of the WECC rebrand.



## Section C

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**Non-Statutory Program**

## Section C—Non-Statutory Program

<b>Western Renewable Energy Generation Information System</b> (in whole dollars)			
	<b>2019 Budget</b>	<b>2020 Budget</b>	<b>Increase (Decrease)</b>
Total FTEs	6.0	6.0	-
Direct Expenses	\$ 1,248,601	\$ 1,261,282	\$ 12,681
Indirect Expenses	\$ 532,909	\$ 567,267	\$ 34,358
Inc(Dec) in Fixed Assets	\$ (6,065)	\$ 2,986	\$ 9,051
Total Funding Requirement	\$ 352,326	\$ 352,946	\$ 620

### Western Renewable Energy Generation Information System (WREGIS)

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 through a collaborative process between the Western Governors' Association, the Western Regional Air Partnership, and the California Energy Commission (CEC). This process included gathering 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 a Stakeholder Committee consisting of representatives from 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 cross-subsidy 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 coordinate with the software contractor and performs all the administrative tasks including:

- Registering account holders and generation units;
- Training users;
- Auditing generation and other data; and



- Managing the budgeting, billing, and financial reporting.

### **2020 Key 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 and user type.
  - Approximately four percent of revenues are based on size.
  - Approximately 92 percent of revenues are based on usage levels, which can depend on factors such as weather (wind and solar generation levels) and state regulatory policies (retirement, transfers, etc.).
  - Approximately four percent of revenues are attributable to fees for specific, requested functions such as tracking e-Tags.
- Revenues vary from year to year; therefore, the Program maintains non-statutory reserves to fund operations in years when revenues are low, and to fund large, non-recurring expenditures (e.g., major software upgrades).
- Perform six account holder audits.
- Deliver two account holder training sessions.

### **2020 Goals and Key Deliverables**

- Maintain compliance with the participating states', provinces', and voluntary programs.
- Register program participants.
- Maintain program software to ensure optimum performance both in terms of efficiency and ease of use for account holders.
- Refine and improve data collection to ensure high-quality data.
- Keep abreast of possible needs to increase system functionality.

### **Resource Requirements/Explanation of Significant Changes**

#### *Funding Sources (other than ERO Assessments)*

- Membership Fees increase by \$57,000 primarily due to anticipated increases in account holders and certificate volumes.



## Section C—Non-Statutory Program

### *Personnel Expenses*

- Personnel Expenses increase by \$10,000 primarily due to a budgeted three-percent 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.

### *Indirect Expenses*

- Indirect 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 2019 Budget & Projection, and 2020 Budget					
NON-STATUTORY					
	2019 Budget	2019 Projection	Variance 2019 Budget v 2019 Projection Over(Under)	2020 Budget	Variance 2020 Budget v 2019 Budget Inc(Dec)
<b>Revenue</b>					
<b>Statutory Funding</b>					
WECC Assessments	\$ -	\$ -	\$ -	\$ -	\$ -
Penalty Sanctions	-	-	-	-	-
<b>Total Statutory Funding</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Membership Fees	\$ 2,058,996	\$ 2,061,244	\$ 2,248	2,117,181	\$ 58,185
Services & Software	-	-	-	-	-
Workshops & Miscellaneous	1,875	12,144	10,269	-	(1,875)
Interest	66,900	148,330	81,430	67,300	400
<b>Total Revenue (A)</b>	<b>\$ 2,127,771</b>	<b>\$ 2,221,718</b>	<b>\$ 93,947</b>	<b>\$ 2,184,481</b>	<b>\$ 56,710</b>
<b>Expenses</b>					
<b>Personnel Expenses</b>					
Salaries	\$ 477,082	\$ 499,398	\$ 22,316	\$ 493,849	\$ 16,767
Payroll Taxes	32,879	32,987	108	33,957	1,078
Benefits	83,974	60,306	(23,668)	72,769	(11,205)
Retirement Costs	39,420	40,107	687	42,893	3,473
<b>Total Personnel Expenses</b>	<b>\$ 633,355</b>	<b>\$ 632,798</b>	<b>\$ (557)</b>	<b>\$ 643,468</b>	<b>\$ 10,113</b>
<b>Meeting Expenses</b>					
Meetings & Conference Calls	\$ 3,813	\$ 5,620	\$ 1,807	\$ 3,870	\$ 57
Travel	17,265	21,622	4,357	17,400	135
<b>Total Meeting Expenses</b>	<b>\$ 21,078</b>	<b>\$ 27,242</b>	<b>\$ 6,164</b>	<b>\$ 21,270</b>	<b>\$ 192</b>
<b>Operating Expenses, excluding Depreciation</b>					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	594,168	556,412	(37,756)	596,544	2,376
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 594,168</b>	<b>\$ 556,412</b>	<b>\$ (37,756)</b>	<b>\$ 596,544</b>	<b>\$ 2,376</b>
<b>Total Direct Expenses</b>	<b>\$ 1,248,601</b>	<b>\$ 1,216,452</b>	<b>\$ (32,149)</b>	<b>\$ 1,261,282</b>	<b>\$ 12,681</b>
<b>Indirect Expenses</b>	<b>\$ 532,909</b>	<b>\$ 536,716</b>	<b>\$ 3,807</b>	<b>\$ 567,267</b>	<b>\$ 34,358</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 1,781,510</b>	<b>\$ 1,753,168</b>	<b>\$ (28,342)</b>	<b>\$ 1,828,549</b>	<b>\$ 47,039</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 346,261</b>	<b>\$ 468,550</b>	<b>\$ 122,289</b>	<b>\$ 355,932</b>	<b>\$ 9,671</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>					
	\$ (6,065)	\$ (7,769)	\$ (1,704)	\$ 2,986	\$ 9,051
<b>TOTAL BUDGET (=B+C)</b>	<b>\$ 1,775,445</b>	<b>\$ 1,745,399</b>	<b>\$ (30,046)</b>	<b>\$ 1,831,535</b>	<b>\$ 56,090</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)</b>	<b>\$ 352,326</b>	<b>\$ 476,319</b>	<b>\$ 123,993</b>	<b>\$ 352,946</b>	<b>\$ 620</b>
FTEs	6.0	6.0	-	6.0	-
HC	6.0	6.0	-	6.0	-

## 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 2019	Projection 2019	Direct FTEs 2020 Budget	Shared FTEs* 2020 Budget	Total FTEs 2020 Budget	Change from 2019 Budget
<b>NON-STATUTORY</b>						
<b>Operational Programs</b>						
<b>Total FTEs Operational Programs</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>Administrative Programs</b>						
WREGIS	6.0	6.0	6.0	0.0	6.0	0.0
<b>Total FTEs Administrative Programs</b>	6.0	6.0	6.0	0.0	6.0	0.0
<b>Total FTEs</b>	6.0	6.0	6.0	0.0	6.0	0.0

\*A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

## Reserve Analysis

<b>Working Capital Reserve Analysis</b>	
<b>NON-STATUTORY</b>	
<b>Beginning Working Capital Reserve (Deficit), December 31, 2018</b>	\$ 6,452,646
Plus: 2019 Funding	2,221,718
Plus: 2019 Other funding sources	
Less: 2019 Projected expenses & capital expenditures	(1,745,399)
<b>Projected Working Capital Reserve (Deficit), December 31, 2019</b>	<b>\$ 6,928,965</b>
<b>Projected Working Capital Reserve, December 31, 2020</b>	7,281,911
Less: Projected Working Capital Reserve, December 31, 2019	(6,928,965)
<b>2020 Reserve Increase (Decrease)</b>	<b>\$ 352,946</b>







## Section D

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### Additional Financial Information

# Section D—Additional Financial Information

## 2020 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
<b>Revenue</b>											
<b>Statutory Funding</b>											
WECC Assessments	\$ 25,282,000	\$ 25,282,000	\$ -	\$ 25,282,000	\$ 781,127	\$ 14,359,865	\$ 9,603,551	\$ 321,087	\$ 216,370	\$ -	\$ -
Penalty Sanctions	2,745,000	2,745,000	-	2,745,000	78,804	1,602,344	998,182	39,402	26,268	-	-
<b>Total Statutory Funding</b>	<b>\$ 28,027,000</b>	<b>\$ 28,027,000</b>	<b>\$ -</b>	<b>\$ 28,027,000</b>	<b>\$ 859,931</b>	<b>\$ 15,962,209</b>	<b>\$ 10,601,733</b>	<b>\$ 360,489</b>	<b>\$ 242,638</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Non-statutory Funding</b>											
Workshops & Miscellaneous	\$ 457,250	\$ 457,250	\$ -	\$ 457,250	\$ -	\$ -	\$ -	\$ 457,250	\$ -	\$ -	\$ -
Interest	267,300	200,000	67,300	200,000	5,742	116,746	72,727	2,871	1,914	-	67,300
<b>Total Revenue (A)</b>	<b>\$ 30,868,731</b>	<b>\$ 28,684,250</b>	<b>\$ 2,184,481</b>	<b>\$ 28,684,250</b>	<b>\$ 865,673</b>	<b>\$ 16,078,955</b>	<b>\$ 10,674,460</b>	<b>\$ 820,610</b>	<b>\$ 244,552</b>	<b>\$ -</b>	<b>\$ 2,184,481</b>
<b>Expenses</b>											
<b>Personnel Expenses</b>											
Salaries	\$ 16,968,924	\$ 16,475,075	\$ 493,849	\$ 16,475,075	\$ 427,045	\$ 6,889,592	\$ 4,371,606	\$ 143,854	\$ 111,297	\$ 4,531,681	\$ 493,849
Payroll Taxes	1,108,309	1,074,352	33,957	1,074,352	26,752	471,719	299,047	10,433	8,344	258,057	33,957
Benefits	2,449,776	2,377,007	72,769	2,377,007	39,901	783,899	519,073	23,842	12,273	998,019	72,769
Retirement Costs	1,474,375	1,431,482	42,893	1,431,482	37,153	598,756	380,135	12,515	9,683	393,240	42,893
<b>Total Personnel Expenses</b>	<b>\$ 22,001,384</b>	<b>\$ 21,357,916</b>	<b>\$ 643,468</b>	<b>\$ 21,357,916</b>	<b>\$ 530,851</b>	<b>\$ 8,743,966</b>	<b>\$ 5,569,861</b>	<b>\$ 190,644</b>	<b>\$ 141,597</b>	<b>\$ 6,180,997</b>	<b>\$ 643,468</b>
<b>Meeting Expenses</b>											
Meetings & Conference Calls	\$ 717,965	\$ 714,095	\$ 3,870	\$ 714,095	\$ -	\$ 1,505	\$ 77,685	\$ 405,905	\$ -	\$ 229,000	\$ 3,870
Travel	1,419,218	1,401,818	17,400	1,401,818	18,250	812,183	245,010	11,475	-	314,900	17,400
<b>Total Meeting Expenses</b>	<b>\$ 2,137,183</b>	<b>\$ 2,115,913</b>	<b>\$ 21,270</b>	<b>\$ 2,115,913</b>	<b>\$ 18,250</b>	<b>\$ 813,688</b>	<b>\$ 322,695</b>	<b>\$ 417,380</b>	<b>\$ -</b>	<b>\$ 543,900</b>	<b>\$ 21,270</b>
<b>Operating Expenses, excluding Depreciation</b>											
Consultants & Contracts	\$ 1,038,160	\$ 1,038,160	\$ -	\$ 1,038,160	\$ -	\$ -	\$ 600,000	\$ 6,160	\$ -	\$ 432,000	\$ -
Office Rent	1,248,251	1,248,251	-	1,248,251	-	-	-	-	-	1,248,251	-
Office Costs	2,153,856	1,557,312	596,544	1,557,312	3,435	203,448	224,898	37,309	-	1,088,222	596,544
Professional Services	953,790	953,790	-	953,790	-	-	-	-	-	953,790	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 5,394,057</b>	<b>\$ 4,797,513</b>	<b>\$ 596,544</b>	<b>\$ 4,797,513</b>	<b>\$ 3,435</b>	<b>\$ 203,448</b>	<b>\$ 824,898</b>	<b>\$ 43,469</b>	<b>\$ -</b>	<b>\$ 3,722,263</b>	<b>\$ 596,544</b>
<b>Total Direct Expenses</b>	<b>\$ 29,532,624</b>	<b>\$ 28,271,342</b>	<b>\$ 1,261,282</b>	<b>\$ 28,271,342</b>	<b>\$ 552,536</b>	<b>\$ 9,761,102</b>	<b>\$ 6,717,454</b>	<b>\$ 651,493</b>	<b>\$ 141,597</b>	<b>\$ 10,447,160</b>	<b>\$ 1,261,282</b>
<b>Indirect Expenses</b>	<b>\$ (1)</b>	<b>\$ (567,267)</b>	<b>\$ 567,267</b>	<b>\$ (567,267)</b>	<b>\$ 283,633</b>	<b>\$ 5,767,210</b>	<b>\$ 3,592,689</b>	<b>\$ 141,817</b>	<b>\$ 94,544</b>	<b>\$ (10,447,160)</b>	<b>\$ 567,267</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Expenses (B)</b>	<b>\$ 29,532,623</b>	<b>\$ 27,704,075</b>	<b>\$ 1,828,549</b>	<b>\$ 27,704,075</b>	<b>\$ 836,169</b>	<b>\$ 15,528,312</b>	<b>\$ 10,310,143</b>	<b>\$ 793,310</b>	<b>\$ 236,141</b>	<b>\$ -</b>	<b>\$ 1,828,549</b>
<b>Change in Net Assets (=A-B)</b>	<b>\$ 1,336,108</b>	<b>\$ 980,175</b>	<b>\$ 355,932</b>	<b>\$ 980,175</b>	<b>\$ 29,504</b>	<b>\$ 550,643</b>	<b>\$ 364,317</b>	<b>\$ 27,300</b>	<b>\$ 8,411</b>	<b>\$ -</b>	<b>\$ 355,932</b>
<b>Fixed Assets, excluding Right of Use Assets (C)</b>	<b>\$ 55,000</b>	<b>\$ 52,014</b>	<b>\$ 2,986</b>	<b>\$ 52,014</b>	<b>\$ 1,493</b>	<b>\$ 30,362</b>	<b>\$ 18,914</b>	<b>\$ 747</b>	<b>\$ 498</b>	<b>\$ -</b>	<b>\$ 2,986</b>
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 29,587,623</b>	<b>\$ 27,756,089</b>	<b>\$ 1,831,535</b>	<b>\$ 27,756,089</b>	<b>\$ 837,662</b>	<b>\$ 15,558,674</b>	<b>\$ 10,329,057</b>	<b>\$ 794,057</b>	<b>\$ 236,639</b>	<b>\$ -</b>	<b>\$ 1,831,535</b>
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 1,281,108</b>	<b>\$ 928,161</b>	<b>\$ 352,946</b>	<b>\$ 928,161</b>	<b>\$ 26,011</b>	<b>\$ 520,281</b>	<b>\$ 345,403</b>	<b>\$ 26,553</b>	<b>\$ 7,913</b>	<b>\$ -</b>	<b>\$ 352,946</b>
FTEs	149.0	143.0	6.0	143.0	3.0	61.0	38.0	1.5	1.0	38.5	6.0
HC	149.0	143.0	6.0	143.0	3.0	61.0	39.0	1.0	-	39.0	6.0



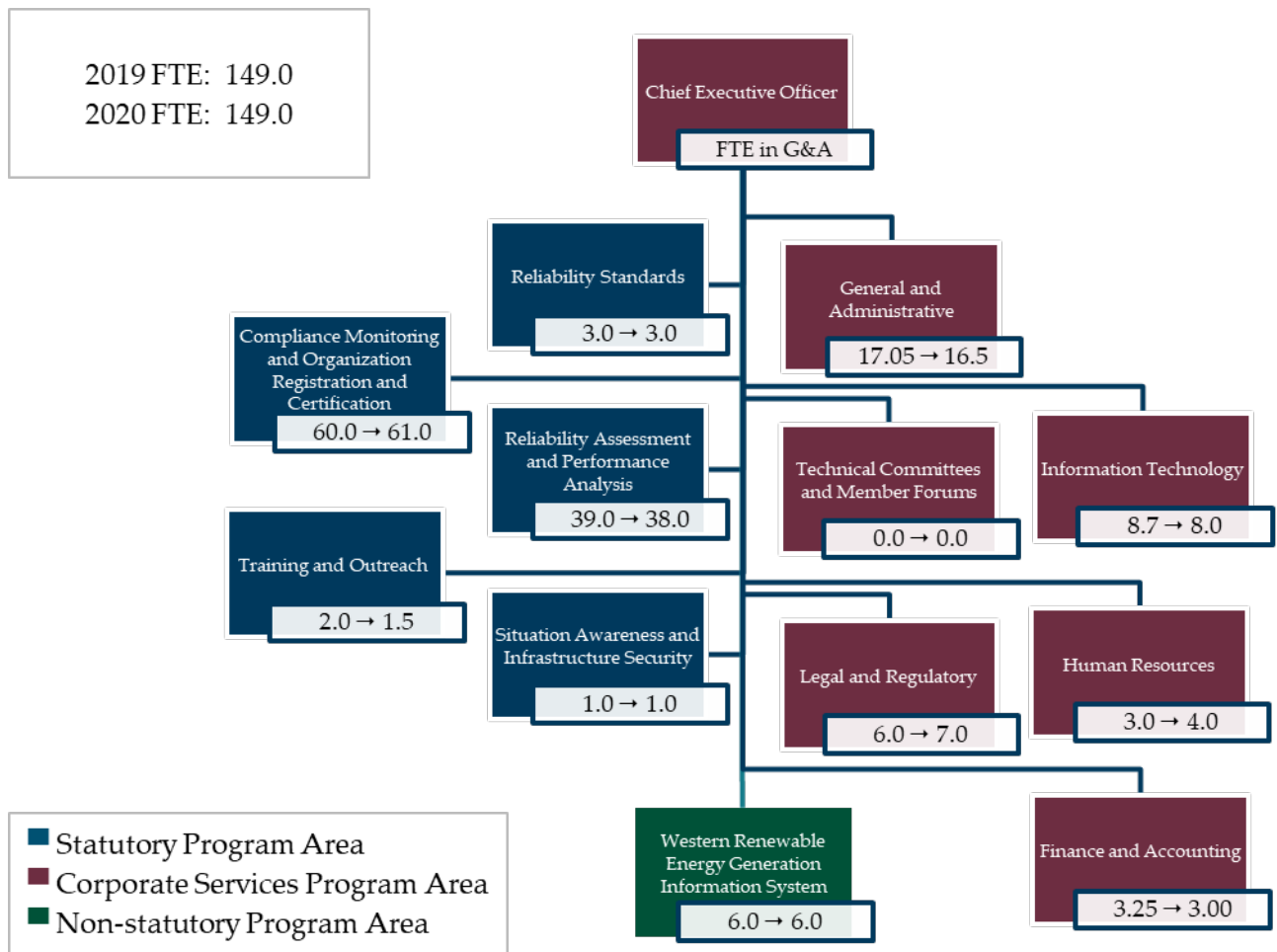
## Statement of Financial Position

<b>Statement of Financial Position</b>			
<b>2018 Audited, 2019 Projection, and 2020 Budget</b>			
<b>STATUTORY and NON-STATUTORY</b>			
	<b>(Per Audit)</b>	<b>Projected</b>	<b>Budget</b>
	<b>31-Dec-18</b>	<b>31-Dec-19</b>	<b>31-Dec-20</b>
<b>ASSETS</b>			
Cash and cash equivalents	\$ 29,343,247	\$ 22,344,588	\$ 22,089,588
Investments	9,698,773	8,400,000	9,681,108
Accounts receivable, net	360,735	1,250,000	1,250,000
Prepaid expenses and other assets	480,695	500,000	500,000
Property and equipment, net	368,135	496,200	551,200
Total Assets	<b>\$ 40,251,585</b>	<b>\$ 32,990,788</b>	<b>\$ 34,071,896</b>
<b>LIABILITIES AND NET ASSETS</b>			
Liabilities			
Accounts payable	\$ 5,133,913	\$ 1,250,000	\$ 1,250,000
Accrued expenses	2,319,155	1,750,000	1,750,000
Deferred revenue	18,518,576	15,400,000	15,400,000
Other liabilities	405,099	900,000	700,000
Total Liabilities	<b>\$ 26,376,743</b>	<b>\$ 19,300,000</b>	<b>\$ 19,100,000</b>
Unrestricted net assets	13,874,842	13,690,788	14,971,896
Total Liabilities and Net Assets	<b>\$ 40,251,585</b>	<b>\$ 32,990,788</b>	<b>\$ 34,071,896</b>



## Appendix A—Organizational Chart

### Changes in Budgeted FTE by Program Area



## Appendix B—2020 Budget & Projected 2021 and 2022 Budgets

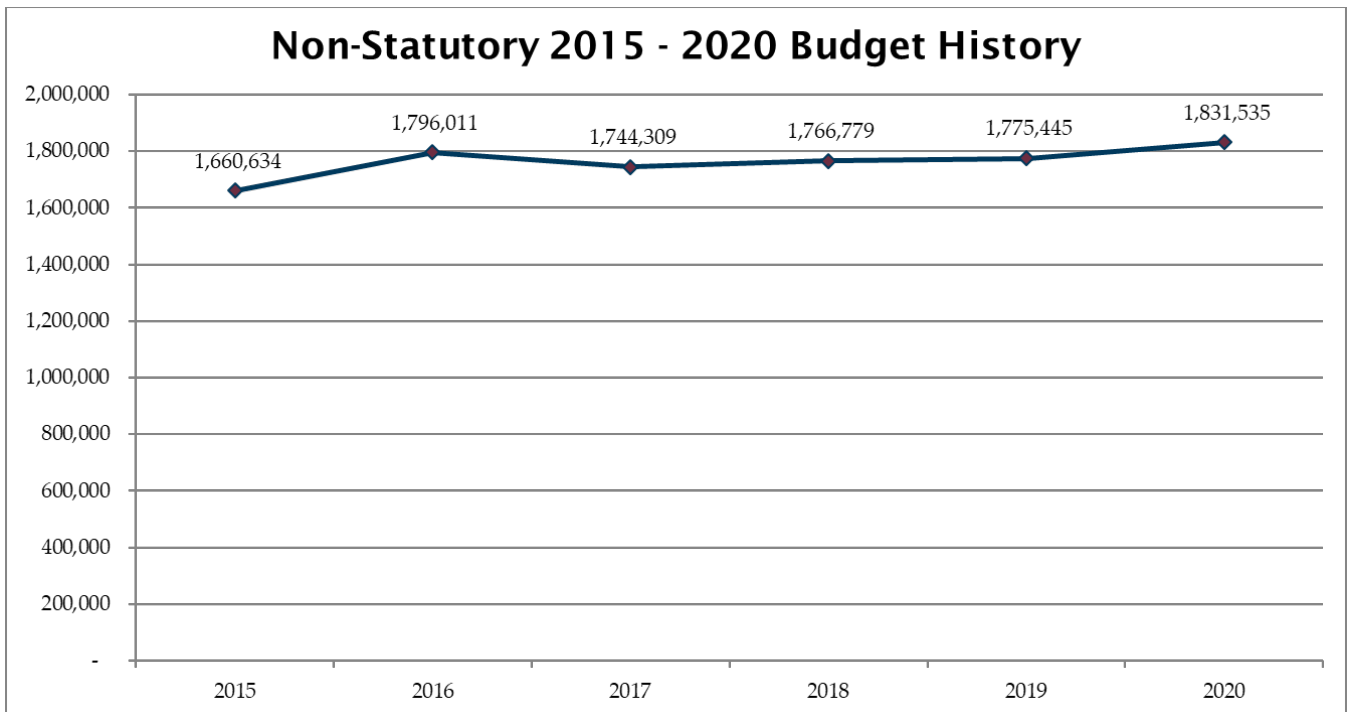
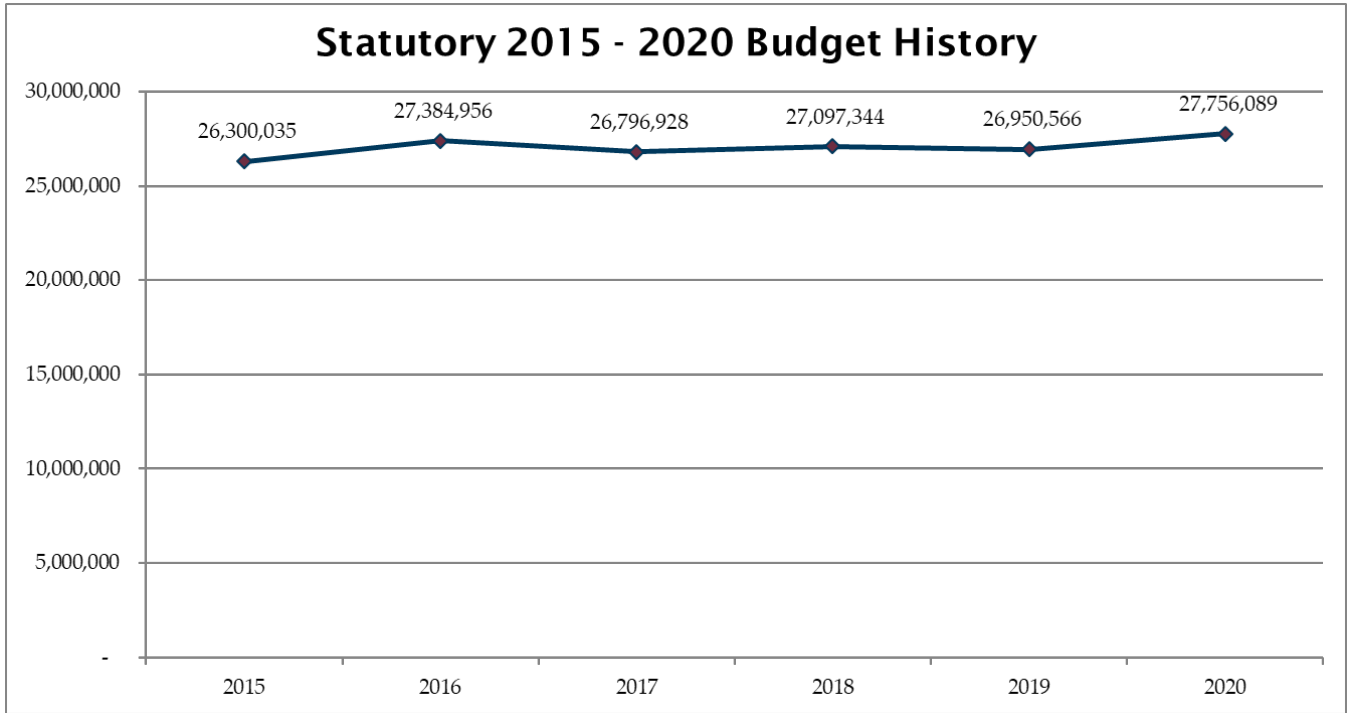
Statement of Activities and Capital Expenditures 2019 Budget & Projected 2020 and 2021 Budgets								
	Statutory				2022 Projection	\$ Change 21 v 22	% Change 21 v 22	
	2020 Budget	2021 Projection	\$ Change 20 v 21	% Change 20 v 21				
<b>Revenue</b>								
<b>Statutory Funding</b>								
WECC Assessments	\$ 25,282,000	\$ 25,787,640	\$ 505,640	2.0%	\$ 26,303,393	\$ 515,753	2.0%	
Penalty Sanctions	2,745,000	-	(2,745,000)	(100.0%)	-	-		
<b>Total Statutory Funding</b>	<b>\$ 28,027,000</b>	<b>\$ 25,787,640</b>	<b>\$ (2,239,360)</b>	<b>(8.0%)</b>	<b>\$ 26,303,393</b>	<b>\$ 515,753</b>	<b>2.0%</b>	
Membership Fees	\$ -	\$ -	\$ -		\$ -	\$ -		
Workshops & Miscellaneous	457,250	457,250	-	0.0%	457,250	-	0.0%	
Interest	200,000	200,000	-	0.0%	200,000	-	0.0%	
<b>Total Revenue (A)</b>	<b>\$ 28,684,250</b>	<b>\$ 26,444,890</b>	<b>\$ (2,239,360)</b>	<b>(7.8%)</b>	<b>\$ 26,960,643</b>	<b>\$ 515,753</b>	<b>2.0%</b>	
<b>Expenses</b>								
<b>Personnel Expenses</b>								
Salaries	\$ 16,475,075	\$ 16,969,327	\$ 494,252	3.0%	\$ 17,478,407	\$ 509,080	3.0%	
Payroll Taxes	1,074,352	1,106,583	32,231	3.0%	1,139,780	33,197	3.0%	
Benefits	2,377,007	2,495,857	118,850	5.0%	2,620,650	124,793	5.0%	
Retirement Costs	1,431,482	1,474,426	42,944	3.0%	1,518,659	44,233	3.0%	
<b>Total Personnel Expenses</b>	<b>\$ 21,357,916</b>	<b>\$ 22,046,194</b>	<b>\$ 688,278</b>	<b>3.2%</b>	<b>\$ 22,757,497</b>	<b>\$ 711,303</b>	<b>3.2%</b>	
<b>Meeting Expenses</b>								
Meetings & Conference Calls	\$ 714,095	\$ 648,095	\$ (66,000)	(9.2%)	\$ 683,095	\$ 35,000	5.4%	
Travel	1,401,818	1,401,818	-	0.0%	1,415,836	14,018	1.0%	
<b>Total Meeting Expenses</b>	<b>\$ 2,115,913</b>	<b>\$ 2,049,913</b>	<b>\$ (66,000)</b>	<b>(3.1%)</b>	<b>\$ 2,098,931</b>	<b>\$ 49,018</b>	<b>2.4%</b>	
<b>Operating Expenses, excluding Depreciation</b>								
Consultants & Contracts	\$ 1,038,160	\$ 978,160	\$ (60,000)	(5.8%)	\$ 928,160	\$ (50,000)	(5.1%)	
Office Rent	1,248,251	1,326,220	77,969	6.2%	1,326,220	-	0.0%	
Office Costs	1,557,312	1,572,885	15,573	1.0%	1,588,614	15,729	1.0%	
Professional Services	953,790	953,790	-	0.0%	1,001,480	47,690	5.0%	
Miscellaneous	-	-	-		-	-		
<b>Total Operating Expenses</b>	<b>\$ 4,797,513</b>	<b>\$ 4,831,055</b>	<b>\$ 33,542</b>	<b>0.7%</b>	<b>\$ 4,844,473</b>	<b>\$ 13,418</b>	<b>0.3%</b>	
<b>Total Direct Expenses</b>	<b>\$ 28,271,342</b>	<b>\$ 28,927,162</b>	<b>\$ 655,820</b>	<b>2.3%</b>	<b>\$ 29,700,901</b>	<b>\$ 773,739</b>	<b>2.7%</b>	
<b>Indirect Expenses</b>	<b>\$ (567,267)</b>	<b>\$ (567,267)</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ (567,267)</b>	<b>\$ -</b>	<b>0.0%</b>	
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ -</b>		
<b>Total Expenses (B)</b>	<b>\$ 27,704,075</b>	<b>\$ 28,359,895</b>	<b>\$ 655,820</b>	<b>2.4%</b>	<b>\$ 29,133,634</b>	<b>\$ 773,739</b>	<b>2.7%</b>	
<b>Change in Assets</b>	<b>\$ 980,175</b>	<b>\$ (1,915,005)</b>	<b>\$ (2,895,180)</b>	<b>(295.4%)</b>	<b>\$ (2,172,991)</b>	<b>\$ (257,987)</b>	<b>13.5%</b>	
<b>Incr(Dec) in Fixed Assets (C)</b>	<b>\$ 52,014</b>	<b>\$ -</b>	<b>\$ (52,014)</b>	<b>(100.0%)</b>	<b>\$ -</b>	<b>\$ -</b>		
<b>TOTAL BUDGET (B+C)</b>	<b>\$ 27,756,089</b>	<b>\$ 28,359,895</b>	<b>\$ 603,806</b>	<b>2.2%</b>	<b>\$ 29,133,634</b>	<b>\$ 773,739</b>	<b>2.7%</b>	
<b>TOTAL CHANGE IN WORKING CAPITAL (A-B-C)</b>	<b>\$ 928,161</b>	<b>\$ (1,915,005)</b>	<b>\$ (2,843,166)</b>	<b>0.0%</b>	<b>\$ (2,172,991)</b>	<b>\$ (257,987)</b>	<b>13.5%</b>	
FTEs	143.0	143.0	-	0.0%	143.0	-	0.0%	
HC	143.0	143.0	-	0.0%	143.0	-	0.0%	



## Appendix C—Adjustment to the Alberta Electric System Operator (AESO) Assessment

Adjustment to the AESO Assessments		
Credit for WECC Compliance Costs		
	2019	2020
	Compliance Budget AESO NEL Allocation	Compliance Budget AESO NEL Allocation
<b>WECC Compliance Costs</b>		
Direct Costs less Direct Revenue	\$ 9,629,471	\$ 9,644,356
Indirect Costs	5,329,085	5,767,210
Fixed Asset Expenditures	(60,653)	30,362
<b>Total Net Costs, including Fixed Assets</b>	<b>\$ 14,897,903</b>	<b>\$ 15,441,928</b>
<b>Net total to be allocated</b>	<b>\$ 14,897,903</b>	<b>\$ 15,441,928</b>
AESO NEL Share (2017 and 2018)	7.173%	7.359%
<b>AESO Proportional Share of Compliance Costs, including Fixed Assets</b>	<b>\$ 1,068,692</b>	<b>\$ 1,136,426</b>
% Credit (58 of 60 FTE for 2019; 57.65 of 61 FTE for 2020)	96.67%	94.51%
<b>AESO Credit for Compliance Costs</b>	<b>\$ 1,033,109</b>	<b>\$ 1,074,088</b>

## Appendix D—Statutory and Non-Statutory Budget History Charts



**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 9**

**WESTERN INTERCONNECTION  
REGIONAL ADVISORY BODY**

**PROPOSED 2020 BUSINESS PLAN AND BUDGET**



# **Western Interconnection Regional Advisory Body**

## **2020 Business Plan and Budget**

**June 28, 2019**

**Approved by  
Appointed Members of the  
Western Interconnection Regional Advisory Body**

1600 Broadway, Suite 1720

Denver, CO 80202

303-573-8910

[www.westernenergyboard.org](http://www.westernenergyboard.org)

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## Introduction

The Western Interconnection Regional Advisory Body (WIRAB) proposed budget for 2020 is \$1,255,200. This amount is \$92,500 (8.0%) higher than the amount in WIRAB's approved 2019 budget. Total proposed FTEs for 2020 remain constant at 5.0. WIRAB's total funding requirement is \$986,900. WIRAB's proposed funding assessment is \$986,300, an increase of \$236,300 (31.5%) from the 2019 funding assessment.<sup>1</sup> WIRAB's proposed funding assessment is allocated \$826,096 (84%) to the U.S. portion, \$144,259 (15%) to the Canadian portion, and \$15,944 (1%) to the Mexican portion of the Western Interconnection. The following table summarizes the WIRAB proposed budget for 2020.

WIRAB - Total Resources (in whole dollars)	2020 Budget	U.S.	Canada	Mexico
Statutory FTEs	5.00			
Non-statutory FTEs				
<b>Total FTEs</b>	5.00			
Statutory Expenses	\$ 1,255,200			
Non-Statutory Expenses				
<b>Total Expenses</b>	\$ 1,255,200			
Statutory Inc(Dec) in Fixed Assets				
Non-Statutory Inc(Dec) in Fixed Assets				
<b>Total Inc(Dec) in Fixed Assets</b>	\$ -			
Statutory Working Capital Requirement	\$ (268,300)			
Non-Statutory Working Capital Requirement	0			
<b>Total Working Capital Requirement</b>	\$ (268,300)			
Total Statutory Funding Requirement	\$ 986,900			
Total Non-Statutory Funding Requirement	\$ -			
<b>Total Funding Requirement</b>	\$ 986,900			
<b>Statutory Funding Assessments</b>	\$ 986,300	\$ 826,096	\$ 144,259	\$ 15,944
<b>Non-Statutory Fees</b>				
NEL	867,599,555	726,676,149	126,897,939	14,025,467
NEL%	100.00%	83.8%	14.6%	1.6%

**Table 1. WIRAB Budget for 2020**

<sup>1</sup> Additional detail regarding the proposed funding assessment is provided in Section B – Supplemental Financial Information. Specifically, Section B describes the need to increase WIRAB's 2020 funding by 31% over 2019 funding in order to stabilize statutory assessments while reducing its surplus financial reserves over several budget cycles.

## Organizational Overview

The Federal Energy Regulatory Commission (FERC or Commission) created the Western Interconnection Regional Advisory Body (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 indicated an interest in inviting 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 FERC, the North American Electric Reliability Corporation (NERC) and the Regional Entity (i.e., WECC) on matters of electric grid reliability.

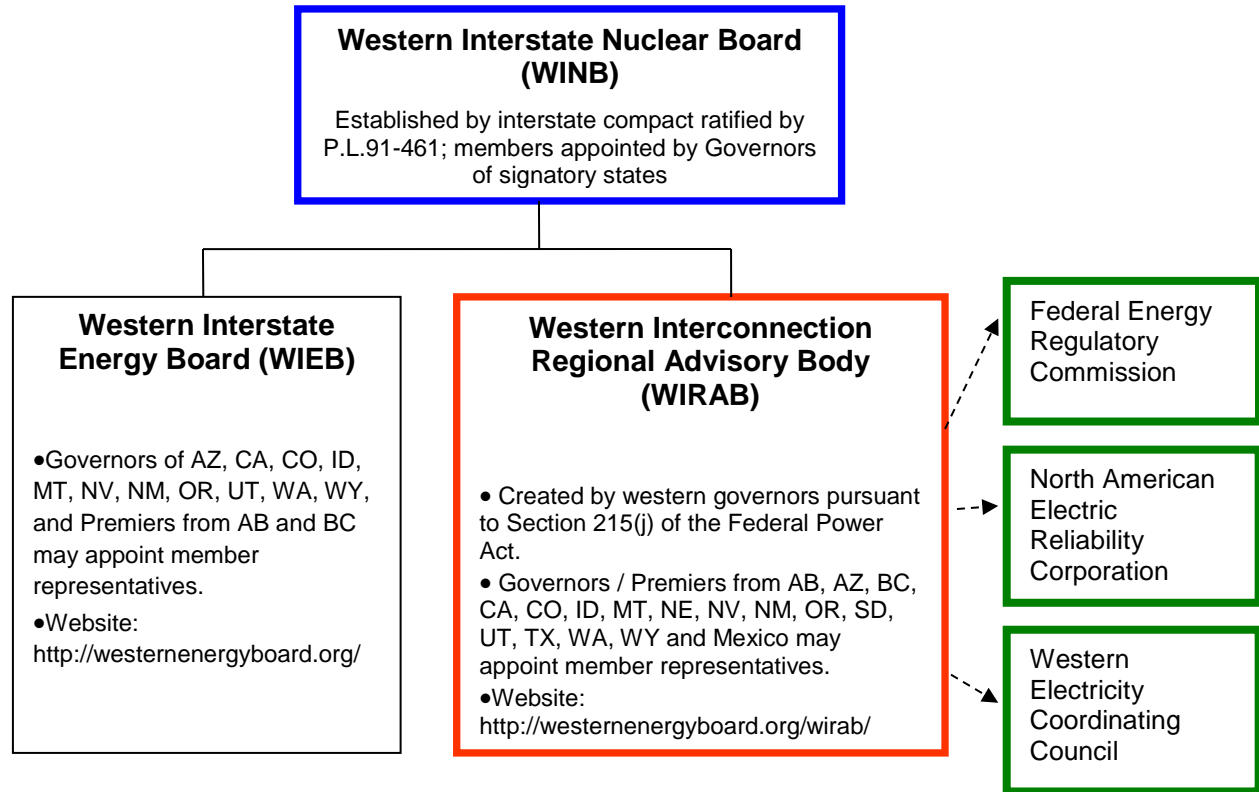
In July 2006, FERC issued an order granting the Governors' petition to establish WIRAB.<sup>2</sup> In FERC's order, the Commission determined that WIRAB should receive funding for its Section 215(j) activities and directed WIRAB to annually develop a budget and related information for submission through 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.<sup>3</sup> The Commission 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.

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<sup>2</sup> 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.

<sup>3</sup> 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 Mexico are eligible to appoint members to WIRAB. Member representatives of WIRAB are appointees of the Governors and Premiers, or representative-designated alternates. Below is the list of current WIRAB member representatives:

WIRAB Member Representatives		
Alberta	Christine Lazaruk	Executive Director, Strategy and Integration, Alberta Energy
Arizona	Brian Goretzki	Chief, Bureau of Radiation Control, Arizona Department of Health Services
British Columbia	Les MacLaren	Assistant Deputy Minister, Ministry of Energy, Mines and Petroleum Resources
California	Janea Scott	Commissioner, California Energy Commission
Colorado	Frances Koncilja	Commissioner, Colorado Public Utilities Commission
Idaho	Kristine Raper	Commissioner, Idaho Public Utilities Commission
Montana	Dan Lloyd	Section Supervisor, Montana Department of Environmental Quality
Nebraska	Tim Texel	Executive Director, Nebraska Power Review Board
Nevada	David Bobzien	Director, Nevada Governor's Office of Energy
New Mexico	Sarah Cottrell Propst	Cabinet Secretary, New Mexico Energy, Minerals and Natural Resources Department
Oregon	Janine Benner	Director, Oregon Department of Energy
South Dakota	Greg Rislov	Commission Advisor, South Dakota Public Utility Commission
Utah	Jordan White	Commissioner, Utah Public Service Commission
Washington	Elizabeth Osborne	Senior Energy Policy Analyst, Washington State Energy Office
Wyoming	Kara Fornstrom	Chair, Wyoming Public Service Commission

**Figure 2. WIRAB Membership List**

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

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 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 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.

## **2020 Strategic Priorities and Initiatives**

The resource mix of the Western power system is rapidly changing. Environmental regulations (including those to reduce regional haze and mercury emissions), 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). These changes to the generation resource mix will present new reliability challenges and opportunities for the Western Interconnection.

Grid modernization efforts also present new reliability challenges and opportunities for the West. Efforts to increase electrification of energy end uses, such as transportation and space and water heating, and increased reliance on distributed energy resources (DER) is creating a need for better coordination between Bulk Power System (BPS) operators and distribution system operators as well as a greater need for implementation, research, and development of new technologies and operational tools that can be used to improve system reliability throughout the West. Grid modernization also necessitates an increasing focus on cyber security, grid resilience, and physical hardening of electric grid infrastructure. 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 is also undergoing significant change, creating new 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 California ISO is working to offer day ahead market services to EIM participants. The Southwest Power Pool (SPP) is also offering market services, including energy imbalance market services, 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).

The fragmentation of Reliability Coordinator (RC) responsibilities across the Western Interconnection also raises questions about ongoing reliable operations of the BPS. In 2020, Peak Reliability will no longer provide RC services for the Western Interconnection. The Alberta Electric System Operator (AESO) will continue to provide RC services in Alberta, BC Hydro will provide RC services in British Columbia, and the California ISO's RC West, SPP, and GridForce will provide RC services to BAs and TOPs throughout the U.S. portion of the Western Interconnection. These changes raise concerns about shared responsibilities for coordinated RC operations across RC boundaries and seams.

In response to these on-going changes in the Western Interconnection, WIRAB has identified four strategic initiatives that it will pursue in 2020:

**Initiative 1: Encourage WECC to improve its assessment of long-term resource adequacy to ensure that state and provincial regulators, FERC, and NERC have access to accurate, consistent, and timely information to inform capacity expansion decisions in the West.**

In the Western Interconnection, determinations of resource adequacy and capacity expansion are primarily the responsibility of the regulatory commissions of 14 western states and two Canadian provinces. Regulators need access to accurate, consistent, and timely information on long-term resource adequacy (i.e., over a 5- to 10-year planning horizon) to determine whether the power system will have sufficient generation resources available to meet future loads and to inform near-term decisions about capacity expansion. Overbuilding of generation capacity could encumber customers with unnecessary costs and result in stranded assets. Underbuilding of



generation capacity, on the other hand, could cause an increase in electricity costs, interfere with utilities' ability to serve load, and create risks to reliability.

A robust assessment of long-term resource adequacy is essential to informing decisions about capacity expansion in the West. However, questions of resource adequacy are complicated by a number of factors, including a changing resource mix and an increasing reliance on short-term market purchases and “front-office transactions” (FOTs). Economic and environmental considerations are driving early retirements of traditional baseload units, incentivizing replacement with variable generation resources, and increasingly contributing to ongoing changes in the Western resource mix. Despite these replacements, capacity within the region is declining and some utilities are looking to rely upon short-term market purchases and FOTs to address future capacity shortages. FOTs are anonymized market transactions for capacity that utilities, regulators, and other entities cannot trace to a specific physical generator. Therefore, it is uncertain whether multiple utilities may be relying upon the same surplus generating capacity to “guarantee” their ability to serve load. The U.S. Government Accountability Office has pointed to a lack of data on capacity commitments as a barrier to ensuring resource adequacy in regions without capacity markets.<sup>4</sup> If future surplus capacity is insufficient or unavailable, utilities relying on short-term market purchases or FOTs to serve load risk not having affordable or sufficient capacity available.

Resource adequacy assessments are important to informing capacity expansion decisions and to ensuring that utilities will be able to meet all future end-use electricity consumer loads under a wide range of conditions. As the Regional Entity for the Western Interconnection, WECC is well-positioned to use its best judgment and professional expertise to perform quality, independent, and robust assessments for various regions in the West. In 2020, WIRAB will encourage WECC to improve its assessment of long-term resource adequacy to ensure that state and provincial regulators, FERC, and NERC have access to accurate, consistent, and timely information to inform their decisions on resource adequacy and capacity expansion.

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<sup>4</sup> GAO. *Electricity Markets: Four Regions Use Capacity Markets to Help Ensure Adequate Resources, but FERC Has Not Fully Assessed Their Performance*. GAO-18-131. (December 2017). <https://www.gao.gov/assets/690/689293.pdf>

The goals of this initiative are to:

- Improve collection of data on physical capacity and utility reliance on short-term market purchases and FOTs within the Western Interconnection.
- Produce robust and independent assessments of long-term resource adequacy.
- Disseminate findings to regulators, policymakers, industry and other stakeholders in the West.

The actions that WIRAB staff will take to achieve these goals include:

- Convening stakeholders to discuss technical and institutional opportunities to collect data on physical capacity and utility reliance on short-term market purchases and FOTs within the Western Interconnection.
- Participating directly with the WECC Reliability Assessment Committee (RAC) to conduct robust and independent long-term resource adequacy assessments and to ensure that sufficient dispatchable generation is available to meet future loads.
- Assisting WECC to disseminate findings to state regulators and policymakers, industry, and other stakeholders in the West.

**Initiative 2: Encourage WECC to study and publish findings on the interrelationship between distributed energy resources and the reliability of the Bulk-Power System in the West.**

Recent events in the West have demonstrated the potential for distributed energy resources to impact the BPS. During the 2018 Angeles Forest and Palmdale Roost disturbance events in Southern California, the California Independent System Operator (ISO) witnessed a noticeable increase in net load following faults on the BPS, indicating that a disturbance on the BPS can impact distributed resources behind the customer meters.<sup>5</sup> Under a three-year WIEB project focused on mitigating or removing barriers to

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<sup>5</sup> NERC and WECC Staff. *April and May 2018 Fault Induced Solar Photovoltaic Resource Interruption Disturbances Report*. (January 2019).

the deployment of distributed solar photovoltaic (PV) generation in the West, the National Renewable Energy Laboratory (NREL) conducted research, modeling this phenomenon in a round-trip study from the BPS to the distribution system and back to the BPS. The research found that transmission-level faults may cause adverse voltages at inverters connecting distributed energy resources to the grid, which may cause the resources to trip offline, further impacting the BPS.

Generation is becoming more distributed. Like distributed solar PV, the cost of battery technology is enabling electric vehicles and behind-the-meter storage to be adopted at an ever-increasing rate. The distribution system is becoming bi-directional, and BPS planners cannot sit back and assume that distribution-level analysis will interact with the BPS in a well-defined and predictable manner.

In 2020, WIRAB will encourage WECC to study and publish findings on the interrelationship between distributed energy resources, including solar PV, behind-the-meter storage, and electric vehicles, and the reliability of the BPS in the West.

The goals of this initiative are to:

- Share lessons learned and modeling techniques used by NREL to conduct its assessment of reliability concerns associated with distributed solar PV systems with the WECC RAC.
- Expand modeling techniques to assess reliability implications associated with other distributed energy resources including battery storage and electric vehicles.
- Disseminate findings on the interrelationship between distributed energy resources and the BPS to regulators, policymakers, industry, and other stakeholders in the West.
- Improve the understanding around DER and the impacts they have on the operational and planning performance at the BPS.

The actions that WIRAB staff will take to achieve these goals include:

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[https://www.nerc.com/pa/rrm/ea/April\\_May\\_2018\\_Fault\\_Induced\\_Solar\\_PV\\_Resource\\_Int/April\\_May\\_2018\\_Solar\\_PV\\_Disturbance\\_Report.pdf](https://www.nerc.com/pa/rrm/ea/April_May_2018_Fault_Induced_Solar_PV_Resource_Int/April_May_2018_Solar_PV_Disturbance_Report.pdf)

- Working with WECC's RAC to conduct round trip analysis between the BPS and distribution system to determine scenarios where there is a significant risk to regional and interconnection-wide reliability.
- Helping WECC identify the type and periodicity of information needed from DERs to ensure the aggregate technical specification of generation connected to local distribution grids are known to planners and operators.
- Monitoring and reviewing efforts to identify potential gaps in, and to provide necessary clarification for, NERC Reliability Standards that are related to the control and performance of inverter-based resources operating under abnormal grid conditions (e.g., PRC-024-2: *Generator Frequency and Voltage Protection Relay Settings*).<sup>6</sup>
- Monitoring and participating in NERC's Inverter-Based Resource Performance Task Force to better inform WIRAB's engagement at WECC.
- Monitoring and participating in the NERC System Planning Impacts from Distributed Energy Resources Working Group to better inform WIRAB's engagement at WECC.

**Initiative 3: Encourage western Reliability Coordinators to adopt a set of consistent metrics to measure performance, to identify best practices, and to strive for exceptional reliability in the West.**

Since 2014, Peak Reliability (Peak) has served as the RC for most of the Western Interconnection, maintaining a system-wide view of the bulk power system and working to ensure reliability within all or parts of fourteen western states, British Columbia, and the northern reaches of Baja California, Mexico. By 2020, as many as four other entities will be responsible for providing the RC function within this same footprint, while the AESO will continue to provide RC services in the province of Alberta.

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<sup>6</sup> NERC Inverter-Based Resource Performance Task Force. *PRC-024-2 Gaps Whitepaper*. NERC (Feb. 2019).

[https://www.nerc.com/comm/PC/InverterBased%20Resource%20Performance%20Task%20Force%20IRPT/NERC\\_IRPTF\\_PRC-024-2\\_Gaps\\_Whitepaper\\_FINAL\\_CLEAN.pdf](https://www.nerc.com/comm/PC/InverterBased%20Resource%20Performance%20Task%20Force%20IRPT/NERC_IRPTF_PRC-024-2_Gaps_Whitepaper_FINAL_CLEAN.pdf)

This transition has triggered concerns that reliability performance could potentially deteriorate.

In its efforts to improve system-wide reliability, Peak invested a significant amount of time and resources to develop and improve a set of effective RC performance metrics, which measured Peak's performance of the RC function and the quality of information being provided by BAs and TOPs. Peak's effort affected behavioral change within the Western Interconnection, advanced the operational performance of the RC, BAs, and TOPs, and significantly improved the overall level of reliability in the West.

In 2020, WIRAB will encourage all western RCs to adopt a similar set of performance metrics, conduct transparent evaluations of operational performance, and identify best practices in an effort to maintain or improve the overall level of reliability in the West. Use of a consistent set of performance metrics across all RCs in the West would allow entities to evaluate and demonstrate whether system-wide reliability has been maintained or improved over time. This set of performance metrics could also be used to inform and incentivize the implementation of best practices.

The goals of this initiative are to:

- Develop a set of consistent metrics to measure and track RC performance in the West.
- Maintain or improve the overall level of reliability in a new RC environment.
- Identify and disseminate best practices for RC service providers in the West.

The actions that WIRAB staff will take to achieve these goals include:

- Engaging with RCs to understand the current performance evaluation framework.
- Encouraging RCs to develop a consistent set of RC performance metrics.
- Encouraging RCs to identify and share best practices with each another.
- Working with WECC's Event Analysis program to identify potential power system events that produce unique lessons learned to be shared with all RCs.
- Encouraging WECC to develop and improve real-time indicators of interconnection health.

- Working with WECC to disseminate findings to state regulators and policymakers, industry, and other stakeholders in the West.

#### **Initiative 4: Assist WECC in assessing the reliability benefits and risks associated with wholesale electricity market expansion in the West.**

The structure of power markets in the West continues to undergo significant change, creating new reliability challenges and opportunities for the Western Interconnection. The California ISO continues to expand participation in its EIM; expanding to include entities in ten western states and British Columbia's PowerEx. The CAISO is also discussing the potential of extending day-ahead services to EIM participants in addition to exploring day-ahead enhancements to improve flexibility and the unit commitment process. The SPP has announced that it is also considering the development of an energy imbalance market to serve the Western Interconnection and called on utilities and other stakeholders to join in its market design and implementation.

In 2013, FERC staff released a whitepaper titled "Qualitative Assessment of Potential Reliability Benefits from a Western Energy Imbalance Market," which analyzed the reliability benefits of the then-proposed EIM.<sup>7</sup> Now, as the CAISO-EIM has been a success and continues to grow, and as further market expansion continues in the West, WECC's Market Interface Committee (MIC) has begun a project to qualitatively assess the potential reliability benefits and risks of the expanding wholesale markets.

In 2020, WIRAB will assist WECC in assessing and disseminating findings of the reliability benefits and risks associated with wholesale electricity market expansion in the West, in an effort to improve the understanding of markets and potential impacts to reliability.

The goals of this initiative are to:

- Develop a report on the reliability benefits and risks of expanding wholesale markets in the West.

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<sup>7</sup> FERC Staff. *Qualitative Assessment of Potential Reliability Benefits from a Western Energy Imbalance Market*. (February 2013). <https://www.westerneim.com/Documents/QualitativeAssessment-PotentialReliabilityBenefits-WesternEnergyImbalanceMarket.pdf>

- Disseminate findings to industry, regulators, policymakers, and stakeholders in the West.
- Improve the understanding around markets and the impacts wholesale markets have on operational performance and reliability.

The actions that WIRAB staff will take to achieve these goals include:

- Participating directly with the WECC MIC to conduct research and develop a report on the reliability benefits and risks of expanding wholesale markets in the West.
- Encouraging the WECC Board of Directors to discuss the findings of the report at an open Board meeting.
- Encouraging WECC to disseminate the findings to the industry and encourage follow-up assessments from stakeholder input.
- Assisting WECC to disseminate the findings at a WIRAB meeting and encourage feedback from regulators and policymakers in the West.

## **2020 Budget and Assessment Impacts**

The WIRAB proposed budget for 2020 is \$1,255,200. This amount is \$92,500 (8.0%) higher than the amount in WIRAB's approved budget for 2019. Total proposed FTEs for 2020 are 5.0. WIRAB's total funding requirement is \$986,900. WIRAB's proposed funding assessment is \$986,300, an increase of \$236,300 (31.3%) from the 2019 funding assessment.

### **Personnel and Indirect Expenses**

Personnel expenses increase from \$436,500 in the 2019 Budget to \$478,300 (9.6%) in the 2020 Budget due to personnel changes and cost-of-living and merit-based salary increases. 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 increases from 101% of direct labor costs in the

2019 Budget to 111% in the 2020 Budget. The increase is due to increased expenses for office rent, medical insurance, employee retirement, and other office costs. Table 2 shows personnel and indirect expenses per FTE for the approved 2019 Budget and the proposed 2020 Budget.

WIRAB - Personnel and Indirect Expense Analysis 2019-2020						
STATUTORY						
	Budget 2019	Projection 2019	Budget 2020	Variance 2020 Budget v 2019 Budget	Variance %	
Salary Expense	\$ 436,500	\$ 446,000	\$ 478,300	\$ 41,800	9.6%	
FTEs	5.00	5.00	5.00	-	0.0%	
Cost per FTE	\$ 87,300	\$ 89,200	\$ 95,660	\$ 8,360	9.6%	
Indirect Rate	101.3%	105.0%	111.7%			
Indirect Expense	\$ 442,200	\$ 468,300	\$ 534,100	\$ 91,900	20.8%	
FTEs	5.00	5.00	5.00	-	0.0%	
Cost per FTE	\$ 88,440	\$ 93,660	\$ 106,820	\$ 18,380	20.8%	

**Table 2. Personnel and Indirect Expense Analysis, 2019-2020.**

### Meeting Expense

Meeting costs decrease by \$27,900 to \$52,900. 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 meetings. WIRAB also conducts monthly conference calls to update members on current activities and to develop positions on reliability issues in the Western Interconnection. Conference call costs remain constant at \$3,200.

### Travel Expense

Travel costs decrease by \$13,300 to \$86,700. WIRAB member travel to biannual meetings and reliability conferences accounts for \$30,200. WIRAB staff travel to attend



meetings of WIRAB, WECC and NERC accounts for \$56,500. Hotel and travel costs are based on experience from the last year.

### **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 2019. This expertise will help WIRAB to prepare and provide technically-sound advice to be submitted to FERC, NERC, and WECC as authorized under Section 215(j).

### **Budget Comparison**

Table 3 shows the 2019 Budget and 2019 Projection compared to the 2020 Budget.

WIRAB - Statement of Activities and Change in Working Capital 2019 Budget & Projection, and 2020 Budget							
STATUTORY							
	2019 Budget	2019 Projection	Variance 2019 Projection v 2019 Budget		2020 Budget	Variance 2020 Budget v 2019 Budget	
			Over(Under)	% Change		Over(Under)	% Change
<b>Funding</b>							
<b>WIRAB Funding</b>							
Assessments	\$ 750,000	\$ 750,000	\$ -	0.0%	\$ 986,300	\$ 236,300	31.5%
Penalty Sanctions	-	-	-	-	-	-	-
<b>Total WIRAB Funding</b>	<b>\$ 750,000</b>	<b>\$ 750,000</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ 986,300</b>	<b>\$ 236,300</b>	<b>31.5%</b>
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	600	600	\$ -	0.0%	600	\$ -	0.0%
Miscellaneous	-	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 750,600</b>	<b>\$ 750,600</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ 986,900</b>	<b>\$ 236,300</b>	<b>31.5%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	436,500	446,000	9,500	2.2%	478,300	\$ 41,800	9.6%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
<b>Total Personnel Expenses</b>	<b>\$ 436,500</b>	<b>\$ 446,000</b>	<b>\$ 9,500</b>	<b>2.2%</b>	<b>\$ 478,300</b>	<b>\$ 41,800</b>	<b>9.6%</b>
<b>Meeting Expenses</b>							
WIRAB Meetings	\$ 80,800	\$ 65,000	\$ (15,800)	-19.6%	\$ 52,900	\$ (27,900)	-34.5%
State Travel	28,200	32,000	\$ 3,800	13.5%	30,200	\$ 2,000	7.1%
Staff Travel	71,800	60,000	\$ (11,800)	-16.4%	56,500	\$ (15,300)	-21.3%
Conference Calls	3,200	3,200	\$ -	0.0%	3,200	\$ -	0.0%
<b>Total Meeting Expenses</b>	<b>\$ 184,000</b>	<b>\$ 160,200</b>	<b>\$ (23,800)</b>	<b>-12.9%</b>	<b>\$ 142,800</b>	<b>\$ (41,200)</b>	<b>-22.4%</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 100,000	\$ 75,000	\$ (25,000)	-25.0%	\$ 100,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 100,000</b>	<b>\$ 75,000</b>	<b>\$ (25,000)</b>	<b>-25.0%</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Total Direct Expenses</b>	<b>\$ 720,500</b>	<b>\$ 681,200</b>	<b>\$ (39,300)</b>	<b>-5.5%</b>	<b>\$ 721,100</b>	<b>\$ 600</b>	<b>0.1%</b>
<b>Indirect Expenses</b>	<b>\$ 442,200</b>	<b>\$ 468,300</b>	<b>\$ 26,100</b>	<b>5.9%</b>	<b>\$ 534,100</b>	<b>\$ 91,900</b>	<b>20.8%</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>TOTAL BUDGET (B)</b>	<b>\$ 1,162,700</b>	<b>\$ 1,149,500</b>	<b>\$ (13,200)</b>	<b>-1.1%</b>	<b>\$ 1,255,200</b>	<b>\$ 92,500</b>	<b>8.0%</b>
<b>CHANGE IN WORKING CAPITAL (=A-B)<sup>1</sup></b>	<b>\$ (412,100)</b>	<b>\$ (398,900)</b>	<b>\$ 13,200</b>	<b>-</b>	<b>\$ (268,300)</b>	<b>\$ 143,800</b>	<b>-</b>
<b>FTEs</b>	<b>5.00</b>	<b>5.00</b>	<b>-</b>	<b>0.0%</b>	<b>5.00</b>	<b>-</b>	<b>0.0%</b>

<sup>1</sup> Fixed Asset included in Indirect Expenses.

**Table 3. Budget Comparison, 2019 to 2020.**

## Statutory Assessments

WIRAB's proposed funding assessment of \$986,300 is allocated \$826,096 (84%) to the U.S. portion, \$144,259 (15%) to the Canadian portion, and \$15,944 (1%) to the Mexican portion of the Western Interconnection.

## Key Assumptions

The WIRAB 2020 Business Plan and Budget is based on the following assumptions:

- There will be no significant expansion of FERC, NERC, or WECC responsibilities as a result of legislation or administrative actions.
- WIRAB will no longer provide advice to Peak Reliability and instead will monitor reliability coordination activities at the California ISO's RC West, SPP, GridForce, the AESO, and BC Hydro.
- WIRAB will hold two in-person meetings in 2020.
- 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 FERC in its offices.
- WIRAB will monitor all FERC business meetings.
- WIRAB will attend FERC technical conferences on reliability issues.

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## **Section A – Statutory Activities**

### 2020 Business Plan and Budget

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## Section A – Statutory Activities

WIRAB's advice to 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 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 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 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 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 FERC on the governance, strategic direction, budget, and fees of WECC. The WIRAB staff engages with, and attends meetings of, the WECC Board of Directors, standing committees, staff, WECC's MAC, and MAC work groups to monitor developments related to WECC's organizational governance, strategic direction, and budget. This engagement is necessary 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 webinars to provide 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 and to review and develop WIRAB's written advice and guidance to the WECC Board of Directors. 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. WIRAB and the WIRAB staff will continue to engage with WECC and to provide advice and recommendations to the organization as necessary.

## **Emerging Trends and System Risks**

WIRAB staff engage in the following on-going 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 topics need to be discussed in open and transparent forums that bring together utility operators who deal with these types of issues on a day-to-day basis and thought leaders with a diverse set of expertise. It is important to share lessons learned and to promote best practices to ensure that system operators have access to the tools and knowledge available and 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 Operating Committee and MIC meetings, monitoring reliability coordination at the California ISO's RC West, SPP, GridForce, AESO, and BC Hydro, and monitoring reliability activities at other forums outside of WECC and the Western Interconnection's RCs. The WIRAB staff also provides leadership by conducting periodic outreach webinars and developing panel sessions for WIRAB's in-person meetings that are designed to promote discussions among Western regulators, policy makers, and other stakeholders regarding emerging trends and risks associated with system events.

### **Distributed Solar PV Generation Resources:**

By 2026, distributed solar PV nameplate capacity in the Western U.S. is projected to total more than 16,000 MW. Significant benefits of this trend include distributed solar PV generation's increased capacity, partial coincidence with peak power demand, potential for the provision of grid support services (e.g., frequency support and voltage control), and reductions in greenhouse gas and conventional air pollutant emissions. Several potential challenges are also associated with distributed solar PV capacity, including the potential for simultaneous disconnection of distributed solar PV generation systems with narrow tolerance ranges for frequency and/or voltage deviations. Disconnection may be triggered by and/or exacerbate deviations created by a system contingency in the BPS, such as a fault or the loss of a significant generator. However, advanced inverters have a number of capabilities that can support system stability and support reliability in the event of a system contingency, such as providing frequency and/or voltage ride through.

WIEB and WIRAB are leading efforts by the National Renewable Energy Laboratory (NREL) to study potential reliability problems associated with increasing distributed solar PV generation in the Western Interconnection and to disseminate research findings and policy recommendations for addressing these problems to regulators and policymakers in Western Interconnection states.

### **Expanding Market Operations:**

Expanding market operations is a growing trend in the Western Interconnection. Western states have engaged in discussions on the potential creation of a regional ISO that would involve a multi-state grid using the California ISO's technology to coordinate

and optimize electric systems across the states. The California ISO's EIM, which began operation in 2014, has been continuously expanding to include new participants. Now, the California ISO is developing plans to extend day ahead market services to EIM participants. Entities in the eastern part of the Western Interconnection continue to explore membership in an existing regional transmission organization. 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 West and provides a forum for discussions about related issues such as the potential for a regional ISO, expansion of the California ISO's EIM to new participants, extending the California ISO's day ahead market services to EIM participants, and opportunities for joining the SPP as a full member or its proposed EIM. The WIRAB staff monitors and participates in other forums that are exploring these issues, such as public utility commission and regional TOP meetings and workshops. Additionally, the WIRAB staff attends and participates 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.

### **Essential Reliability Services:**

With increasing numbers of synchronous generator retirements in the West, the BPS is becoming increasingly reliant on variable, asynchronous generating resources. 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. It is important that the electric utility industry examine alternative opportunities to provide these essential reliability services and ensure that practices set today support ongoing BPS reliability. Non-synchronous generation technologies, specifically solar PV generation, have historically been regarded as unable to provide the grid support services commonly associated with these synchronous generation resources; services such as frequency support and voltage control. However, new power electronic technologies, which can be implemented through advanced inverters, now enable non-synchronous generation to provide grid support more rapidly than



synchronous generators. New policies and practices accounting for these emerging technologies can help support grid reliability in the future.

WIRAB staff provides leadership and advice by attending, participating in, and monitoring WECC's RAC, Operating Committee and MIC meetings; NERC's Reliability Issues Steering Committee, Operating Committee and Planning Committee meetings; FERC's Reliability Technical Conferences; and other forums within the industry. WIRAB provides written advice to WECC and FERC on policies regarding the risks associated with the provision of essential reliability services. WIRAB staff also provides periodic outreach webinars and develops panel sessions for WIRAB's in-person meetings to discuss emerging trends and to inform Western policy makers and other interested stakeholders of the emerging risks associated with the changing resource mix and changes to the provision of essential reliability services.

## **Periodic Reliability Assessments**

WIRAB staff engage in the following on-going activities in order to provide guidance and independent expert advice on WECC's periodic reliability assessments:

### **Variable Energy Resources:**

High priority reliability topics for the Western Interconnection include 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 Joint Task Force. Further, WIRAB staff monitors and engages with NREL, the Lawrence Berkeley National Laboratory (LBNL), the Energy Systems Integration Group (ESIG), the California ISO, and other researchers investigating the flexibility and reliability of the power system to integrate higher levels of renewable energy. WIRAB also provides outreach to Western states and provinces on the policy implications associated with new research.

### **Gas-Electric Interdependencies:**

The North American power sector's reliance on natural gas for electric generation has grown significantly. Low natural gas prices, environmental regulations, and improving technologies have all contributed to rapid and sustained investment in new gas-fired power plants across the U.S. The natural gas and electricity industries evolved independently but are now inextricably interdependent. In the West, issues surrounding the Aliso Canyon natural gas storage field in southern California highlighted these interdependencies. In response to growing concerns about electric reliability, both FERC and NERC directed focused inquiries into issues related to gas-electric coordination, including NERC's assessment of single points of disruption.

In 2014, WIRAB's sister organization, WIEB, commissioned a Western-Interconnection-wide assessment of gas-electric interdependencies. Phase 1 of the study assessed natural gas infrastructure. Phase 2 of the study assessed short term operational flexibility. In 2017-2018, WIRAB staff participated in WECC's Gas and Electric Interface Study, which analyzed potential vulnerabilities between the gas sector and the electric sector in the Western Interconnection. WIRAB members and the WIRAB staff continue to work with WIRAB's partners in the Western Interconnection to assess the adequacy, security, and risks associated with natural gas infrastructure and its ability to reliably meet evolving BPS needs.

## **Reliability Standards and Proactive Enforcement**

WIRAB staff engage in the following on-going activities in order to provide independent expert advice on the development and proactive enforcement of reliability standards:

### **Reliability Standards:**

NERC reliability standards were created to provide minimum requirements for planning and operating the electric grid. The compliance and enforcement of these reliability standards ensures there is oversight and accountability of BPS owners and operators and that system-wide reliability is maintained. It is important that reliability standards are strict enough to guarantee that system reliability is maintained, but flexible enough to respond to the changing industry. It is important 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 provides independent expert 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/or monitors WECC's Operating Committee meetings, WECC's Standards Committee meetings, NERC's standard development process and other industry forums. When necessary, WIRAB provides written advice to WECC, NERC and FERC on the implementation of specific standards within the Western Interconnection. WIRAB staff also conducts periodic outreach webinars and develops panel sessions for WIRAB's in-person meetings to lead discussions on emerging trends with Western policy makers and other stakeholders and to provide independent, expert advice on reliability standards.

### **Physical Security and Cybersecurity:**

Physical security and cybersecurity of the electric grid represent issues of growing concern in the West and across the Nation. Until recent years, most physical and cyber security incidents were confined to other sectors. Recently, however, physical and cyber incidents have represented a greater threat to the electric grid reliability.

WIRAB has monitored incidents that have compromised both the physical security and cybersecurity of the grid for several years. In 2014, 2015, and 2017, WIRAB conducted webinars on the physical security and/or cybersecurity of the grid. WIRAB will continue to monitor the development of NERC's Critical Infrastructure Protection (CIP) standards and, as appropriate, WIRAB will update its members on CIP standards. WIRAB will also continue to observe NERC's GridEX exercises, which provide utilities with opportunities to demonstrate how they would respond to coordinated cyber and physical security events.

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## **Section B – WIRAB Supplemental Financial Information**

### **2020 Business Plan and Budget**

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## Section B – Supplemental Financial Information

### Working Capital Reserve

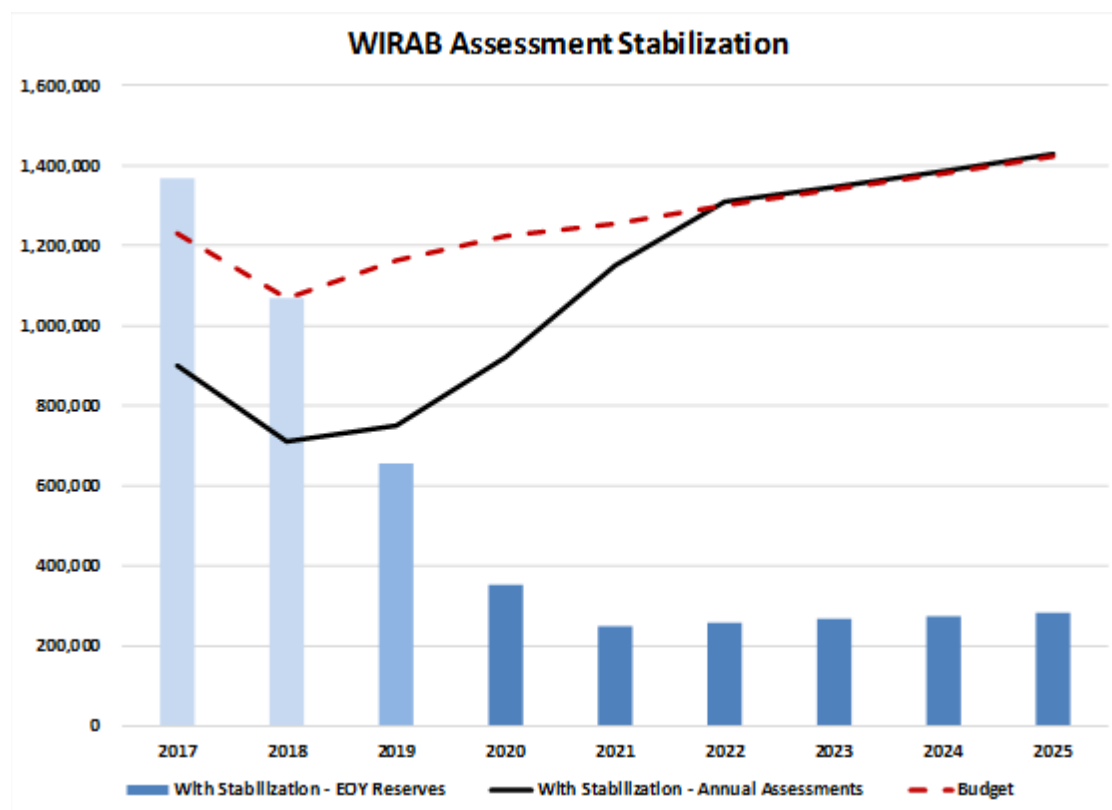
WIRAB projects it will have a working capital reserve of \$545,700 on December 31, 2019, as compared to a desired working capital reserve at December 31, 2020, of \$277,400. The surplus working capital reserve results in a \$268,300 reduction in WIRAB's funding requirement for 2020.

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. 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 more closely match actual expenses. The financial reserve allows for some budgetary flexibility.

WIRAB reduced its working capital reserve from \$1,368,238 on December 31, 2017 to \$1,068,456 on December 31, 2018 and is projecting a balance of \$545,700 on December 31, 2019. The desired working capital reserve for December 31, 2020 is \$277,400 or 22% of WIRAB's proposed budget for 2020. WIRAB is targeting a working capital reserve equal to 20% of budgeted expenses beginning in 2021. The higher reserves in 2020 are intended to stabilize the change in assessments during the transition from the period of surplus reserves. Table B-1 shows WIRAB's analysis of its working capital reserves. Table B-2 shows past and projected assessments under WIRAB's Assessment Stabilization Plan.

<b>WIRAB - Working Capital Reserve Analysis 2019-2020</b>	
<b>STATUTORY</b>	
<b>Beginning Working Capital Reserve (Deficit), December 31, 2018</b>	944,599
Plus: 2019 Funding (from LSEs or designees)	750,000
Plus: 2019 Other funding sources	600
Minus: 2019 Projected expenses & capital expenditures	<b>(1,149,500)</b>
<b>Projected Working Capital Reserve (Deficit), December 31, 2019</b>	<b>545,700</b>
<b>Desired Working Capital Reserve, December 31, 2020<sup>1</sup></b>	277,400
Minus: Projected Working Capital Reserve, December 31, 2019	<b>(545,700)</b>
<b>Increase(decrease) in funding requirement to achieve Working Capital Reserve</b>	<b>(268,300)</b>
2020 Expenses and Capital Expenditures	1,255,200
Less: Penalty Sanctions <sup>2</sup>	0
Less: Other Funding Sources	<b>(600)</b>
Adjustment: To achieve desired Working Capital Reserve	<b>(268,300)</b>
<b>2020 NERC Assessment</b>	<b>986,300</b>
<sup>1</sup> Desired working capital reserve is 25 percent of budgeted expenses.	
<sup>2</sup> Penalty sanctions are not applicable to WIRAB.	

**Table B-1. Working Capital Reserve Analysis 2019 – 2020.**



**Table B-2. Assessment Stabilization Plan.**

WIRAB's total statutory assessment is ultimately paid by ratepayers through transmission fees. Using WIRAB's surplus reserves to reduce statutory assessments has an intergenerational impact on these ratepayers. In the 2014-2016 time period, ratepayers paid assessments that exceeded the cost of WIRAB services. In the 2017-2019 time period, ratepayers paid assessments that were less than the full cost of WIRAB services. As noted above, in 2020, ratepayers would continue to receive an intergenerational subsidy in the amount of \$268,300. WIRAB's goal is to get back to parity between assessments and expenses in 2022.



## Budget Projections for 2020-2022

WIRAB - Statement of Activities and Change in Working Capital 2020 Budget & 2021 and 2022 Projections							
STATUTORY							
	2020	2021	Variance		2022	Variance	
	Budget	Projection	2021 Projection v 2020 Budget Over(Under)	% Change	Projection	2022 v 2021 Projections Over(Under)	% Change
<b>Funding</b>							
<b>WIRAB Funding</b>							
Assessments	\$ 986,300	\$ 1,281,900	\$ 295,600	30.0%	\$ 1,355,100	\$ 73,200	5.7%
Penalty Sanctions	-	-	-	-	-	-	-
<b>Total WIRAB Funding</b>	<b>\$ 986,300</b>	<b>\$ 1,281,900</b>	<b>\$ 295,600</b>	<b>30.0%</b>	<b>\$ 1,355,100</b>	<b>\$ 73,200</b>	<b>5.7%</b>
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	600	600	\$ -	0.0%	600	\$ -	0.0%
Miscellaneous	-	-	-	-	-	-	-
<b>Total Funding (A)</b>	<b>\$ 986,900</b>	<b>\$ 1,282,500</b>	<b>\$ 295,600</b>	<b>30.0%</b>	<b>\$ 1,355,700</b>	<b>\$ 73,200</b>	<b>5.7%</b>
<b>Expenses</b>							
<b>Personnel Expenses</b>							
Salaries	478,300	497,400	19,100	4.0%	517,300	\$ 19,900	4.0%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
<b>Total Personnel Expenses</b>	<b>\$ 478,300</b>	<b>\$ 497,400</b>	<b>\$ 19,100</b>	<b>4.0%</b>	<b>\$ 517,300</b>	<b>\$ 19,900</b>	<b>4.0%</b>
<b>Meeting Expenses</b>							
WIRAB Meetings	\$ 52,900	\$ 54,500	\$ 1,600	3.0%	\$ 56,100	\$ 1,600	2.9%
State Travel	\$ 30,200	\$ 31,100	\$ 900	3.0%	\$ 32,000	\$ 900	2.9%
Staff Travel	\$ 56,500	\$ 58,200	\$ 1,700	3.0%	\$ 59,900	\$ 1,700	2.9%
Conference Calls	\$ 3,200	\$ 3,300	\$ 100	3.1%	\$ 3,400	\$ 100	3.0%
<b>Total Meeting Expenses</b>	<b>\$ 142,800</b>	<b>\$ 147,100</b>	<b>\$ 4,300</b>	<b>3.0%</b>	<b>\$ 151,400</b>	<b>\$ 4,300</b>	<b>2.9%</b>
<b>Operating Expenses</b>							
Consultants & Contracts	\$ 100,000	\$ 100,000	\$ -	0.0%	\$ 100,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
<b>Total Operating Expenses</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>0.0%</b>
<b>Total Direct Expenses</b>	<b>\$ 721,100</b>	<b>\$ 744,500</b>	<b>\$ 23,400</b>	<b>3.2%</b>	<b>\$ 768,700</b>	<b>\$ 24,200</b>	<b>3.3%</b>
<b>Indirect Expenses</b>	<b>\$ 534,100</b>	<b>\$ 555,400</b>	<b>\$ 21,300</b>	<b>4.0%</b>	<b>\$ 577,700</b>	<b>\$ 22,300</b>	<b>4.0%</b>
<b>Other Non-Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>-</b>
<b>TOTAL BUDGET (B)</b>	<b>\$ 1,255,200</b>	<b>\$ 1,299,900</b>	<b>\$ 44,700</b>	<b>3.6%</b>	<b>\$ 1,346,400</b>	<b>\$ 46,500</b>	<b>3.6%</b>
<b>CHANGE IN WORKING CAPITAL (=A-B)<sup>1</sup></b>	<b>\$ (268,300)</b>	<b>\$ (17,400)</b>	<b>\$ 250,900</b>	<b>-</b>	<b>\$ 9,300</b>	<b>\$ 26,700</b>	<b>-</b>
FTEs	5.00	5.00	-	0.0%	5.00	-	0.0%

<sup>1</sup> Fixed Asset included in Indirect Expenses.

Table B-3. Budget 2020 Compared with 2020-2022 Projections.

WIRAB projects a 3.6% increase to its annual budgets in 2021 and 2022. These increases reflect expected cost-of-living adjustments to personnel expenses for employees working in Denver, Colorado and increased costs for meetings and travel.

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## **Section C – Non-Statutory Activities**

### 2020 Business Plan and Budget

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## **Section C – Non-Statutory Activities**

WIRAB does not engage in non-statutory activities.

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## **Section D – Additional Consolidated Financial Statements**

### **2020 Business Plan and Budget**

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## Section D – Additional Consolidated Financial Statements

### Statement of Financial Position

Table D-1 provides WIRAB's Statement of Financial Position as of the following dates:

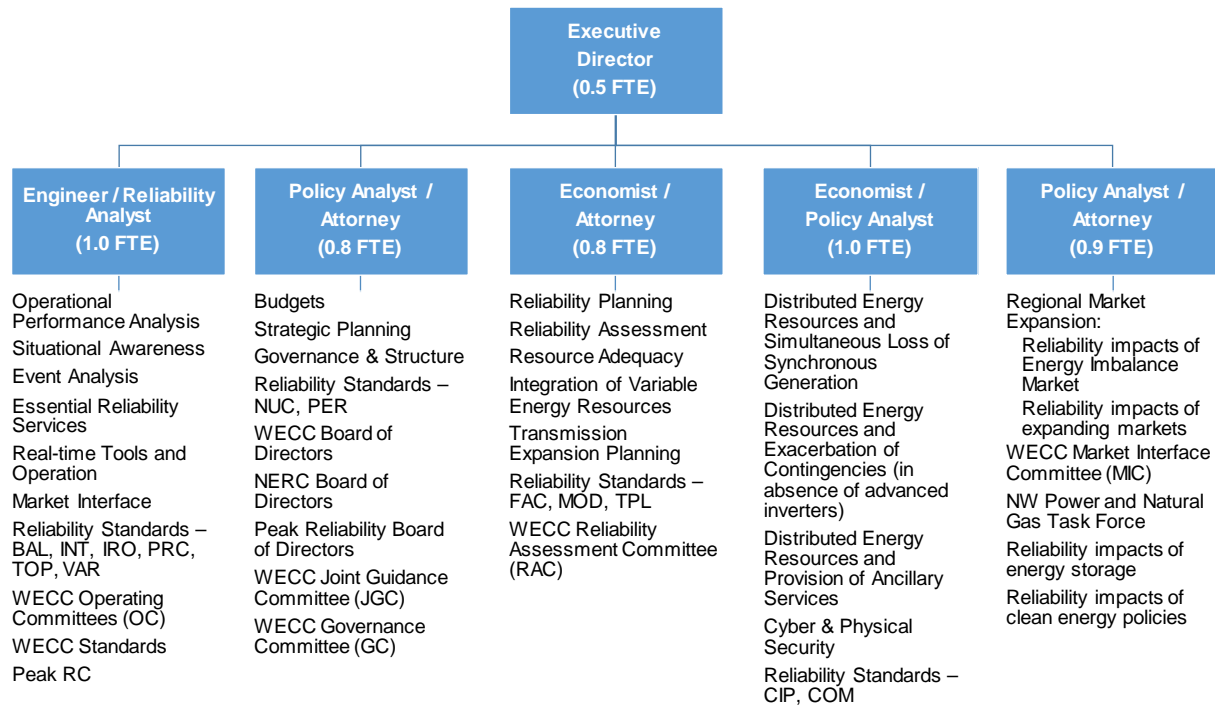
- As of June 30, 2018, per audit
- As of December 31, 2019, projected
- As of December 31, 2020, as budgeted

<b>WIRAB - Statement of Financial Position</b>				
<b>STATUTORY</b>				
	<b>As of June 30, 2018 (Audit)</b>	<b>As of December 31, 2019 (Projected)</b>	<b>As of December 31, 2020 (Budgeted)</b>	
<b>Assets</b>				
Cash and Investments	\$ 1,369,826	\$ 545,700	\$ 277,400	
<b>Total Assets</b>	<b>\$ 1,369,826</b>	<b>\$ 545,700</b>	<b>\$ 277,400</b>	

**Table D-1. Statement of Financial Position, Three-Year Comparison**

## Appendix A Organization Chart

The WIRAB Organization Chart is shown below.



**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 10**

**NERC MANAGEMENT'S RESPONSES  
TO STAKEHOLDER COMMENTS SUBMITTED  
ON DRAFT #1 AND DRAFT #2 OF NERC'S  
2020 BUSINESS PLAN AND BUDGET**



Re: Management Response to 2020 Business Plan and Budget (BP&B) Comments

**Draft #1**

**Date:** July 11, 2019

The deadline for comments on the first draft of NERC's 2020 Business Plan and Budget (BP&B) was May 17–June 28, 2019. Comments were submitted by six entities and covered a range of topics. Below is a summary of those comments and NERC management's responses as applicable.

**Bonneville Power Administration (BPA)**

BPA expressed support for the investment and the importance of the Electricity Information Sharing and Analysis Center (E-ISAC) and the Cybersecurity Risk Information Sharing Program (CRISP), and applauded NERC and the industry on the Standards Efficiency Review (SER) project. BPA indicated the need for a better understanding of the E-ISAC and CRISP programs and a higher degree of transparency on the tangible benefits to the industry, as well as assurance that as resources are transferred from other programs to the E-ISAC, that those programs will still be viable to the industry.

NERC Management Response

Under the oversight of the Electricity Subsector Coordination Council's Member Executive Committee, NERC is making ongoing investments into additional resources, including personnel and technology, in support of the *E-ISAC Long-Term Strategic Plan*, while at the same time stabilizing costs in other NERC programs through ongoing effectiveness efforts and efficiency increases. However, NERC remains committed to investing in all NERC programs in support of the strategic focus areas outlined in the broader *ERO Enterprise Long-Term Strategy*.

The benefits for industry that result from investment in the E-ISAC long-term strategy are detailed in the NERC 2020 BP&B, Section A, in the "Stakeholder Engagement and Benefit" portion of the E-ISAC section. These benefits include, but are not limited to, enhancements to the following:

- **E-ISAC Portal, Communications, and Critical Broadcast Program (CBP)** – The E-ISAC Portal includes a user-community capability that allows members with similar security concerns to collaborate directly on a secure platform. In addition to Portal communications, the E-ISAC issues bulletins, develops periodic reports, and holds monthly and dynamic briefings. The E-ISAC also developed the CBP to deliver information rapidly to stakeholders about emerging security threats based on the best analysis available at the time, with follow-on updates as more details emerge.

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- **Watch Operations** – Watch Operations is the principal entry and egress point for information sharing between the E-ISAC and its members and partners. Information flows into the organization via E-ISAC Portal postings, emails, phone calls, and other means and receives initial analysis by Watch Officers to determine (1) the severity of the event, (2) if it is part of an ongoing series of related events, and (3) whether it rises to the level that requires a “deeper dive” by cyber and physical security subject matter experts. As part of the long-term strategy, the E-ISAC is transitioning to 24/7 watch operations in support of increased information sharing and analysis objectives. Watch Operations staff and physical and cyber analysts will rotate through an after-hours, on-call schedule on a weekly basis. If escalation is required, a physical and/or cyber analyst will be involved, with further management escalation as needed.
- **Analysis** – As mentioned above, the E-ISAC publishes reports, bulletins, and advisories; conducts webinars; and convenes experts for classified and unclassified briefings for its members. The most valuable content in those activities comes from analysis by E-ISAC cyber security, physical security, and threat intelligence teams. The E-ISAC long-term strategy has guided investments in hiring and training skilled security analysts, identifying and leveraging additional technology, enhancing relationships with government analysis sources, and developing strategic vendor relationships.
- **GridEx and GridSecCon** – The E-ISAC’s biennial GridEx is designed to (1) exercise the electricity industry’s crisis response to simulated coordinated cyber and physical security threats and incidents, (2) strengthen crisis response functions, and (3) provide input for lessons learned. GridSecCon is the E-ISAC’s annual conference that brings together hundreds of subject matter experts on cyber, physical, and operations technology threats and solutions, with training sessions and classified and official use only briefs on topics vital to grid security.
- **CRISP** – CRISP is a unique private-public initiative among the E-ISAC, North American electric utility industry, the U.S. Department of Energy, and the U.S. Intelligence Community. Using passive information sharing devices on CRISP participant networks outside boundary firewalls, participant data is matched against identified threat signatures to examine potential threats and provide participants with recommended mitigation steps. Aggregated indicators of compromise and other relevant security information is shared with all asset owners and operators (AOOs) that are registered with the E-ISAC, regardless of participation in CRISP, through E-ISAC Portal postings.
- **Cyber Automated Information Sharing System (CAISS)** – The E-ISAC has also broadened automated information sharing capabilities beyond CRISP. In 2017 and early 2018, the E-ISAC and several industry partners piloted CAISS. The pilot evaluated technological solutions for bi-directional communication, workflow between participants, the handling and vetting of shared information, and lessons learned from the technology and processes overall. CAISS became operational in 2019 and is available for voluntary participation by industry AOOs.

Additional information is also provided below in response to comments from the Canadian Electricity Association (CEA) and the Independent Electricity System Operator (IESO).

## **CEA and IESO**

CEA and IESO, both Canadian entities, provided similar comments, commending NERC's budget stabilization efforts outside of the E-ISAC through ongoing cost-effectiveness and efficiency increases. However, both organizations expressed concern with the magnitude of E-ISAC budget increases and the corresponding value for stakeholders, including Canadians, urging NERC to continue to seek opportunities to leverage capabilities already available from other agencies and partners.

## NERC Management Response

NERC recognizes that Canadian entities have important and experienced industry and governmental resources focused on cyber security. The E-ISAC is an important supplemental resource offering the following unique and complementary attributes:

- **Broad View** – The E-ISAC is positioned to take a broad view of the threat landscape across all of North America. E-ISAC membership includes utilities with interests in Canada, Mexico, and the United States (including Alaska, Hawaii, and its territories) and covers a range of organizations from municipal and cooperative entities to investor-owned entities, including generation, transmission, and distribution functions.
- **Electricity Industry Focus** – The E-ISAC is focused on threats to the electricity industry, and provides industry-specific guidance. At the same time, it maintains relationships with other ISACs that address security issues impacting critical interdependent sectors.
- **Access to the Intelligence Community** – Due to the E-ISAC's partnerships with various government entities, the E-ISAC also has access to the Intelligence Community and its data and resources. The E-ISAC can use information below the tear line from the Intelligence Community and share it with members subject to the requirements of established information sharing protocols.
- **Member Community** – Because the E-ISAC is focused on the electricity industry, it has a well-defined community of members and offers a range of opportunities for members to interact with each other. Some opportunities include monthly briefings, unclassified threat workshops, and large security training and exercise events like GridSecCon and GridEx. The E-ISAC also maintains close working relationships with Canadian entities, as well as with Natural Resources Canada, Public Safety Canada, the Canadian Centre for Cyber Security, the Canadian Communications Security Establishment, and the Royal Canadian Mounted Police.
- **Physical Security** – The E-ISAC is also a growing source for aggregated physical security information. The E-ISAC works closely with both U.S. and Canadian member organizations and governments to regularly review physical security threat information to track and identify threats.
- **Partnership Outreach** – The E-ISAC has focused on enhancing its partnerships with Canadian industry members and finding collaboration opportunities. The E-ISAC has committed to visiting companies across the provinces. So far, E-ISAC staff members have visited IESO, New Brunswick Power, BC Hydro, Hydro Quebec, and Manitoba Hydro, and are confirming additional meetings over the coming months. The feedback has been positive, the relationships stronger and, most

importantly, the E-ISAC is seeing increases in membership, information sharing, and collaboration. In late 2018 through 2019, the E-ISAC had 25 new Canadian AOO user accounts.

In addition, over the past few months, the E-ISAC and IESO have been working in good faith to gain additional insights on their respective capabilities, including the IESO's new and unique role in cyber information sharing and analysis within the Ontario province. These discussions have also focused on the mutual benefits of entering into pilot collaboration agreement, which builds on the strengths of both organizations and improves the overall efficiency and effectiveness in the execution of their common objective of assisting industry with cyber security awareness and reducing cyber security risks.

### **Edison Electric Institute (EEI)**

EEI expressed support for NERC's investment in the E-ISAC. EEI also encouraged NERC to continue enterprise-wide effectiveness and efficiency efforts, and to clearly identify those savings to stakeholders, particularly with respect to meetings and travel expenses in light of efforts to improve productivity and effectiveness of stakeholder engagement activities. Additionally, EEI requested that NERC provide clarity on the drivers for its salary increase, and continue to look for opportunities to reduce medical expenses.

### NERC Management Response

As part of the *ERO Enterprise Long-Term Strategy*, NERC is committed to effectiveness and efficiency efforts and reflecting identified cost savings as part of the BP&B process. Meeting and travel expenses are increasing slightly in 2020 mainly due to E-ISAC personnel increases, engagement efforts, and enhanced conference call capabilities. Potential savings from the NERC stakeholder committee restructure will be analyzed and determined once there is more certainty on the outcome of the committee and meeting structures going forward.

Also as part of the ERO Enterprise long-term strategy, NERC is committed to building and maintaining top talent with the required specialized expertise necessary to fulfill the ERO Enterprise's mission-critical roles. Executive and staff compensation and benefits are determined based on guidelines established by the Board of Trustees (Board) Corporate Governance and Human Resources Committee and the results of market compensation and benefit studies. The 2020 budget for base salaries assumes a 3.0% increase over actual 2019 base salaries for merit adjustments and, as requested by the Board, up to 0.5% for equity and market adjustments.

NERC benchmarks benefit costs with industry and similar organizations and works actively with an independent broker to keep costs reasonable to stay competitive for talent acquisition and retention, and increases to medical insurance plan costs were below market for several years. NERC's medical benefits plans have not changed for 2020; however, the past two years have shown higher increases due to recent loss experience and fewer medical insurance provider options in the state of Georgia. NERC continues to negotiate these premiums and will have final amounts for 2020 at the end of 2019.

### **ISO RTO Council Standards Review Committee (SRC)**

The ISO RTO Council SRC expressed the following:

- Following the results of the SER, NERC should make adjustments in the Reliability Standards and compliance program areas to include reduced compliance requirements reflected in NERC's processes;
- Ensure the E-ISAC is able to provide the most relevant and timely actions in response to bulk power system threats and vulnerabilities;
- Following the implementation of the Compliance Monitoring and Enforcement Program (CMEP) tool, Align, and the Centralized Organization Registration ERO System (CORES), NERC should identify and reflect resulting savings in future budget years; and
- NERC committee structure changes in development by the Stakeholder Engagement Team could result in reduced meeting and travel expense projections for future budget years.

#### NERC Management Response

NERC generally agrees with the statements above, as they are aligned with the goals or potential outcomes of the SER project, the *E-ISAC Long-Term Strategy*, Align and CORES tools, and the effectiveness and efficiency efforts related to stakeholder engagement. With regard to financial savings following the implementation of Align and CORES, savings for application costs (i.e., software licenses, maintenance, and support) will be realized in future Regional Entity budgets as they transition from their legacy CMEP systems to the centralized tools.

### **National Rural Electric Cooperative Association (NRECA)**

NRECA expressed general support for the first draft of NERC's 2020 BP&B and encouraged NERC to continue with its efficiency and effectiveness activities to undertake further cost saving under this 2020 budget and future budget years as well. NRECA noted that this effort should not only be a short-term focus, but should be a long-term focus for NERC.

#### NERC Management Response

NERC agrees with NRECA and notes that its effectiveness and efficiency efforts are part of the *ERO Enterprise Long-Term Strategy*.

## Draft #2

Date: August 7, 2019

The deadline for comments on the second draft of NERC's 2020 BP&B was July 15–31, 2019. Comments were submitted by the Cooperative Sector and the Independent Electricity System Operator (IESO). The Cooperative Sector's comments were supportive of the second draft of NERC's 2020 budget and efforts to stabilize costs outside of the Electricity Information Sharing and Analysis Center (E-ISAC). The Cooperative Sector also noted the expectation that the combined NERC and E-ISAC budget should trend toward a more flat result after the full implementation of the *E-ISAC Long-Term Strategic Plan* in 2022. IESO expressed appreciation for NERC's efforts to respond to concerns regarding potential redundancies between the services the E-ISAC provides and those being provided by other agencies in Canada. IESO specifically acknowledged the development of a pilot collaboration agreement between NERC and IESO for cyber security information sharing.

### NERC Management Response

We appreciate the comments received and stakeholders' continuing support of NERC's mission, particularly regarding the work of the E-ISAC and the implementation of its long-term strategy and engagement and collaboration efforts with Canada. NERC encourages stakeholders' continued participation in the BP&B process during its development of the 2021 budget.

**DOCKET NO. RR19-\_\_-000**

**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 11**

**CALCULATION OF ADJUSTMENTS  
THE AESO 2020 NERC ASSESSMENT,  
THE IESO 2020 NERC ASSESSMENT,  
THE NEW BRUNSWICK 2020 NERC ASSESSMENT,  
AND THE QUEBEC 2020 NERC ASSESSMENT**

**2020 AESO Assessment Adjustment**

**Credit for NERC Compliance Costs**

Includes adjustment for 2018 Actual v Budgeted Costs

	AESO NEL Share		2020 Compliance FTEs			Costs Paid by	
	2020 NERC Budget	(2018) 1.391%	Total	Credit	% Credit	AESO Credit	AESO
<b>NERC Compliance Program Budget</b>							
Compliance Assurance	\$ 9,756,389	\$ 135,695	16.92	15.60	92.2%	\$ 125,110	\$ 10,584
Registration and Certification	2,535,712	35,267	4.70	4.47	95.0%	33,504	1,763
Enforcement	6,725,572	93,541	12.22	12.22	100.0%	93,541	-
<b>Total Compliance Costs, including Fixed Assets</b>	<b>\$ 19,017,673</b>	<b>\$ 264,503</b>	<b>33.84</b>	<b>32.29</b>		<b>\$ 252,156</b>	<b>\$ 12,348</b>
<b>True-up 2018 Actual</b>						6,159	
<b>Additional Non-Compliance Costs</b>							
Event Analysis	\$ 4,733,857	\$ 65,840	9.40	0.94	10.0%	\$ 6,584	\$ 59,256
SAFNR v3 support and maintenance	454,500	6,321			100.0%	6,321	
<b>2020 Total Compliance, Event Analysis and SAFNR</b>	<b>\$ 24,206,030</b>	<b>\$ 336,664</b>	<b>43.24</b>	<b>33.23</b>		<b>\$ 271,220</b>	<b>\$ 71,603</b>
<b>2019</b>	<b>\$ 26,633,919</b>	<b>\$ 372,494</b>	<b>46.53</b>	<b>35.61</b>		<b>\$ 314,351</b>	<b>\$ 77,128</b>
<b>Change from 2019</b>	<b>\$ (2,427,889)</b>	<b>\$ (35,830)</b>	<b>(3.29)</b>	<b>(2.38)</b>		<b>\$ (43,131)</b>	<b>\$ (5,524)</b>
<b>2020 Assessment</b>							
2020 NERC Assessment	\$ 730,335						
2020 RE Assessment (WECC & WIRAB)	1,061,104						
<b>Total 2020 Assessment</b>	<b>\$ 1,791,439</b>						
<b>2019 Assessment</b>							
2019 NERC Assessment	\$ 656,732						
2019 RE Assessment (WECC & WIRAB)	876,478						
<b>Total 2019 Assessment</b>	<b>\$ 1,533,210</b>						
<b>Change in Total Assessment</b>	<b>\$ 258,229</b>						<b>16.8%</b>
<b>Change in NERC Assessment</b>	<b>\$ 73,603</b>						<b>11.2%</b>





**2020 New Brunswick Assessment Adjustment**

**Credit for NERC Compliance Costs**

Includes adjustment for 2018 Actual v Budgeted Costs

	2020 NERC Budget	NB NEL Share (2018) 0.307%	2020 Compliance FTEs			NB Credit	Costs Paid by	
			Total	Credit	% Credit		NB	
<b>NERC Compliance Program Budget</b>								
Compliance Assurance	\$ 9,756,389	\$ 29,917	16.92	14.08	83.2%	\$ 24,891	\$ 5,026	
Registration and Certification	2,535,712	7,775	4.70	4.47	95.0%	7,387	389	
Enforcement	6,725,572	20,623	12.22	12.22	100.0%	20,623	-	
<b>Total Compliance Costs, including Fixed Assets</b>	<b>\$ 19,017,673</b>	<b>\$ 58,315</b>	<b>33.84</b>	<b>30.76</b>		<b>\$ 52,900</b>	<b>\$ 5,415</b>	

**True-up 2018 Actual**

1,038

**Additional Non-Compliance Costs**

Event Analysis	\$ 4,733,857	14,516	9.40	0.94	10.0%	\$ 1,452	\$ 13,064	
SAFNR v3 support and maintenance	454,500	1,394			100.0%	1,394		
<b>2020 Total Compliance, Event Analysis and SAFNR</b>	<b>\$ 24,206,030</b>	<b>\$ 74,225</b>	<b>43.24</b>	<b>31.70</b>		<b>\$ 56,783</b>	<b>\$ 18,479</b>	
<b>2019</b>	<b>\$ 26,633,919</b>	<b>\$ 82,561</b>	<b>46.53</b>	<b>34.13</b>		<b>\$ 67,084</b>	<b>\$ 17,034</b>	
<b>Change from 2019</b>	<b>\$ (2,427,889)</b>	<b>\$ (8,336)</b>	<b>(3.29)</b>	<b>(2.43)</b>		<b>\$ (10,300)</b>	<b>\$ 1,445</b>	

**2020 Assessment**

2020 NERC Assessment	\$ 164,031
2020 RE Assessment	357,526
<b>Total 2019 Assessment</b>	<b>\$ 521,556</b>

**2019 Assessment**

2019 NERC Assessment	\$ 148,152
2019 RE Assessment	354,392
<b>Total 2019 Assessment</b>	<b>\$ 502,544</b>

**Change in Total Assessment**

\$ 19,012  
3.8%

**Change in NERC Assessment**

\$ 15,879  
10.7%



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**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 12**

**METRICS COMPARING  
REGIONAL ENTITY OPERATIONS  
BASED ON  
THE 2020 BUDGETS**

**2020 Metrics for Budget Submissions**

	<b>Budget Metrics</b>	<b>MRO</b>	<b>NPCC<sup>6</sup></b>	<b>RF</b>	<b>SERC</b>	<b>Texas RE</b>	<b>WECC</b>
1	Number of registered entities <sup>1</sup>	197	215	240	248	224	377
2	Number of registered functions	563	448	498	698	417	926
3	Total NEL (GWh)	492,730	620,311	916,079	1,315,969	378,082	867,600
4	NEL (GWh) per registered entity	2,501	2,885	3,817	5,306	1,688	2,301
5	Total ERO Funding <sup>2</sup>	\$ 16,983,521	\$ 15,582,037	\$ 22,586,250	\$ 24,584,123	\$ 14,054,128	\$ 28,027,000
6	ERO Funding per registered entity	\$ 86,211	\$ 72,475	\$ 94,109	\$ 99,130	\$ 62,742	\$ 74,342
7	ERO Funding per registered function	\$ 30,166	\$ 34,781	\$ 45,354	\$ 35,221	\$ 33,703	\$ 30,267
8	Total Budget <sup>3</sup>	\$ 17,540,969	\$ 16,601,647	\$ 23,650,862	\$ 24,525,013	\$ 13,831,126	\$ 27,756,089
9	Total Budget per registered entity	\$ 89,040	\$ 77,217	\$ 98,545	\$ 98,891	\$ 61,746	\$ 73,624
10	Total Budget per registered function	\$ 31,156	\$ 37,057	\$ 47,492	\$ 35,136	\$ 33,168	\$ 29,974
11	Total Statutory FTE <sup>4</sup>	63.00	41.09	79.35	98.00	60.00	143.00
12	Registered entity per Statutory FTE	3.127	5.232	3.025	2.531	3.733	2.636
13	Registered function per Statutory FTE	8.937	10.903	6.276	7.122	6.950	6.476
14	Total Compliance Budget <sup>5</sup>	\$ 11,847,844	\$ 9,109,633	\$ 16,945,917	\$ 18,585,684	\$ 10,637,638	\$ 15,558,674
15	Compliance budget per registered entity	\$ 60,141	\$ 42,370	\$ 70,608	\$ 74,942	\$ 47,489	\$ 41,270
16	Compliance budget per registered function	\$ 21,044	\$ 20,334	\$ 34,028	\$ 26,627	\$ 25,510	\$ 16,802
17	Total Compliance FTE	33.63	18.00	45.00	98.00	35.75	61.00
18	Registered entity per Compliance FTE	5.9	11.9	5.3	2.5	6.3	6.2
19	Registered function per Compliance FTE	16.7	24.9	11.1	7.1	11.7	15.2

<sup>1</sup> As of June 2019.

<sup>2</sup> ERO Funding is the sum of Assessments and Penalty Sanctions only. (Excludes funding such as Membership Dues, Testing Fees, Services & Software, Workshops, Interest, and Miscellaneous.)

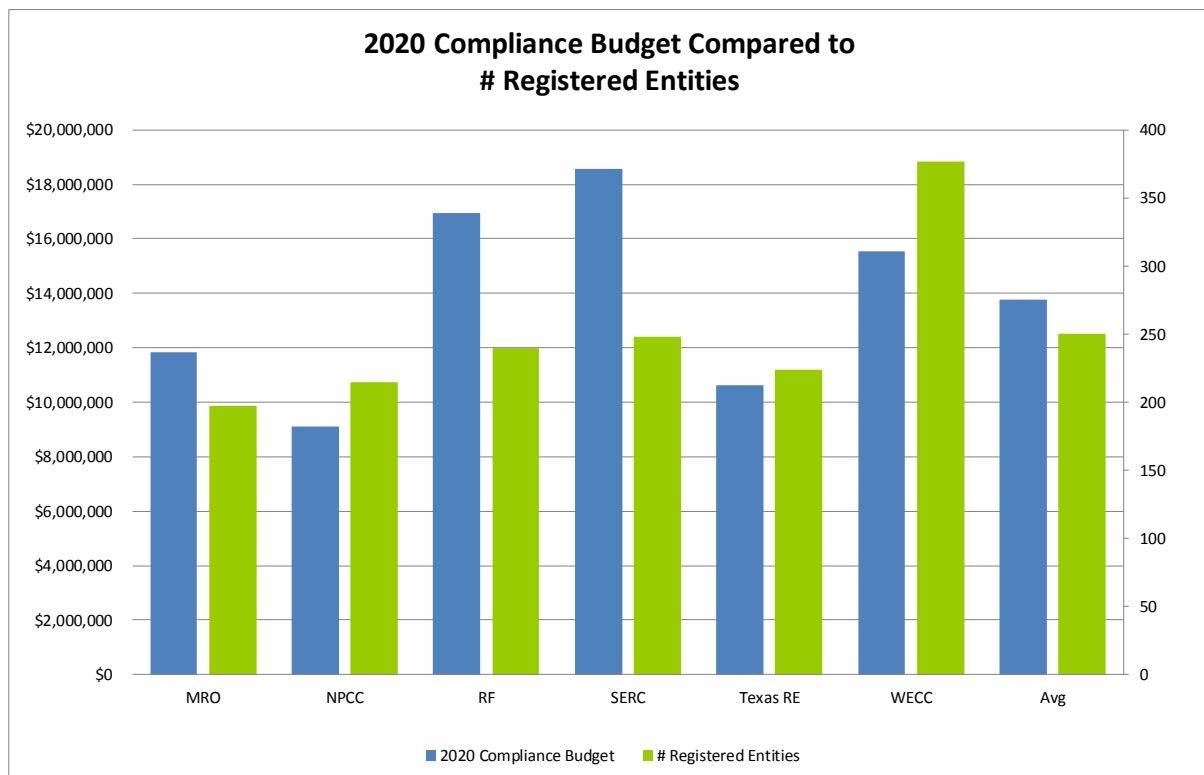
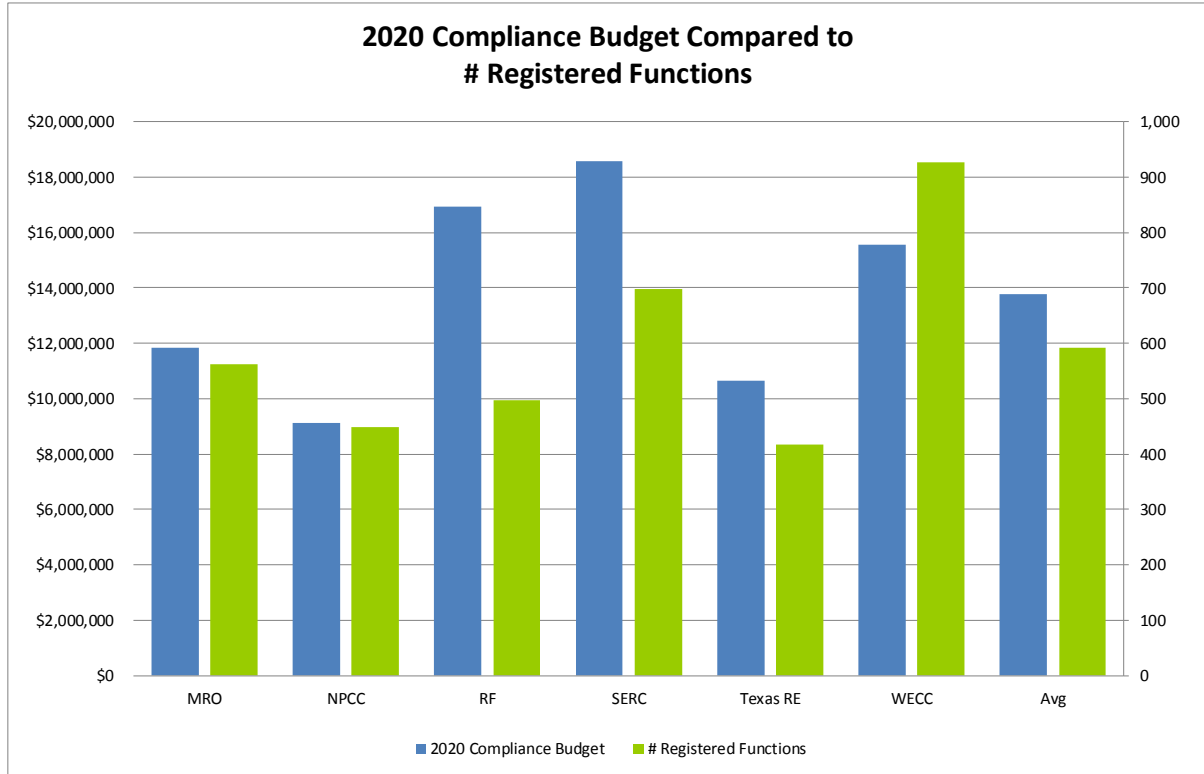
<sup>3</sup> Total Budget is the sum of Total Expenses and the Increase/(Decrease) in Fixed Assets.

<sup>4</sup> 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.

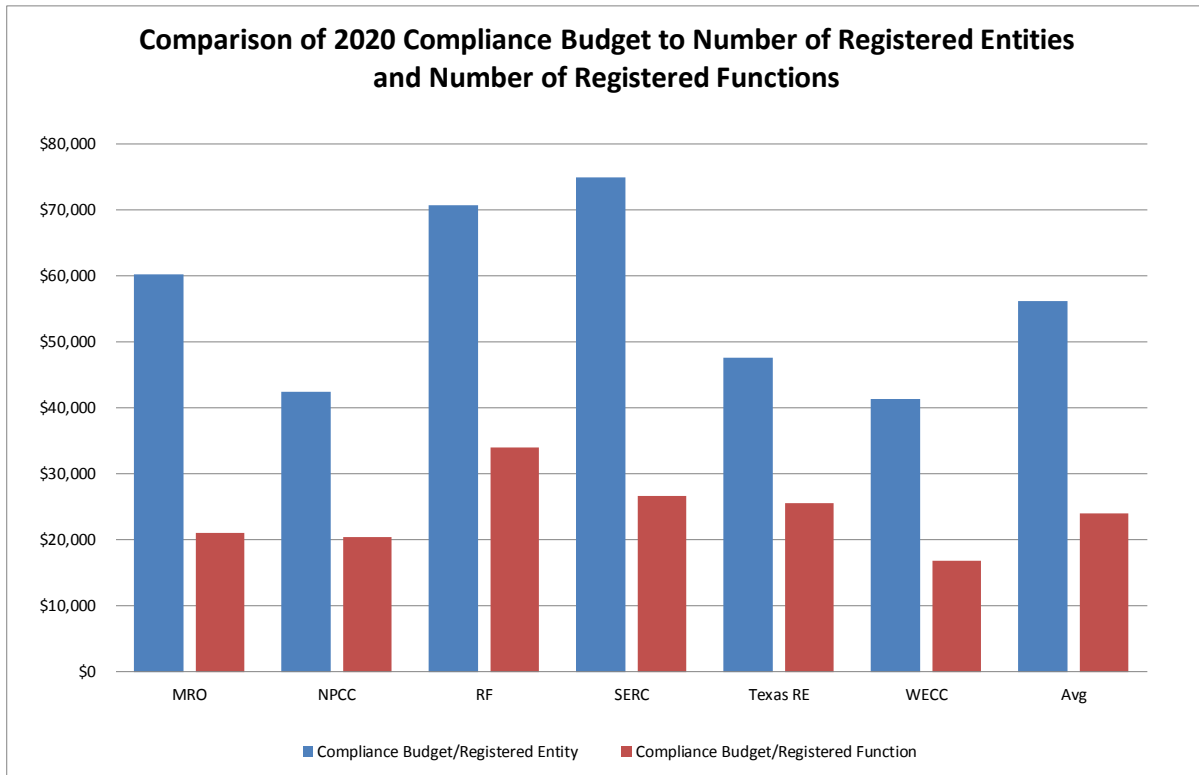
<sup>5</sup> Total Compliance Budget is a sum of Direct Expenses, Indirect Expenses, and Capital Expenditures.

<sup>6</sup> 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.

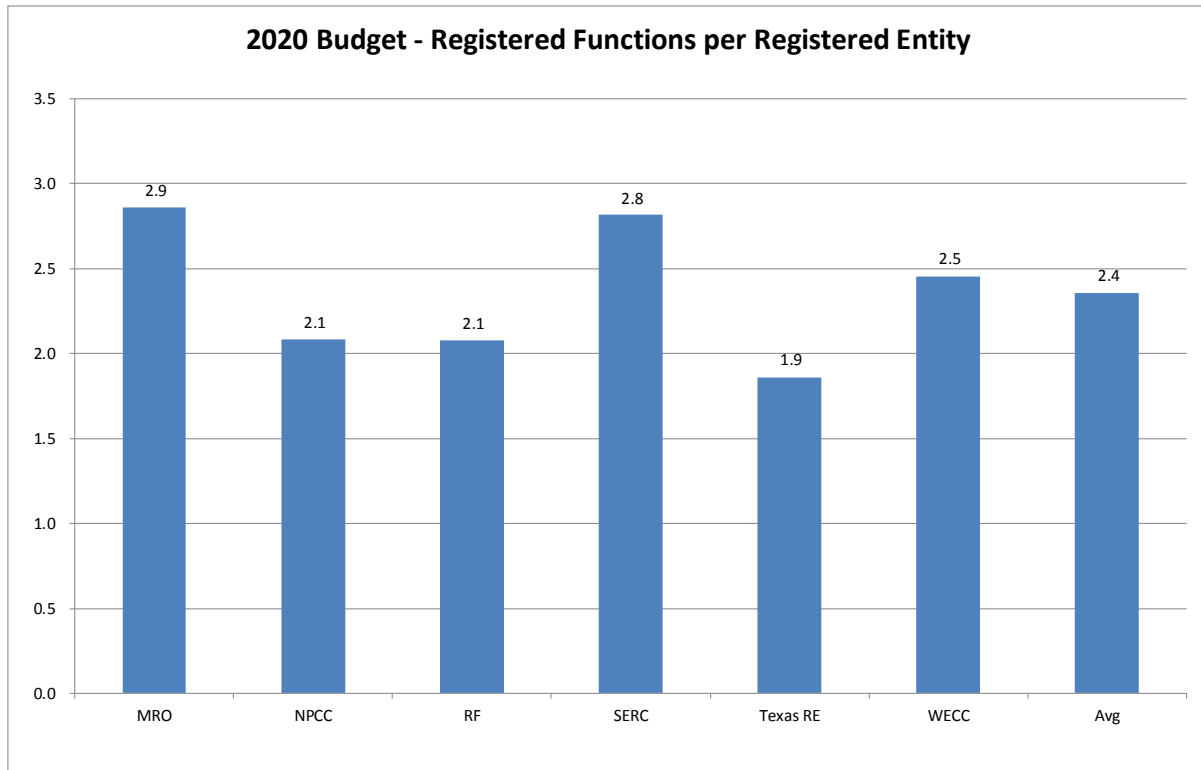
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2020 Compliance Budget	\$11,847,844	\$9,109,633	\$16,945,917	\$18,585,684	\$10,637,638	\$15,558,674	\$13,780,898
# Registered Entities	197	215	240	248	224	377	250
# Registered Functions	563	448	498	698	417	926	592



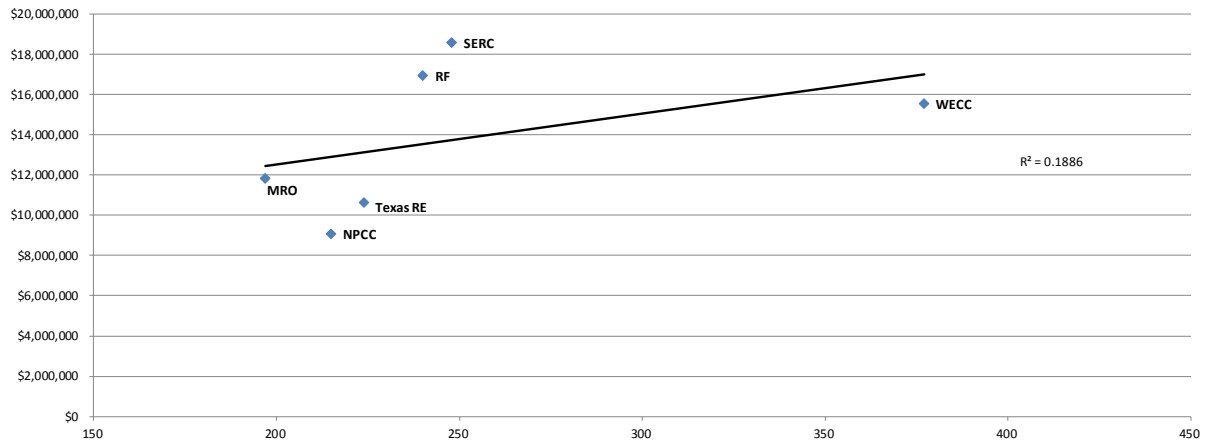
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
Compliance Budget/Registered Entity	\$60,141	\$42,370	\$70,608	\$74,942	\$47,489	\$41,270	\$56,137
Compliance Budget/Registered Function	\$21,044	\$20,334	\$34,028	\$26,627	\$25,510	\$16,802	\$24,058



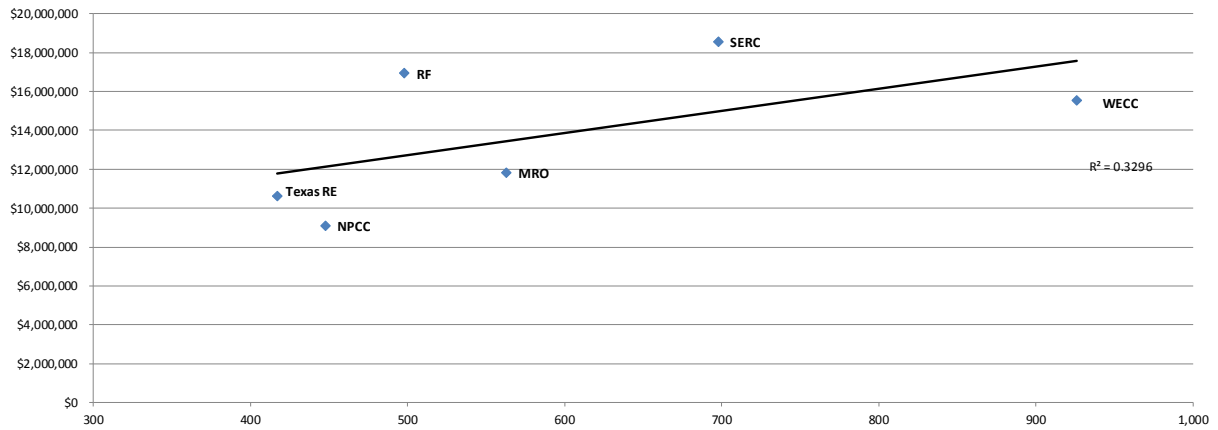
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
Registered Functions per Registered Entity 2020 Budget	2.9	2.1	2.1	2.8	1.9	2.5	2.4



**Regional Entity 2020 Compliance Program Budget as Function of Number of Registered Entities**

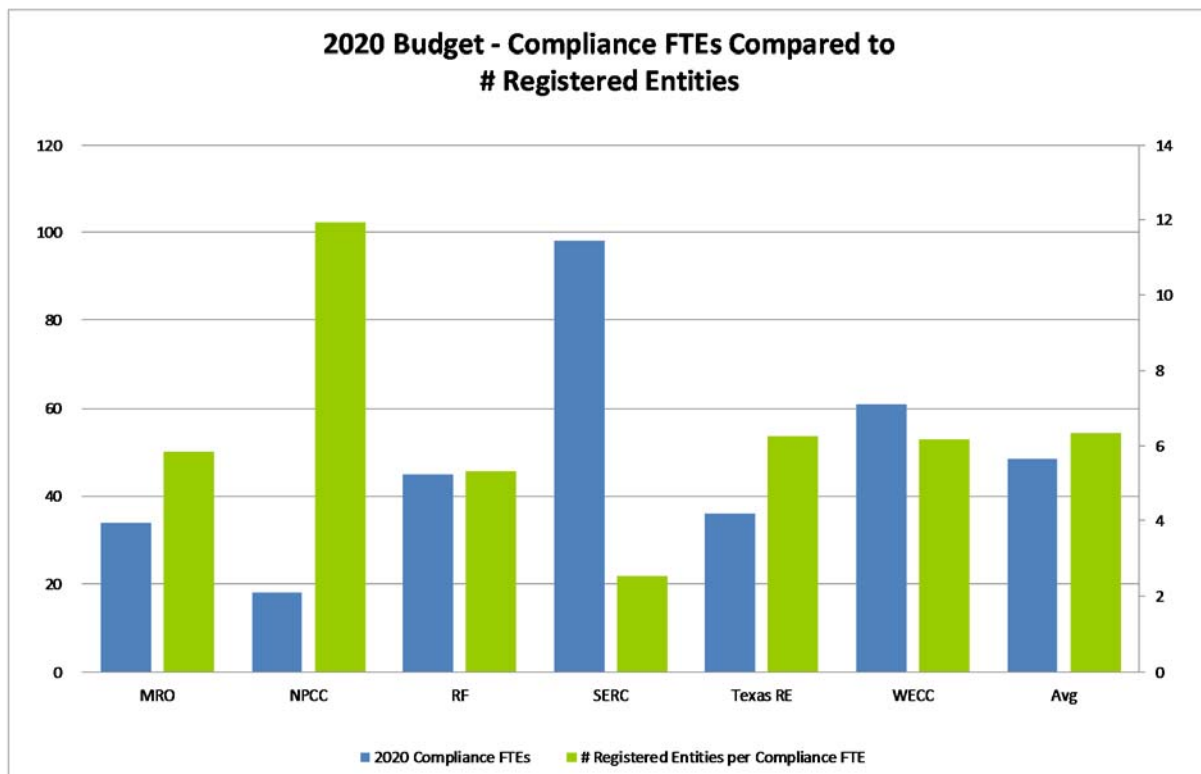
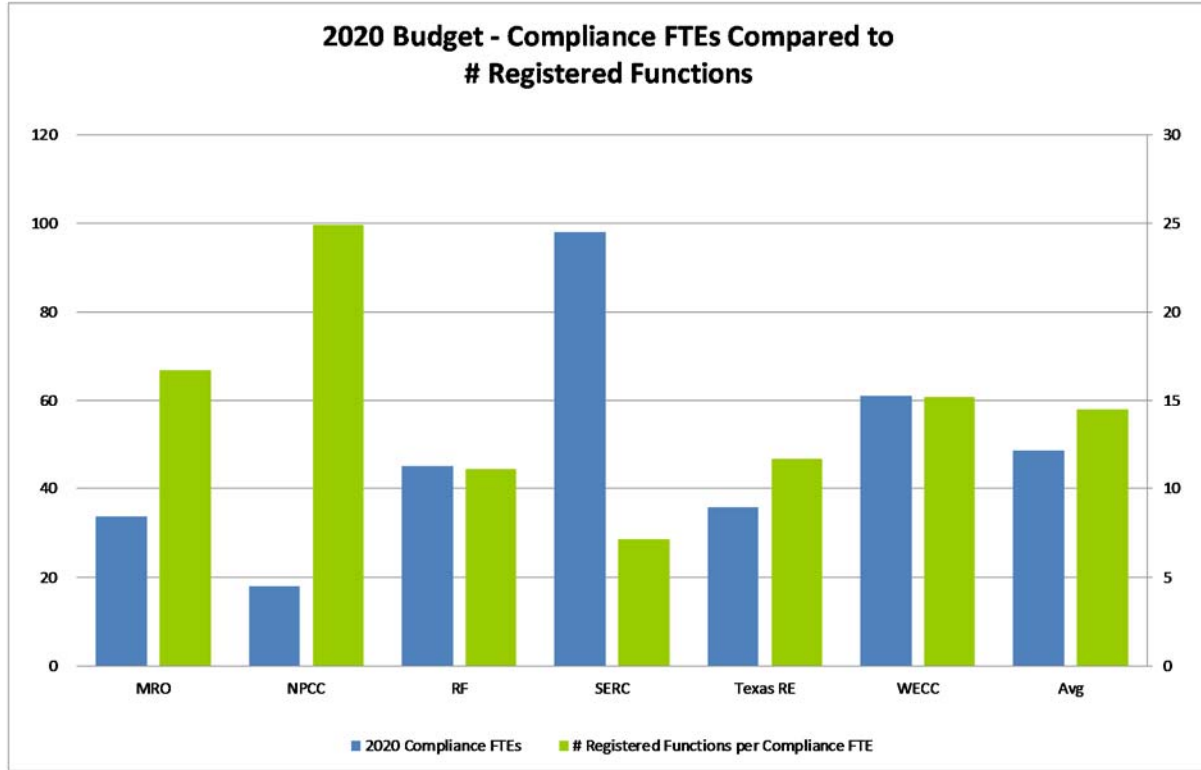


**Regional Entity 2020 Compliance Program Budget as Function of Number of Registered Functions**

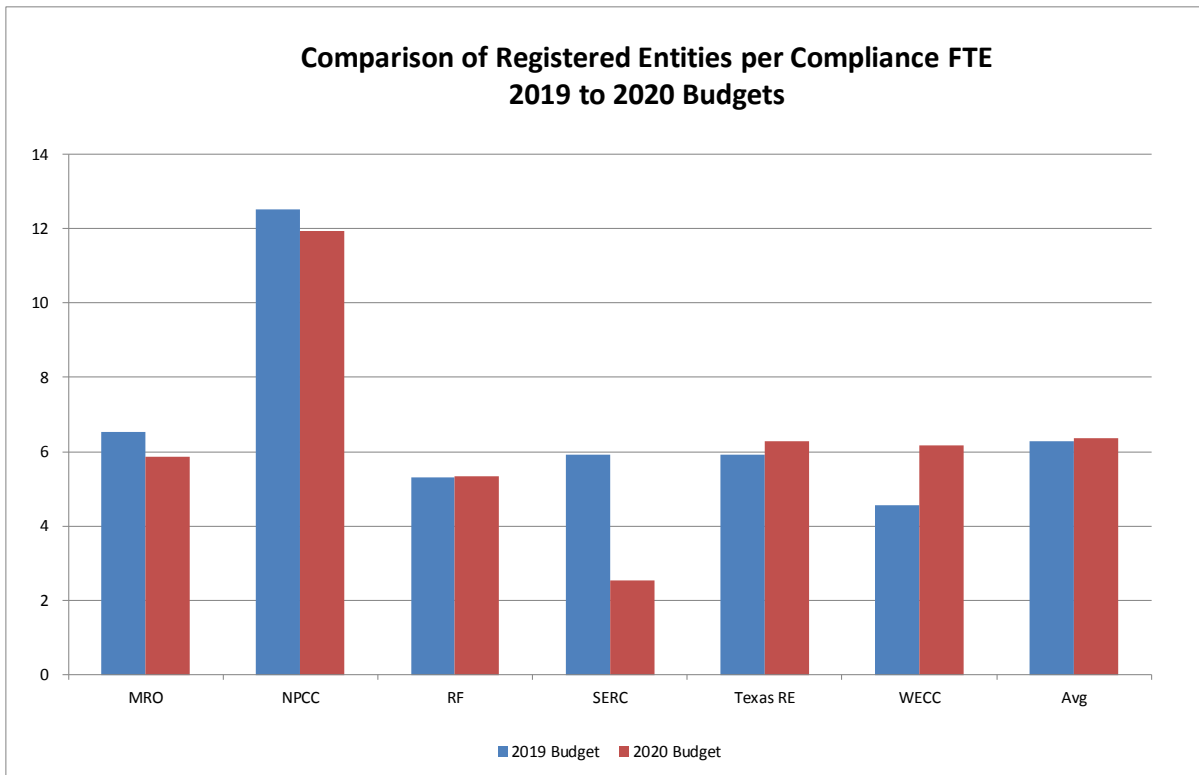




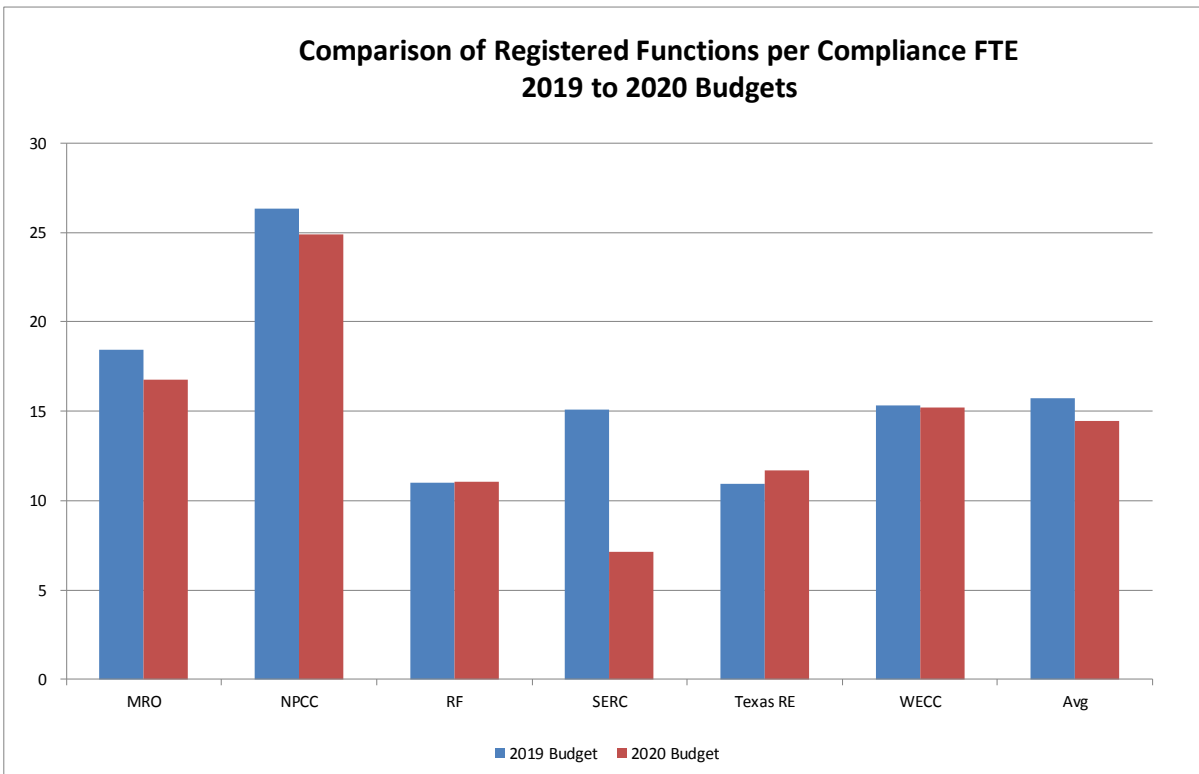
	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2020 Compliance FTEs	33.63	18.00	45.00	98.00	35.75	61.00	48.56
# Registered Entities per Compliance FTE	5.9	11.9	5.3	2.5	6.3	6.2	6.4
# Registered Functions per Compliance FTE	16.7	24.9	11.1	7.1	11.7	15.2	14.4



	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2019 Budget	6.5	12.5	5.3	5.9	5.9	4.6	6.3
2020 Budget	5.9	11.9	5.3	2.5	6.3	6.2	6.4



	MRO	NPCC	RF	SERC	Texas RE	WECC	Avg
2019 Budget	18.4	26.4	11.0	15.1	10.9	15.3	15.7
2020 Budget	16.7	24.9	11.1	7.1	11.7	15.2	14.4



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**NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION**

**2020 BUSINESS PLAN AND BUDGET FILING**

**ATTACHMENT 13**

**METRICS ON NERC AND REGIONAL ENTITY**

**ADMINISTRATIVE (INDIRECT) COSTS**

**BASED ON**

**THE 2019 AND 2020 BUDGETS**

**Analysis of Indirect (Administrative Services) Costs  
2020 Budget versus 2019 Budget**

2019 BUDGET						2020 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
\$ 79,854,654	\$ 48,508,291	\$ 31,346,363	39.3%	1.55	<b>NERC</b>	\$ 83,417,475	\$ 49,266,239	\$ 34,151,236	40.9%	1.44
6,695,787	5,634,096	1,061,691	15.9%	5.31	<b>FRCC</b>	-	-	-	-	-
15,980,354	10,967,562	5,012,792	31.4%	2.19	<b>MRO</b>	17,540,969	11,600,412	5,940,557	33.9%	1.95
15,803,890	10,086,863	5,717,027	36.2%	1.76	<b>NPCC</b>	16,431,647	10,123,703	6,307,944	38.4%	1.60
22,648,458	15,832,553	6,815,905	30.1%	2.32	<b>RF</b>	23,650,862	16,495,173	7,155,689	30.3%	2.31
18,144,949	8,637,442	9,507,507	52.4%	0.91	<b>SERC</b>	24,525,013	13,520,965	11,004,048	44.9%	1.23
13,069,599	7,974,836	5,094,762	39.0%	1.57	<b>Texas RE</b>	13,831,127	8,168,666	5,662,461	40.9%	1.44
\$ 26,950,566	\$ 17,730,811	\$ 9,219,755	34.2%	1.92	<b>WECC</b>	\$ 27,756,089	\$ 17,824,182	\$ 9,931,907	35.8%	1.79
			30.9%	1.95	<b>AVERAGE</b>				29.4%	1.31

2019 BUDGETED FTEs					2020 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
204.92	137.24	67.68	33.0%	2.03	<b>NERC</b>	213.38	139.12	74.26	34.8%	1.87
20.75	16.37	4.38	21.1%	3.74	<b>FRCC</b>	-	-	-	-	-
59.00	47.78	11.22	19.0%	4.26	<b>MRO</b>	63.00	49.14	13.86	22.0%	3.55
38.86	29.86	9.00	23.2%	3.32	<b>NPCC</b>	41.09	30.86	10.23	24.9%	3.02
78.20	61.60	16.60	21.2%	3.71	<b>RF</b>	79.35	62.60	16.75	21.1%	3.74
78.00	44.85	33.15	42.5%	1.35	<b>SERC</b>	98.00	64.50	33.50	34.2%	1.93
60.00	45.25	14.75	24.6%	3.07	<b>Texas RE</b>	60.00	45.25	14.75	24.6%	3.07
143.00	105.00	38.00	26.6%	2.76	<b>WECC</b>	143.00	104.50	38.50	26.9%	2.71
			23.5%	2.69	<b>AVERAGE</b>				20.9%	2.21