

Agenda

Member Representatives Committee Informational Session

July 17, 2024 | 1:00 p.m. – 2:30 p.m. Eastern

Attendee WebEx: [Click to Register and Join](#)

Webinar Number: 2304 785 2645

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Introduction and Chair's Remarks

[NERC Antitrust Compliance Guidelines](#)

Agenda Items

1. **Overview of NERC Membership Sectors***
 - a. Sector 3: Cooperative Utility*
 - b. Sector 5: Transmission-Dependent Utility*
 - c. Sector 6: Merchant Electricity Generator*
 - d. Sector 7: Electricity Marketer*
2. **Schedule and Preliminary Agenda Topics for the August 2024 Board, Board Committees, Technical Session, and MRC Meetings***
 - a. Overview of Input Letter
 - i. ERO Enterprise Long-Term Strategy

*Background materials included.

Overview of NERC Membership Sectors

Action

Information

Summary

At the April 2024 MRC Informational Session, the MRC initiated an educational series for [MRC members](#) to present on NERC's membership sectors¹ that are represented on the MRC, including how each sector is organized and who they represent.

During the July 17, 2024, MRC informational session, the educational series will continue with presentations on the following Sectors:

- Sector 3: Cooperative Utility
- Sector 5: Transmission-Dependent Utility
- Sector 6: Merchant Electricity Generator
- Sector 7: Electricity Marketer

The presentations from the April session were recorded and posted on [NERC's YouTube channel](#). Following the July session, the presentations on the above sectors will be added to the channel.

¹ NERC Membership is organized by 13 sectors (sectors 1 through 10, and sector 12 have voting representation on the MRC). MRC members are elected by NERC members. [Membership in NERC](#) is free, voluntary, and open to any person or entity with an interest in the reliable operation of the North American bulk power system.

Overview NERC Membership Sectors

Sector 3 – Cooperative Utility

MRC Informational Session



Greg Ford, CEO Georgia System Operations (GASOC)

Electric Cooperatives: Who We Are



At-cost
electric service



Locally
governed



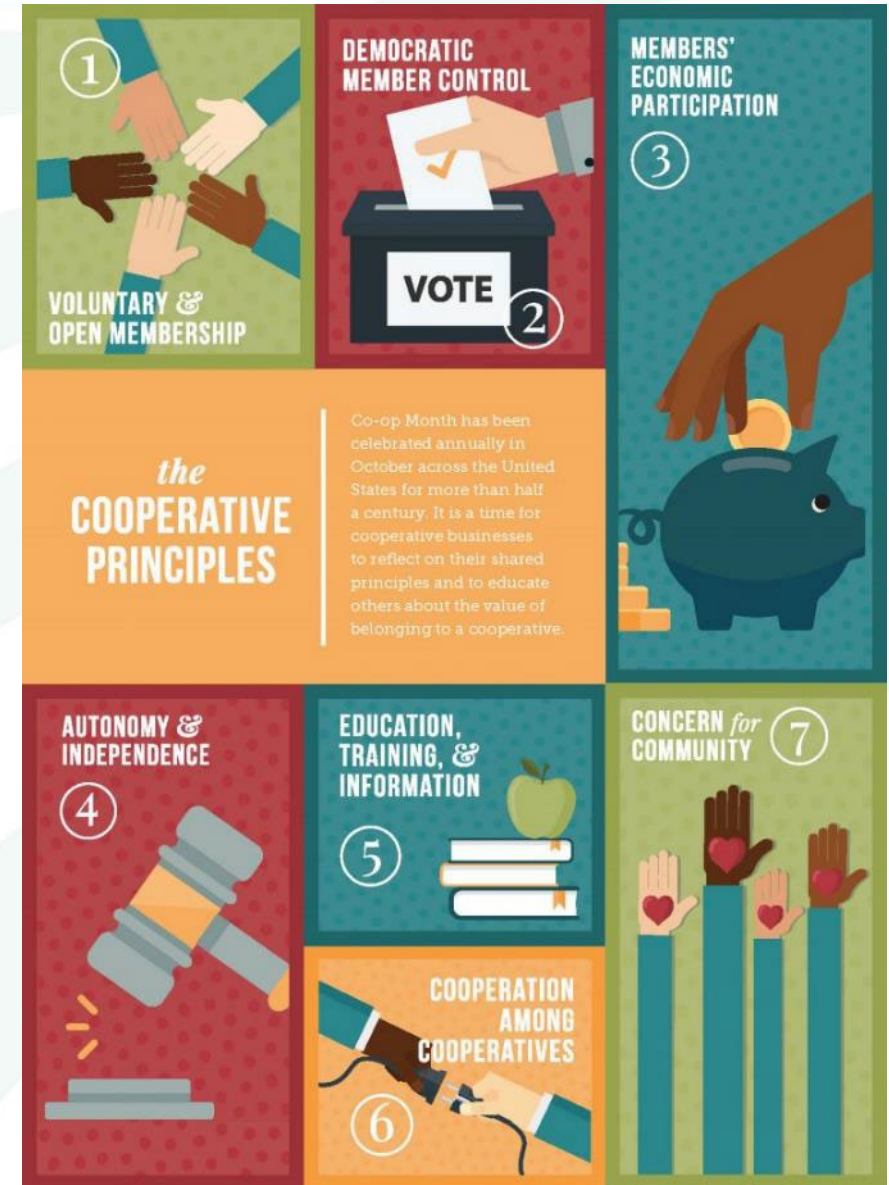
Return excess
revenue



Community
builders

Electric cooperatives are community-focused organizations that work to efficiently deliver affordable and reliable electricity to consumer-members of the co-op. They operate for the benefit of people, not investors.

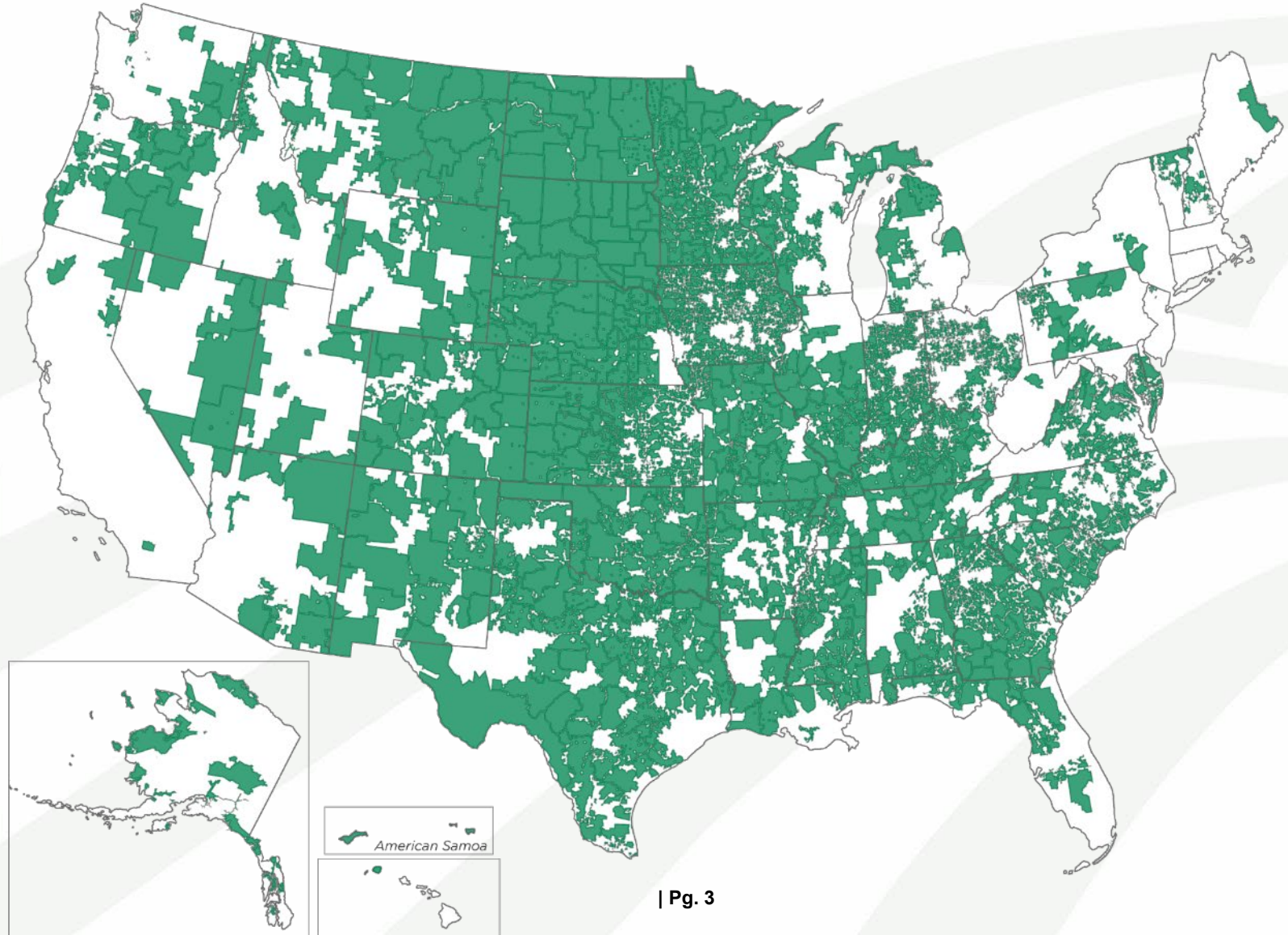
- Focused on providing safe, reliable, and affordable electricity
- Co-ops don't use the term "customers," instead using terms like "consumer-member," "member-owner," or just "member"
- Co-op areas tend to have lower incomes, and co-ops serve in 92% of persistent poverty counties
- Electric cooperatives employ over 73,000 people



Distribution Cooperative Service Areas

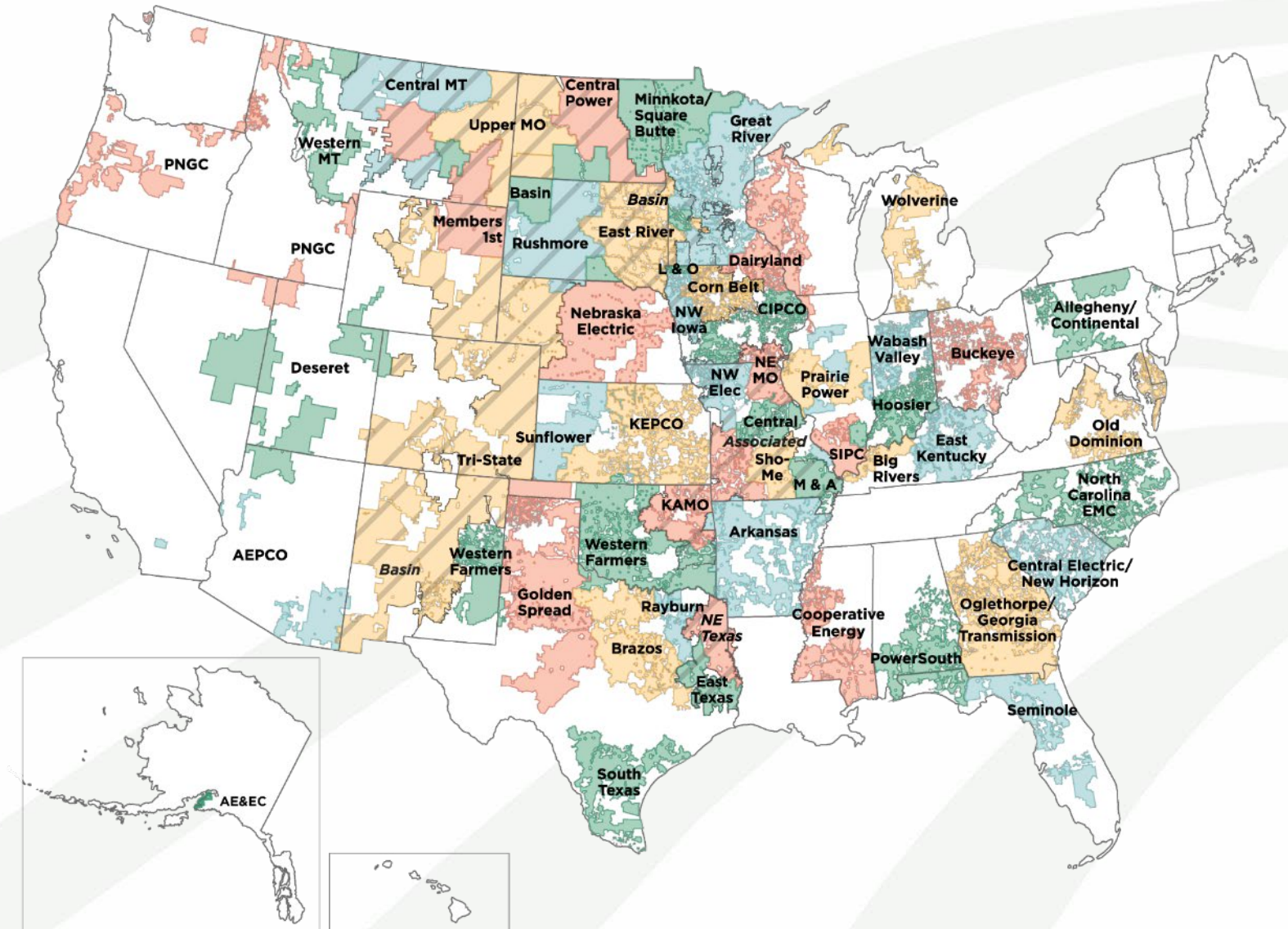
America's Electric Cooperatives:

- ~830 distribution cooperatives and other rural distribution utilities
- Serve 13 percent of U.S. electric customers of all types, more than 42 million people in 48 states
- Deliver 13 percent of retail electric sales, with majority of sales (53%) to residential consumers
- Own and maintain 42% of the nation's distribution lines (around 2.7 million miles)
- Average 8 consumers per mile of line vs. 32 for the rest of the industry



G&T Cooperative Service Areas

- Generation and Transmission (G&T) cooperatives were created by electric cooperatives working together to achieve scale to meet their power supply needs
- ~60 G&T cooperatives, most providing wholesale power through a varying blend of generation, power purchases, and transmission
- Most electric cooperatives (~8 in 10) are a member-owners of a Generation and Transmission (G&T) Cooperative
- The other ~20% purchase wholesale power from TVA, federal PMAs, IOUs, or organized/bilateral wholesale markets
- G&Ts and Distribution Co-ops own approximately 115,000 miles of transmission (69kV and above)

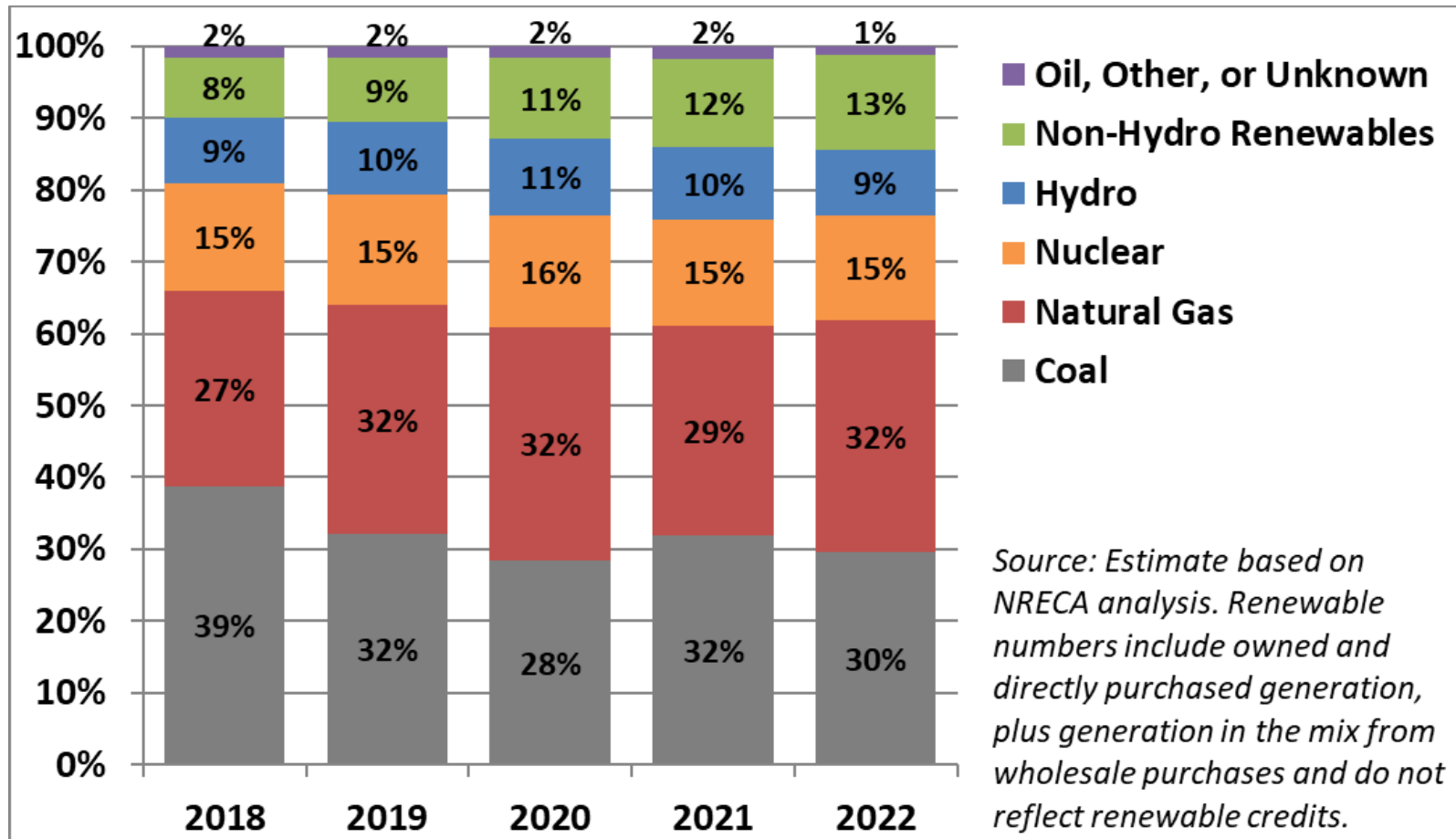


The Evolution of the Co-op Fuel Mix

From a unique starting point, the co-op fuel mix has followed national trends

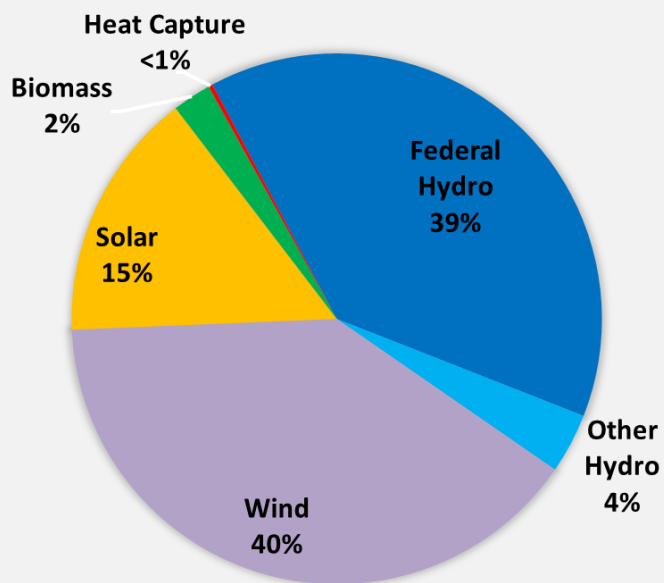
Co-op owned generation accounts for ~5% of national generation and ~40% of co-op retail power supply

The Electric Cooperative Retail Fuel Mix (includes owned generation and purchased power)



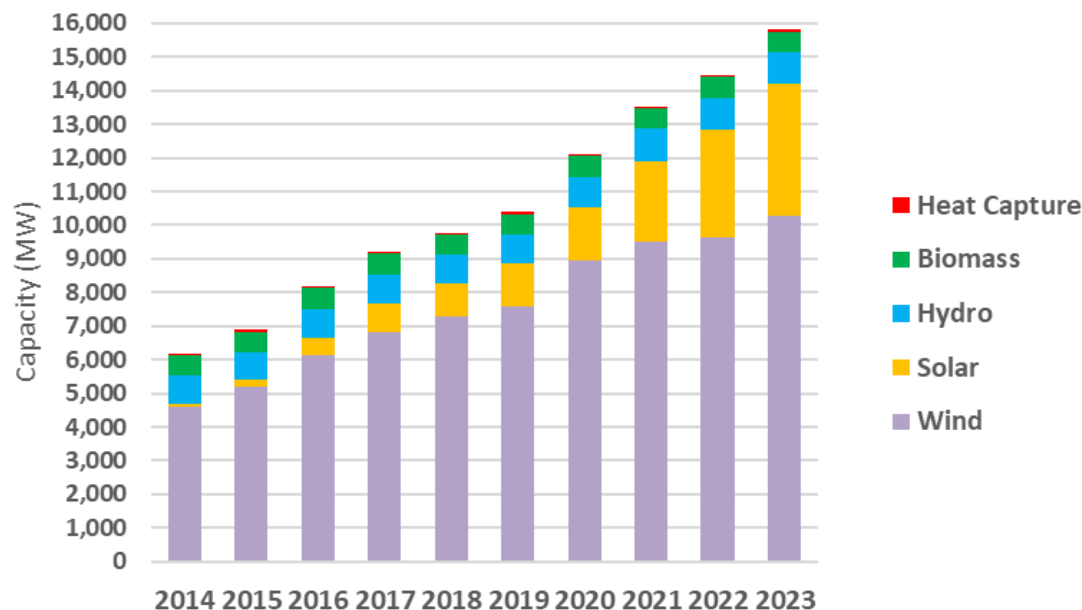
Co-op Renewable Growth is Accelerating

Total Capacity ~26 gigawatts including Federal Hydro

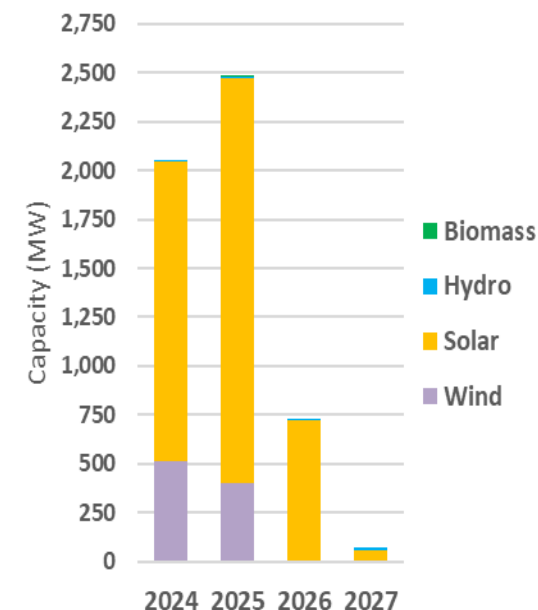


Renewable Growth (~90% through power purchase agreements), excludes Federal Hydro

Existing Capacity



Planned Capacity



Cooperative Sector NERC Registrations

- Cooperatives are registered for the following functions BA, TOP, PA/PC, TP, TSP, TO, RP, DP, GO, GOP
- Based on our extensive experience owning and operating the bulk power system, Cooperatives are able to provide input and expertise on NERC related activities.
- Cooperatives are actively engaged on standard drafting teams and NERC subcommittees.

Developing a Cooperative Voice

G&T Managers Association – Grid Management Committee

- Comprised of G&T CEOs and Senior level Executives (NERC Member Representatives Committee (MRC), Electric Sector Coordinating Council (ESCC), other Industry lead committees and individuals appointed by G&T CEOs)
- Purpose - discuss and provide direction for the development of Bulk Electric System (BES) policy and direction for positioning G&Ts and their Distribution Systems for reliable, secure and resilient operations

Process for Developing G&T Input

- Review actions requiring input/comments – with support from NRECA
 - Provide ideas/thoughts to begin dialogue
 - Establish deadlines
 - Collate input to develop consensus
- NRECA Submit/File comments on behalf of Cooperatives

Cooperative Strategic Messaging on Changing Energy Landscape - Reliability Issues





NERC MRC Informational Session Sector 5 Transmission Dependent Utilities

Brian Evans-Mongeon

Tom Heller

July 17, 2024



NERC By Laws

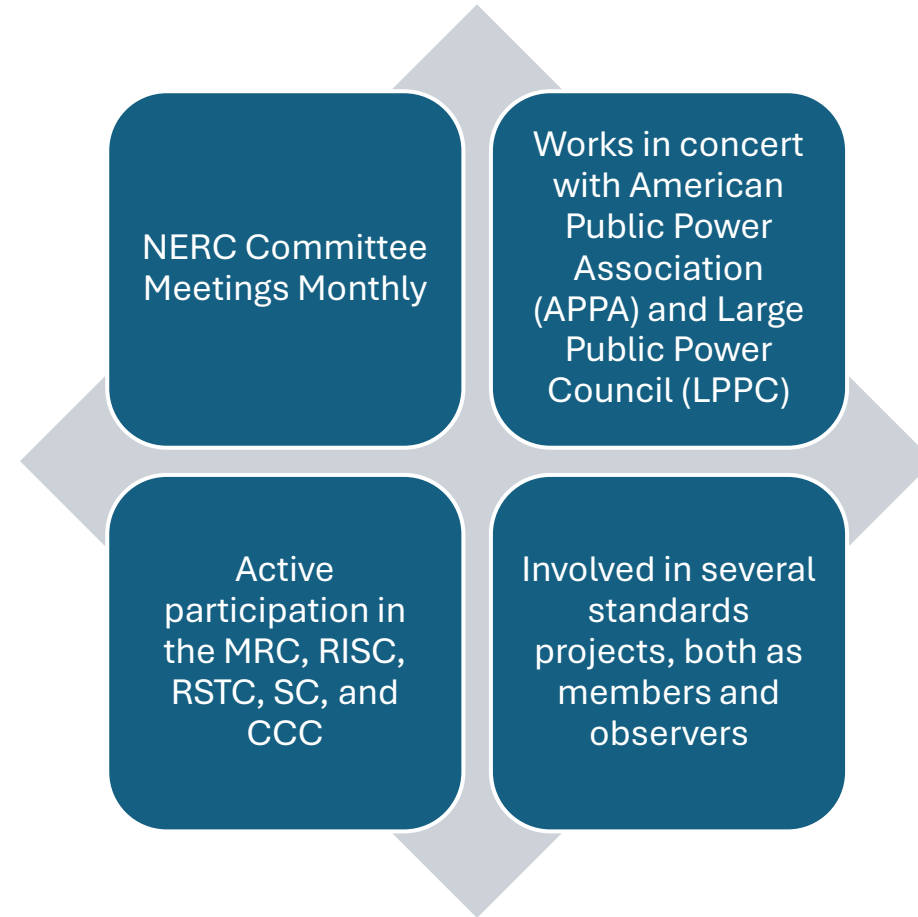
- Transmission-Dependent Utility (TDU) —
This Sector includes any entity with a regulatory, contractual, or other legal obligation to serve wholesale aggregators or customers or end-use customers and that depends primarily on the transmission systems of third parties to provide this service.

NERC MRC Sector 5 Membership

- Sixty-Four members
 - Public Power (heaviest concentration in MRO)
 - Investor-Owned Utility (IOU)
 - Rural Electric Cooperatives
- Entities are in 5 of the 6 NERC Regions
- Most TDU's are small and need assistance
 - Trade Associations (EEI, NRECA, APPA, LPPC)
 - Transmission Access Policy Advisory Group (TAPS)
 - Joint Action Agencies
 - Consultants



Representation Conducts:



TDU Issues



Risk Based Registration under Standards



Resource Adequacy, Cyber and Physical Security approaches appropriate to the scaled size of the Registered Entity



Cost of Compliance



Ownership and duties associated with Transmission to maintain separation of responsibilities are appropriate to the entities involved

TDU Issues (cont'd)



Enhanced visibility and transparency of ERO programs, both current and in the future. Need to understand direction and viability of the program efforts



Reliability, Sustainability, and Affordability commensurate with the engagement of the entity's needs



Sustainable Workforce positioning in light of the industry's movements on compensation and program needs



Merchant Electricity Generator

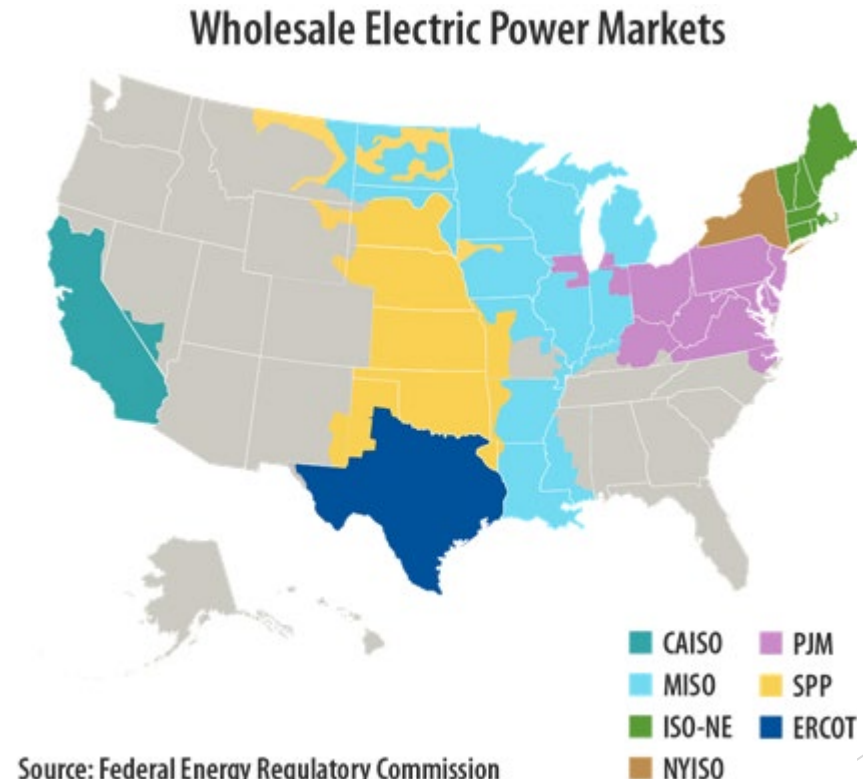
Sector 6 Representatives:
Mark Spencer, LS Power Development
Srinivas Kappagantula, Arevon Energy

Sector 6 Membership Criteria

- ▶ Owns or operates generating facilities that are not included in an investor-owned utility's rate base;
- ▶ Do not otherwise fall within the IOU, State/muni, Co-op, federal/provincial utility, or transmission-dependent utility sectors;
- ▶ includes but are not limited to cogenerators, small power producers, and all other nonutility electricity producers who sell electricity at wholesale; and
- ▶ May include their trade associations.

Sector 6 Membership Composition

- ▶ 37 merchant generation owners and operators are NERC members
- ▶ Members own at least 170,000 MW throughout Canada (3 provinces) and the continental United States (46 states)
- ▶ Sector 6 members are leading the resource mix transition with more than:
 - ▶ 2,600 MW batteries
 - ▶ 14,400 MW utility-scale solar
 - ▶ 36,000 MW onshore wind
- ▶ Sector 6 members mostly participate in the wholesale electric markets, but renewable developers have been able to develop renewable projects in all areas.



Merchant Generation at a Glance

- ▶ While Sector 6 members include both publicly-traded and privately-held companies, the preponderance are privately-held.
- ▶ Sector 6 includes what have colloquially been called independent power producers and renewable developers that rely on competitive markets for revenue opportunities rather than regulated cost-of-service rates.
- ▶ Equity investors assumes the economic risks of development and operation, as losses cannot generally be passed on to ratepayers.
- ▶ Ratepayers are insulated from long-term financial risk of uneconomic developments:
 - ▶ New projects are typically developed with short-term (relative to the useful life of the facility) off-take agreements or financial hedges; no guarantee of return on equity after the contracts role off.
- ▶ Traditionally, Sector 6 members have developed expertise in attracting tax equity investors for the development of eligible renewable projects with IOUs, munis/co-ops, and large end-users as off-take counterparties.

Sector 6 Member Coordination

- ▶ **Electric Power Supply Association (EPSA):** association of generator owners and power marketers, representing over 150,000 MW, advocating for competitive electricity markets as the most effective tool to deliver reliability through the transition and achieve national goals most cost effectively for ratepayers.
- ▶ **American Clean Power (ACP) Association:** representing over 800 energy storage, wind, utility-scale solar, clean hydrogen, and transmission companies. ACP is committed to meeting America's national security, economic and climate goals with fast-growing, low-cost, and reliable domestic power.
- ▶ **Solar Energy Industries Association (SEIA):** the national trade association for the solar and solar + storage industries representing over 1,200 member companies.
- ▶ **North American Generation Forum (NAGF):** an independent, member-driven organization of 80+ generation owners. A subset of NAGF members belong to Sector 6.



Sector 6 Registration & Priorities within NERC

- ▶ Merchant generators typically only register as GOs and GOPs. Affiliated businesses may require additional registration in aligned segments - e.g., TO or TOP, etc.
- ▶ Priorities:
 - ▶ Communicate merchant generation's role in driving the resource mix transition.
 - ▶ Bring focus to forward-looking reliability metrics that are effective and can be achieved through market mechanisms or responses.
 - ▶ Engage in policy and technical discussion to ensure that reliability goals are aligned with investment drivers for the most comprehensive, effective standards and programs.

Sector 6 - Current Key Challenges

- ▶ At least 2/3rds of Reliability Standards currently under development are Sector 6 related! Applicability of existing Reliability Standards to IBRs and revisions!
- ▶ Registration and NERC ROP changes to include Category 2 resources - aggregating to 20MVA and connected at 60kv or higher
- ▶ FERC Order 901- Reliability Standards for IBRs in these areas: data sharing, model validation, planning and operational studies, and performance requirements.
- ▶ Harmonization of different standards and meeting different requirements - NERC, ISO/RTO, ISO 2800, IEEE across the board from OEMs, Developers and Owner/Operators of IBRs.

Questions?



Sector 7 Electricity Marketer

Members Representative
Committee

Informational Session

July 17, 2024

Jeremy Carpenter

Matthew Fischesser

Electricity Marketer – Sector 7

Who

Tenaska, ACES, Shell Energy North America, GBE Power, The Energy Authority, Morgan Stanley Capital Group, Cleco Corporation, Natural Gas Supply Association, Florida Municipal Power Pool, TEC Energy

Purpose

Optimization, Enhance Reliability through Liquidity, Affordability

Geographical Scope

Structured and Unstructured Markets

Additional Aspects – Sector 7

-
- Trade Organizations?
 - Key Priorities / Strategic Initiatives – Optimization / Markets
 - Other Perspectives
 - Financial Products
 - Fuel Procurement / Scheduling
 - Modeling and Analytics
 - Operations

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Schedule and Preliminary Agenda Topics for the August 2024 Board, Board Committees, Technical Session, and MRC Meetings

RELIABILITY | RESILIENCE | SECURITY



Wednesday, August 14, 2024	
8:30 – 9:45 a.m.	Technology and Security Committee Meeting — <u>Open</u>
10:05 – 11:05 a.m.	Regulatory Oversight Committee Meeting — <u>Open</u>
11:25 a.m. – 12:25 p.m.	Finance and Audit Committee Meeting — <u>Open</u>
1:45 p.m. – 2:30 p.m.	Corporate Governance and Human Resources Committee Meeting — <u>Open</u>
2:45 – 5:15 p.m.	Technical Session — <u>Open</u>
Thursday, August 15, 2024	
8:30 – 10:30 a.m.	Member Representatives Committee Meeting — <u>Open</u>
11:00 a.m. – 1:00 p.m.	Board of Trustees Meeting— <u>Open</u>

**All meeting times are in Pacific Time Zone*

Technology and Security Committee

- E-ISAC Operations Update
- NERC Enterprise Analytics Update

Regulatory Oversight Committee

- FERC Order 901 Update
- Align History, Governance, and Maturity Update
- Regional Canadian Activities Update

Finance and Audit Committee

- Second Quarter Unaudited Summary of Results
- NERC, Regional Entity, and WIRAB Proposed 2025 Business Plans and Budgets and Associated Assessments Review

Corporate Governance and Human Resources Committee

- Standing Committees Oversight Review
- People and Culture Update

- CISA Extreme Weather Outreach – Impacts to Transmission Systems Update
- Artificial Intelligence Applications Update
- System Performance – May 2024 Solar Storm Update
- Interregional Transfer Capability Study Report Review
- Bulk Power System Awareness Update

- Approve NERC Bylaws Amendments
- Board Nominating Committee Report
- BP&B Input Group Report
- Update on FERC Activities
- Energy Adequacy Panel
- Responses to the Board's Invitation for MRC Input
 - ERO Enterprise Long-Term Strategy
- Additional Discussion on Third Quarter Open Board Committee, Technical Session, and Board Meetings
- Update on Implementation of MRC Effectiveness Recommendations
- Schedule for MRC Officer and Sector Elections

- Governance Documents Amendments
- Board Committee Reports
 - Accept Q2 Statement of Activities
 - Approve 2025 BP&Bs and Assessments
- Semi-Annual Standing Committee Reports to the Board
- Standards Quarterly Report and Actions
 - Adopt CIP-003
 - Adopt Physical Security
- Semi-Annual Review of the Achievements of the NERC Work Plan Priorities Update
- Approve Proposed NERC Bylaws Amendments
- Approve Proposed SERC Bylaws Amendments
- NAESB, NATF, and NAGF Reports