Annual Meeting Coordinated Electricity Planning

September 13–15, 2021

Meeting Summary

NATIONAL COUNCIL ON ELECTRICITY POLICY

About NCEP

The National Council on Electricity Policy (NCEP) is a platform for all state-level electricity decision-makers to share and learn from diverse perspectives on the evolving electricity sector. The NCEP community includes representatives from public utility commissions, air and environmental regulatory agencies, governors' staffs and state energy offices, state legislatures, and consumer advocates. NCEP is administered by the National Association of Regulatory Utility Commissioners (NARUC).

NCEP specifically serves as a forum for collaboration around grid-related topics at the state, regional, and national levels, offering a unique opportunity for state electricity decision-makers throughout the country to examine the ways new technologies, policies, regulations, and markets impact state resources and the bulk power system.

Premise for 2021 Annual Meeting

Since the 2018 annual meeting in Denver, CO, there has been a focus on exploring intersections between the T & D systems by exploring opportunities for coordination across operations, markets, and now planning.

Emerging technologies, decreasing costs, consumer preferences, new energy service providers, and state and local efforts are driving significant growth in distributed energy resources (DERs) such as solar, storage, energy efficiency, demand management, and microgrids. As more customers install DERs, electricity planning needs to account for the quantity, location, capabilities, load, and production profiles of resources on the distribution system and the bulk power system.

With utilities making capital expenditures of more than $100 billion per year on behalf of customers, it is essential to consider the full range of investment options across the electricity system for cost-effectively meeting current and emerging grid needs such as increased flexibility, variable renewable energy integration, and resilience.

Changes are needed to both longstanding and emerging planning processes (such as integrated resource planning, distribution system planning, and transmission planning) to align goals and analyses of investments to cost-effectively meet grid requirements, customer needs, and state policy goals. New, more comprehensive approaches to electricity system planning and a more holistic analysis of system and customer needs and solutions can: • Improve grid reliability and resilience • Optimize use of new

and existing resources • Avoid unnecessary costs to ratepayers • Support state policy priorities • Increase the transparency of grid-related investment decisions.

The foundation for this meeting's content (and the reason for addressing planning after operations and markets) is the NARUC-NASEO Task Force on Comprehensive Electricity Planning. From early 2019 - early 2021, 15 state teams of NARUC and NASEO members worked together to develop innovative visions for how electricity system planning can be improved. Members created a series of roadmaps that describe how the building blocks of historically siloed resource, distribution, and transmission planning processes can be reconfigured for greater alignment, increased transparency, and more robust stakeholder engagement.

In addition, FERC officially appointed 10 NARUC members to a new FERC-NARUC Transmission Task Force that is the result of collective agreement that transmission planning and related issues need to be re-examined and modified to fit the times. The new FERC-NARUC Transmission Task Force will have its first meeting in November this year (2021).

Brinch Award for Collaboration in Public Service

On September 13, 2021, NCEP had the honor of awarding Tom Sloan with the Jan Brinch Award for Collaboration in Public Service. Tom has an extensive resume of community, state, and national involvement in electricity, and broader societal, issues and was a true representative for the people of Kansas. His collaboration was admirable and in turn, he said that collaborating with all of us guided his own public service. The openness to dialogue from him and others to move the needle together is inspiring. Read the full press release.

Day 1 Recap

Energy planning is difficult. The United States has 53 different jurisdictions with their own sets of policies on top of essential needs like responding to weather events. The foundation for Day 1's content is the NARUC-NASEO Task Force on Comprehensive Energy Planning. 15 state teams worked together in five cohorts to improve planning - Silver, Jade, Turquoise, Coral, Amber. The teams looked at how to break down traditionally siloed planning processes to increase transparency and improve planning.

As Arkansas PSC Chair Ted Thomas noted, the roadmaps are for everybody to compare where their jurisdiction has similarities, and the blueprint is how they can think about adjusting the processes in their state. Based on the presentations, Rhode Island is looking at how comprehensive planning supports their policy goal of 100% renewable electricity by 2030 and in Michigan, how the Task Force efforts work into the MI Power Grid Initiative.

Planning can enable a more cost-effective grid to the benefit of all. As North Carolina PUC Consumer Advocate Chris Ayers noted, there are opportunities to improve utility collaboration, modeling capabilities, and interconnection processes.

Finally, stakeholders representing a solar company, environmental advocacy organization, and energy efficiency provider shared their thoughts on stakeholder involvement in electricity planning and how state agencies can identify and overcome barriers to stakeholder participation.

Day 2 Recap

On Day 2, system operators and planners discussed how they have approached modern planning implementation.

The day kicked-off with perspectives from three federal leaders seeking to address national planning issues related to distribution grid modernization, interstate electric transmission, and transportation interdependencies.

Commissioner Brown-Bland then led a panel with regional operators and experts on considerations for resource adequacy. Michael Milligan shared considerations for rethinking historical analysis for forecasting load and how focusing on energy-first planning is a different approach than capacity-first planning. Then, leaders from two independent system operators (PJM and NYISO) shared their perspectives on coordinated electricity planning, how resource adequacy impacts their decision making, their thoughts on managing peak demand, and how policies such as FERC Order 2222 and state policy goals play a role in their outlook.

Virginia Air Director Michael Dowd took on diving deep into utility planning with Duke Energy in the Carolinas and Hawaiian Electric Company. North Carolina and Hawaii participated in the task force, so many thanks for walking through the planning process from a complementary utility perspective. States can look at the cohort teams' roadmaps for more information. Nate Gagnon went into detail on Duke's Integrated System and Operations Planning (ISOP) which is their integrated long-term planning effort to define future system needs. Hawaiian Electric Company's Colton Ching outlined their planning principles and how they have engaged stakeholders and agencies throughout their process.

Finally, Consumer Advocate Jennifer Easler moderated the Current Issues panel. Panelists reflected on the work of the Comprehensive Planning Task Force, how planning interacts with federal decisions such as the FERC Transmission ANOPR and Order 2222, how markets can interact with planning, and provided thoughts on how states can engage in a rigorous planning process.

Day 3 Recap

Day 3's setup was more like a workshop and the sessions focused on how to bring the state and system operator perspectives from the prior two days together to develop a comprehensive plan for the future.

During the first session – "Regional State Perspectives," Ben Sloan from OMS started by giving an overview of MISO's needs to modernize the grid for 2-way power flows and incorporate new technologies with minimal rate impacts. Challenges faced will be rooted in information sharing and collaboration. OMS and MISO teamed up on a 5-year outlook, the OMS-MISO Resource Adequacy survey, and regional resource assessment. Next was Branden Sudduth of Western Electric Cooperative (WECC) which works with western utilities, regulators, other entities, and participants. Some of the challenges in the West include it being in a pattern of transition and system reliability under many threats: intense and widespread wildfires, drought, extreme weather, etc. Overall, the west is looking to change their approach for resource and transmission planning and better predict needs for the future. Up next was Paul Suskie from SPP, which operates in both the eastern and western interconnect. SPP and its' regional state committee participate in their 2222 Task Force and the new Resource Availability Task Force.

In the Snapshot Sessions, discussion leaders shared visions for collectively working together to evolve capabilities to accelerate comprehensive electricity planning. Samir Succar focused on opportunities to improve comprehensive planning and analytical capabilities that enable us to achieve objectives and policy goals. He also encouraged participants to increasingly expand their view on opportunities to include resilience, decarbonization, energy storage, environmental justice, air quality, electrification, co-optimization, customer behavior. Paul DeMartini focused on planning for operational coordination. He emphasized how various operating mechanisms, used to initiate a response for a service, will have an impact on how coordination needs to happen. His work is focused on identifying scale and timing factors and identifying institutional and practical constraints.

Karl Rabago discussed the benefits of building local solar energy. He presented on the results of a new model from--- Vibrant Clean Energy that showed removing CO2 could save $473B by 2050 in capacity and system costs, more than 2 million jobs could be created, it would result in building 223 GW of local solar and could unlock the full potential of utility resources. Mr. Rabago's takeaway is that local, clean resources are often the most cost-effective pathway for the future. To close out this discussion, Jeff Ackerman spoke about regulatory process innovation and emphasized qualitative vs. quantitative analyses as being at the heart of the process. He also emphasized co-optimization and how many areas, Colorado included, focus on planning too narrowly. Instead, fewer, larger planning proceedings could be more optimal.

At the end of each day, the audience participated in a roundtable to share their examples of planning and resources. The resources have been added to the T&D Resource Catalog.