

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Reliability Technical Conference

)

Docket No. AD21-11-000

**POST-CONFERENCE COMMENTS OF
THE AMERICAN PUBLIC POWER ASSOCIATION,
THE LARGE PUBLIC POWER COUNCIL, AND
THE TRANSMISSION ACCESS POLICY STUDY GROUP**

I. Introduction and Summary of Comments

These comments are submitted jointly by the American Public Power Association (“APPA”), the Large Public Power Council (“LPPC”) and the Transmission Access Policy Study Group (“TAPS”) (together, “Public Power Associations”), pursuant to the Commission’s January 7, 2022 Notice Inviting Post-Technical Conference Comments. The comments underscore and supplement the live testimony and statement of Roy Jones, Chief Executive Officer of ElectriCities of North Carolina, Inc. (“ElectriCities”), filed in this docket on behalf of Public Power Associations for discussion at the September 30, 2021 conference in this docket (“Jones’ September 30 Statement”).

These comments emphasize two themes addressed by Mr. Jones, and supported by other participants at the September 30 conference: (1) the Commission and its government partners can meaningfully advance supply chain security by supporting the development of third-party accreditation or certification plans for significant electric industry suppliers and vendors; and (2) the Commission and the North American Electric Reliability Corporation (“NERC”) have an important role to play in facilitating the transition to a reduced carbon future for the electric grid by honestly addressing the reliability challenges posed by increasing levels of intermittent resources on the grid.

APPA is the national service organization representing the interests of not-for-profit, state, municipal, and other locally owned electric utilities in the United States. More than 2,000 public power systems provide over 15 percent of all kilowatt-hours sales to ultimate customers and serve over 49 million people, doing business in every state except Hawaii. Over 250 public power utilities are registered entities subject to compliance with mandatory NERC Reliability Standards.

LPPC is the association of the 27 largest state-owned and municipal utilities in the nation. LPPC's members are located throughout the nation, both within and outside the boundaries of regional transmission organizations and independent system operators. The members comprise the larger, asset-owning utilities in the public power community, owning approximately 90 percent of the transmission assets owned by non-federal public power entities. LPPC members are also members of APPA.

TAPS is an association of transmission-dependent utilities ("TDUs") in 35 states promoting open and non-discriminatory transmission access.¹ TAPS members have long recognized the importance of grid reliability. As TDUs, TAPS members are users of the Bulk Power System and are highly reliant on the reliability of facilities owned and operated by others for the transmission service required to meet TAPS members' loads. In addition, many TAPS members participate in the development of and are subject to compliance with NERC Reliability Standards.

¹ See <https://www.tapsgroup.org>. Jane Cirrincione, Northern California Power Agency, chairs the TAPS Board. Dave Osburn, Oklahoma Municipal Power Agency, is TAPS Vice Chair. Terry Huval is TAPS Executive Director.

II. Comments

A. Public Power Associations Fully Support Development of a Third-Party Certification Process for Significant Industry Suppliers and Vendors

Public Power Associations believe the Commission can make a valuable contribution to grid security by supporting the development of supplier accreditation or certification programs calling for industry vendors to step up to provide evidence of security measures that will protect the grid when their products are employed. Under NERC's Critical Infrastructure Protection ("CIP") supply chain standard (CIP-013), Responsible Entities are obligated to develop supply chain cyber security risk management plan(s) for their high and medium impact BES Cyber Systems. Mr. Jones and other panelists highlighted the challenges associated with requiring utilities to assess the cybersecurity practices of their vendors,² pointing to the reality that Responsible Entities can be faced with limited visibility into – and control over – vendors' internal security practices.³ Public Power Associations are encouraged that this issue received significant attention at the technical conference,⁴ and we address a number of points from that discussion below.

As Mr. Jones further explained, Public Power Associations have supported the development of third-party accreditation or certification plans for significant suppliers,⁵ and the concept finds support in NERC implementation guidance, which endorses "third party

² See, e.g., Tr. at 34-35 (Jones); Tr. at 40-41, 53 (Sterling).

³ See Jones' September 30 Statement at 3-4.

⁴ See, e.g., Tr. at 95-98 (multiple panelists); Tr. at 186-95 (multiple panelists).

⁵ For example, APPA and the National Rural Electric Cooperative Association ("NRECA"), with input from LPPC and TAPS, promoted a supplier accreditation approach to enhancing supplier security in their whitepaper "Managing Cyber Supply Chain Risk – Best Practices for Small Entities." Available at: <https://www.nerc.com/pa/comp/SupplyChainRiskMitigationProgramDL/Managing%20Cyber%20Supply%20Chain%20Risk.pdf>.

certification” as a recommended element of a compliance plan.⁶ A vendor accreditation framework would appropriately place responsibility to implement best security practices on suppliers. Mr. Jones urged the Commission to use its influence with governmental partners at the Department of Energy (“DOE”) and the Department of Homeland Security (“DHS”) to bring vendors to the table to discuss certification criteria and a consensus-based approach to participation.⁷ Federal coordination on this issue is particularly warranted, Mr. Jones observed, given that risks to the reliability of the BES have ramifications far beyond the electric industry.⁸ Ms. Sterling and others echoed Mr. Jones’ observation that support from the federal government was warranted, suggesting that a “whole of government” approach was needed to address supply chain cybersecurity.⁹

At the technical conference, much of the discussion on this issue was framed in terms of whether the federal government should develop “white lists” or “black lists” of suppliers or components, with panelists generally expressing skepticism that such lists could be effectively implemented and maintained.¹⁰ Public Power Associations appreciate these concerns, and, in urging federal government involvement, we clarify that we do not envision a program focused on approving or prohibiting particular suppliers or components. Mr. Banerji’s reference to the Federal Risk and Authorization Management Program (“FedRAMP”) as a model is closer to the

⁶ See <https://www.nerc.com/pa/comp/Pages/SupplyChainRiskMitigationProgramFAQ.aspx>. The approach has been promoted through efforts of the North American Transmission Forum (“NATF”). See, e.g., <https://www.natf.net/docs/natf/documents/resources/supply-chain/natf-cip-013-1-implementation-guidance.pdf> and <https://www.natf.net/docs/natf/documents/resources/supply-chain/natf-cyber-security-supply-chain-risk-management-guidance.pdf>.

⁷ See Tr. at 34-35, 95-96 (Jones); Jones’ September 30 Statement at 3-4.

⁸ Jones’ September 30 Statement at 3-4; see also Tr. at 100 (Robb).

⁹ Tr. at 96-97 (Sterling); Tr. at 99-100 (Robb).

¹⁰ See, e.g., Tr. at 99-100 (Robb); Tr. at 100-01 (Sterling); Tr. at 186-95 (multiple panelists); Tr. at 236-238 (Halverson).

mark.¹¹ APPA and LPPC have suggested, for example, that DOE could work with manufacturers to identify a method of certification that can identify finished goods, including all subcomponents that comply with standards. DOE may also develop a standard for vendors of equipment that connects to the bulk power system that involves a defined process for review of the code in software and chip sets in this equipment. Public Power Associations emphasize, however, that they are not prescribing any particular approach at this time; rather, we urge the Commission, in partnership with DOE and DHS to convene industry stakeholders in pursuit of a framework that would not simply place the onus on electric utilities to assess the cybersecurity hygiene of vendors over which they have limited influence.

Several panelists also suggested that more robust information sharing could help address some of the difficulties with assessing supply chain cybersecurity.¹² This is certainly true as far as it goes; Mr. Jones specifically emphasized the importance of sharing actionable information and recommendations with industry through NERC's Electricity Information Sharing and Analysis Center ("E-ISAC").¹³ But while information sharing is an important aspect of supply chain security, it is not enough, by itself, to address the problems associated with asking individual utilities to evaluate vendors into which they have limited visibility.¹⁴

B. Resource Adequacy Challenges

As Mr. Jones put it in his September 30 Statement, "[k]eeping the lights on during a dramatic change in the nation's resource mix may be the single most important challenge of the

¹¹ Tr. at 239-41 (Banerji).

¹² Tr. at 100 (Robb); Tr. at 191 (Halvorsen).

¹³ See Tr. at 36-37 (Jones); Jones' September 30 Statement at 8-10; *see also* Tr. at 100-01 (Sterling).

¹⁴ See Tr. at 97 (Sterling).

mid-21st century for utility managers and state and federal regulators.”¹⁵ The speakers at the September 30 conference were in broad agreement with that sentiment.¹⁶ Indeed, when asked by Chairman Glick to identify a “top issue” of priority for focus, panelists widely responded by highlighting the industry’s changing resource mix as among its most significant priority and challenge.¹⁷ NERC CEO Jim Robb observed “it’s clear that reliable balancing resources are needed to support increasing levels of variable generation,” and that in the near-term, “natural gas is going to remain the balancing resource of choice.”¹⁸ Commissioner Rendahl identified a “combination of the rapid transformation of the energy resources as well as the issues of resource adequacy” as being of paramount importance,¹⁹ adding that “ensuring resource adequacy...is an immediate issue in many regions...”²⁰ And Chairman Cheryl LaFleur noted that “the bulk electric system is experiencing rapid changes in the generation mix,” and that such transformation is occurring “in real time, very quickly.”²¹ As Mr. Jones further highlighted, NERC’s 2021 ERO Reliability Risk Priorities Report identifies this (“Grid Transformation”) as the “Risk Profile #1” for the industry, defining it as “the shift away from conventional synchronous central-station generators toward a new mix of resources that include natural-gas-fired generation; unprecedented proportions of non-synchronous resources, including renewables and battery storage; demand response; smart- and micro-grid; and other emerging technologies.”

¹⁵ Jones’ September 30 Statement at 4-5.

¹⁶ See, e.g., Tr. at 24:15-20; 29:17-18; 31:6-7; 40:7-12 (multiple panelists).

¹⁷ See Tr. at 49:5-9; 53:22-24; 57:7-8 (multiple panelists).

¹⁸ Tr. at 18:25-19:5 (Robb)

¹⁹ Tr. at 53:20-25 (Rendahl).

²⁰ Tr. at 54:18-19 (Rendahl).

²¹ Tr. at 31:6-7; 49:5-9 (LaFleur).

Concerns identified in NERC's 2020 Long-Term Reliability Assessment²² become acute when one looks out over the next ten years, a period in the range of most planning cycles, as Mr. Jones attested.²³ This picture is depicted in detail in NERC's 2020 LTRA, in which shortcomings in Resource Adequacy (the ability of the electricity system to supply the aggregate electric power and energy requirements of the electricity consumers at all times, taking into account scheduled and expected unscheduled outages of system components) is addressed. Grid resilience in the face of extreme weather events, is a critical focus of the 2020 LTRA.

That report detailed the following risks:²⁴

- “Nearly all parts of the Western Interconnection (WI) with the exception of Alberta, face heightened loss of load risk. The recent experience during the wide-area heat wave in August 2020 provides evidence of the challenges faced in the WI to reliably serve the changing demand profile with the evolving resource mix. In the Northwestern United States and Rocky Mountain areas, probabilistic studies are beginning to show potential for loss of load as well.”
- “In the Midcontinent Independent System Operator (MISO) area...[r]eserve margin projections of on-peak capacity are falling and are projected to be below Reference Margin Level targets beginning in 2025.”
- “Planning for long-term resource adequacy is becoming increasingly complex with a resource mix that is more unpredictable and less energy-assured.”
- “As more solar and wind generation is added, additional flexible resources are needed to offset these resources’ variability.”

As Mr. Jones further testified, the 2020 LTRA highlights solutions that should be front-of-mind for the Commission and for industry. These include coordination among regulators and industry in supporting development of flexible ramping and load-following resources, along with energy-assured generation; as well as developing gas pipeline infrastructure in areas that depend

²² Available at: https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2020.pdf (“2020 LTRA”).

²³ Jones’ September 30 Statement at 5-6.

²⁴ 2020 LTRA at 6-9. Addressed in Jones’ September 30 Statement at 5-6.

on gas-fired generation, particularly to backstop intermittent generation.²⁵ On the subject of needed natural gas pipeline capacity, NERC's Jim Robb stressed that the industry must "acknowledge that electric system reliability is increasingly dependent on the gas system, and ask whether enough investment is being made into the reliability and security of that infrastructure."²⁶

As NERC itself has acknowledged, its authority in this area is generally limited to the studies it is authorized and required to produce, and to serving as a valuable platform for advancing solutions others will implement. NERC lacks the authority to promulgate reliability standards for resource adequacy, or to compel the construction of generation or transmission. Nonetheless, the important role that NERC has in identifying reliability challenges and in encouraging policymakers to devise solutions should not be underestimated, so long as policy makers are paying attention. As Commissioner Ann Rendahl commented, NERC and regional entities will play a key role and add much value to these conversations by informing entities of the specific research being done around Resource Adequacy, and how that research and analysis can inform decision-making, choice of resources, and other improvements.²⁷

Within ISOs/RTOs, as Mr. Jones observed,²⁸ debates over Resource Adequacy requirements and certainly over mandatory capacity markets has been quite controversial. And as Mr. Jones further testified, Public Power Associations urge the Commission to steer clear of creating new Eastern-style mandatory capacity markets where they do not now exist.

Predominant among the objections to that framework is the extent to which it intrudes on state

²⁵ Jones' September 30 Statement at 7-8.

²⁶ Tr. at 19:12-15 (Robb).

²⁷ Tr. at 54:1-14 (Rendahl).

²⁸ Jones' September 30 Statement at 8.

and local decision-making as to the generation resource base that best meets state and local policy objectives.²⁹

Outside ISOs/RTOs, state authorities and municipal utilities have, and should continue to have, primary authority for assuring Resource Adequacy, as again Mr. Jones testified.³⁰ The vertically integrated nature of the utility model in non-RTO regions, ensures that state and municipal authorities may direct the construction of the needed types and amount of resources. Nonetheless, the increasingly integrated nature of the grid and increased resource competition has driven a discussion over the creation of voluntary frameworks for regional Resource Adequacy. The ongoing effort to develop a regional approach to Resource Adequacy being undertaken by members of the Northwest Power Pool is such an instance. And the voluntary development of the Extended Day-Ahead Market, which extends participation in the California Independent System Operator Corporation's (CAISO) day-ahead market to the Western Imbalance Energy Market (EIM) entities located outside of the CAISO, would improve integration of renewable resources over a large area. By next year the EIM footprint will represent approximately 80% of the load in the Western Interconnection.³¹ To the extent the Commission has authority over these arrangements, Public Power Associations urge it to exercise substantial deference to regional solutions when they are presented to the Commission.

Above all, Public Power Associations urge the Commission dispassionately to observe and, to extent within its jurisdiction, address measures necessary to protect grid reliability as the nation's generating resource base changes. Public Power Associations are committed to

²⁹ *Id.*

³⁰ *Id.* at 8-9.

³¹ See <https://www.aiso.com/Documents/Western-EIM-achieves-record-setting-739-million-in-benefits-for-2021.pdf>

reducing their greenhouse gas emissions through a variety of means, and certain states and federal policymakers are promoting policies designed to limit carbon output. But the Associations also believe this transition will be at risk if insufficient care is taken to ensure grid reliability. To ensure this does not happen, the Commission must be clear in its assessment of the data and engineering that is addressed to the system impact of changing resource mix, it must advise sibling agencies accordingly, and it must take appropriate action to protect grid reliability where it has the authority to do so.

Respectfully submitted,

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