

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

**New England Winter Gas-Electric Forum**

**Docket No. AD22-9-000**

**JOINT COMMENTS OF THE NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION AND NORTHEAST POWER COORDINATING COUNCIL**

**June 12, 2023**

The North American Electric Reliability Corporation (“NERC”) and the Northeast Power Coordinating Council (“NPCC”) submit advance comments for the New England Winter Gas-Electric Forum on June 20, 2023. These comments address the New England winter reliability outlook described in recent assessments by NERC and NPCC. The reliability challenges of the New England winter require extensive coordination and dialogue among diverse industry stakeholders, regulators, and policymakers. Accordingly, NERC and NPCC greatly appreciate the opportunity to participate in the forum and applaud the Commission for organizing this important engagement that convenes the appropriate people.

**I. About NERC and NPCC**

NERC is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC develops and enforces Reliability Standards; annually assesses seasonal and long-term reliability; monitors the bulk power system (“BPS”) through system awareness; and educates, trains, and certifies industry personnel. NERC’s area of responsibility spans the continental United States, Canada, and the northern portion of Baja California, Mexico. NERC is the Electric Reliability Organization (“ERO”) for North America, subject to oversight by the FERC and governmental authorities in Canada. NERC works with the six

Regional Entities,<sup>1</sup> which collectively form the Electric Reliability Organization Enterprise (“ERO Enterprise”). NERC's jurisdiction includes users, owners, and operators of the bulk power system, which serves nearly 400 million people.

NPCC a 501(c)(6) corporation in the state of New York is also a not-for-profit international regulatory authority responsible for promoting and improving the reliability of the international, interconnected bulk power systems in Northeastern North America through (i) the development of Regional Reliability Standards and compliance assessment and enforcement of continent-wide and Regional Reliability Standards, (ii) coordination of system planning, design and operations, and assessment of reliability (collectively, Regional Entity activities), and (iii) the establishment of Regionally-specific criteria, and monitoring and enforcement of compliance with such criteria (collectively, Criteria Services activities). The NPCC Region covers nearly 1.2 million square miles and is populated by more than 56 million people. NPCC's area of responsibility includes the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont, and the four Canadian provinces of New Brunswick, Nova Scotia, Ontario, and Québec. From a net energy for load perspective, NPCC is approximately 44% U.S. and 56% Canadian; while approximately 65% of Canadian net energy for load is within the NPCC Region.

## **II. The New England Winter – Recent NERC and NPCC Risk Assessments**

Assessments by NPCC and NERC found that New England has historically had adequate generation and transmission capacity to meet periods of peak winter demand, demonstrating the effectiveness of industry participants and regulators to successfully manage the system under a variety of stressful winter conditions. However, a variety of current trends may challenge New England's ability to manage future winter risk. Specifically, due to New England's reliance on global LNG supplies, constrained natural gas pipeline infrastructure and fuel oil inventories, the region is at increased risk

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<sup>1</sup> The six Regional Entities include the following: Midwest Reliability Organization, Northeast Power Coordinating Council, Inc., ReliabilityFirst Corporation, SERC Reliability Corporation, Texas Reliability Entity, Inc., and Western Electricity Coordinating Council.

during periods of extended cold weather when the system is stretched beyond normal expected conditions. NERC and NPCC previously reviewed these challenges in comments filed on the docket for the previous forum held on September 8, 2022. Comments below address the New England winter reliability outlook as described in recent assessments, and actions to mitigate risk.

In recent years, NERC’s annual *Winter Reliability Assessment* has consistently projected concern for potential energy shortages in New England. For the New England winter of 2018, NERC warned, “A growing concern is whether there will be sufficient energy available to satisfy electricity demand during an extended cold spell given the evolving resource mix and fuel delivery infrastructure.”<sup>2</sup> Elaborating on potential weather-induced fuel disruptions, NERC said, “Despite having sufficient capacity resources, power system operations could become challenging during periods of cold weather if fuel constraints impact the ability of generators to obtain fuel to produce electricity.”<sup>3</sup>

In the most recent analysis, NERC’s *2022-2023 Winter Reliability Assessment*<sup>4</sup> warns that a large portion of the North American BPS is at risk of having insufficient energy supplies during severe winter weather. Across North America, the assessment identifies areas where high peak-demand projections, inadequate generator weatherization, fuel supply risks, and limited natural gas infrastructure contribute to reliability risk. In New England, the region is again at risk of energy shortages during extreme winter conditions. Specifically, potential constraints on the fuel delivery systems, coupled with the limited inventory of liquid fuels, may exacerbate the risks for fuel-based generator outages and output reductions that result in energy emergencies during extreme weather. During the 2022-2023 winter, operators were closely monitoring LNG availability as geopolitical circumstances caused supply uncertainty. LNG terminals in New England help alleviate pipeline constraints by providing access points for LNG shipped in tankers to be vaporized and injected into pipelines that serve natural gas-fired generators.

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<sup>2</sup> [2018/2019 Winter Reliability Assessment](#), NERC, 16.

<sup>3</sup> *Ibid*, 16.

<sup>4</sup> [2022-2023 Winter Reliability Assessment](#), NERC.

NPCC coordinates specific operational communications with NPCC and neighboring Reliability Coordinators Control Room Managers on a daily, weekly, and ad hoc basis, including specific operational communications to ensure that potential system changes and outages for operations are properly reviewed, and to provide regional coordination whenever adverse system operating or weather conditions are expected or encountered.

During the past five years, NPCC has held more than 150 total Emergency Preparedness calls, consisting of calls related to abnormal conditions (extreme temperature and severe weather) and calls related to pandemic concerns, in addition to other communications regarding system conditions in preparation for or in response to adverse system conditions (e.g., forest fires).

NPCC performs its regional pre-seasonal summer and winter reliability assessments<sup>5</sup> accounting for a wide range of scenarios and extreme weather conditions, including forecast demand uncertainty, unexpected generator plant outages, transmission constraints between Regions and within NPCC, implementation of operating procedures, estimated impact of demand response programs, and additional capacity unavailability coupled with reduced transfer capabilities. The results supplement and complement the respective NERC assessments and illustrate the range of seasonal reliability risk estimated Base Case (expected) and Severe Case (stressed) conditions from a multi-area probabilistic perspective.

NPCC also participates in the electric-gas operations reliability coordination efforts of the New York ISO, ISO-New England, and the Northeast Gas Association to promote cross-sector communications, awareness, and information sharing.

NPCC actively participated in the February 2021 Winter Storm Uri<sup>6</sup> joint inquiry, and is currently participating in the ongoing December 2022 Winter Storm Elliott joint inquiry, as well as the joint black

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<sup>5</sup> See: <https://www.npcc.org/library/reports/seasonal-assessment>

<sup>6</sup> FERC - NERC - Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South Central United States - <https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and>

start unit availability study in the ERCOT footprint during cold weather conditions (Recommendation 26 – from the February 2021 Joint FERC-NERC-Regional Entity Inquiry report).

Other recent related NPCC activities include the formation a technical committee, consisting of members of the gas transmission and distribution community as well as the electric utility industry. This committee identifies future NPCC Regional gas-electric interdependency risk(s) and future gas-electric interdependencies with recommendations for mitigating actions. NPCC also conducted a manual load shedding exercise in 2022 for NPCC system operators and load shedding entities – in response to the findings of the Winter Storm Uri joint inquiry report.

In 2023, NPCC plans to conduct two roundtable discussions with gas and electric entities within the NPCC region to share information regarding critical natural gas-electric load interdependencies and identify opportunities that mitigate the risks of critical natural gas-electric load interdependencies within the NPCC region and provide a Cold Weather Preparedness Workshop for NPCC members.

### **III. Conclusion**

NERC and NPCC believe the New England Winter Gas-Electric Forum is a vitally important engagement, convening the wide array of diverse stakeholders that are essential to addressing this regional challenge. NERC and NPCC are fully committed to advancing collaborative and constructive solutions.

Through extensive regional planning, operational ingenuity, close coordination among industry participants, and collaboration with regulators, New England has historically and effectively managed natural gas supply risk during winter weather extremes. While this track record is laudable, near-miss events underscore how New England’s transforming generation resource profile coupled with the expectation of prolonged extreme cold weather now challenge the region’s ability to maintain reliability. And as recent events demonstrate, extreme weather conditions are becoming more frequent, characterized

by hotter or colder temperatures, longer duration, with broader areas of the continent being impacted – and need to be increasingly part of the design and operational planning of the combined gas and electric system. Until suitable alternatives that can mimic gas-fired generation’s high flexibility to integrate variable energy resources that replace the kilowatt-hours produced from natural gas-fired generation are available and deployed at scale, the natural gas system will remain essential to electric reliability in New England.

Given retirements of coal and nuclear units and the expansion of wind and solar, natural gas is a resource that provides both needed energy to serve customers and the flexibility to integrate variable energy resources. The fuel delivery system of natural gas is different because of limited in-market/on-site fuel storage and, as such, the gas and electric systems increasingly need to be viewed through a unified lens and planned and operated in a much more highly coordinated manner. At a minimum, this will require increased collaboration and coordination between the sectors and the regulatory bodies overseeing them and may require a reconsideration of the regulatory models governing both sectors for reliability purposes.

Finally, while New England’s aggressive action to address decarbonization of the electric grid is laudable, balancing those goals with reliability and resilience coupled with access and affordability is critical. This is the vexing “trilemma” that policy makers and regulators always need to keep in mind. NERC and NPCC fully believe that the great energy transition underway will continue due to comparative resource economics and customer preferences with supportive policy actions. However, the pace of the transition must be practically managed given the essentiality of reliable and affordable electric service to nearly every aspect of modern life. Until alternative resources providing the needed operational flexibility are available and deployed *at*

*scale*, natural gas-fired resources should be considered as an essential reliability component of the electric grid in New England and across North America.