

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

ISO New England Inc.

Docket No. EL 19-90-000

**COMMENTS OF WILLIAM TONG, ATTORNEY GENERAL FOR THE STATE OF
CONNECTICUT, MAURA HEALEY, MASSACHUSETTS ATTORNEY GENERAL,
CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL
PROTECTION, CONNECTICUT OFFICE OF CONSUMER COUNSEL AND MAINE
OFFICE OF THE PUBLIC ADVOCATE**

Pursuant to the Order of the Federal Energy Regulatory Commission (the Commission) in the above-captioned matter, Connecticut Attorney General William Tong, Massachusetts Attorney General Maura Healey, the Connecticut Department of Energy and Environmental Protection, the Connecticut Office of Consumer Counsel, and the Maine Office of the Public Advocate (together, New England State Agencies), hereby file these comments addressing the December 27, 2019 Response of ISO New England, Inc. to the Commission's Order Instituting Section 206 Proceedings.

I. BACKGROUND

On October 17, 2019, the Commission issued an order (Order) initiating a proceeding under Section 206 of the Federal Power Act (FPA) directing the New England Independent System Operator (ISO-NE), PJM Interconnection, LLC (PJM), and Southwest Power Pool, Inc. (SPP), to demonstrate whether each of their Commission-jurisdictional tariffs is just and reasonable and complies with the Commission's mandates found in Order 1000, particularly with respect to the three year time-sensitive reliability needs exemption from competitive transmission solicitations.¹

The Connecticut Attorney General is an elected Constitutional official and the chief legal

¹ Order, p. 15.

officer of the State of Connecticut. The Connecticut Attorney General's responsibilities include intervening in various judicial and administrative proceedings to protect the interests of the citizens and natural resources of the State of Connecticut and in ensuring the enforcement of a variety of laws of the State of Connecticut, including Connecticut's Unfair Trade Practices Act and Antitrust Act, so as to promote the benefits of competition and to assure the protection of Connecticut's consumers from anti-competitive abuses.

The Massachusetts Attorney General is the chief legal officer of the Commonwealth of Massachusetts and is authorized by both state common law and by statute to institute proceedings before state and federal courts, tribunals and commissions as she may deem to be in the public interest. The Massachusetts Attorney General is further authorized expressly by statute to intervene on behalf of public utility ratepayers in proceedings before the Commission.²

The Connecticut Department of Energy and Environmental Protection (Connecticut Department) has statutory authority over the state's energy and environmental policies and for ensuring that the state has adequate and reliable energy resources.³ The Connecticut Department is tasked with interacting with the regional transmission operator in response to state and regional energy needs and policies.

The Connecticut Office of Consumer Counsel is the statutorily designated ratepayer advocate in all utility matters concerning the provision of electric, natural gas, water, and telecommunications services. The Office of Consumer Counsel is authorized by statute to intervene and appear in any federal or state judicial and administrative proceedings where the interests of utility ratepayers are implicated.

² MASS. GEN. LAWS ch. 12, § 11E.

³ Conn. Gen. Stat. §§ 22a-2d; 16a-3a.

The Maine Public Advocate is charged by Maine statute to represent the interests of consumers of utility services⁴ and is authorized to intervene in federal proceedings "in which the subject matter of the action affects the consumers of any utility doing business in this State."⁵

The Connecticut and Massachusetts Attorneys General have previously identified the three year upgrades exemption as problematic and argued that this exemption to the Order 1000 goals of encouraging competitive solicitations has unreasonably and unjustly increased transmission upgrade costs to the detriment of ratepayers and could affect the reliability of the electric grid in New England.⁶

The New England State Agencies support measures that make more efficient use of existing transmission facilities, and favor building new facilities where necessary to ensure the transmission grid's reliability, efficiency, and ability to integrate clean-energy resources. At the same time, however, it is essential to achieve these ends as efficiently and cost-effectively as possible. Competitive solicitations are one highly successful means to attract the best, most cost effective projects and to protect ratepayers. As clearly demonstrated by the Response of ISO-NE and the data contained in the attachments thereto, FERC should order ISO-NE to amend its Open Access Transmission Tariff (OATT or Tariff) and revise or eliminate the time-sensitive needs exemption in order to better encourage competition. In addition, ISO-NE must broaden the range of measures, including non-wires alternatives (NWA), permitted to be considered as a solution to transmission needs, whether those needs are to be solved with alternatives to transmission or by a competitive solicitation. Finally, FERC should require ISO-NE to revise its planning process to require a proactive, regularly scheduled review of transmission needs.

⁴ 35-A M.R.S. § 1701 *et. seq.*

⁵ 35-A M.R.S. § 1702(5).

⁶ Comments of Southern New England State Agencies, *ISO New England Inc. and New England Power Pool*; ER09-197, *ISO New England, Inc.; Inquiry Regarding the Commission's Electric Transmission Incentives Policy*; PL19-3.

II. BACKGROUND

In this proceeding, the Commission has directed ISO-NE, PJM and SPP to demonstrate how each system operator's immediate need reliability projects exemption complies with Order 1000.

Order 1000 and Initial Implementation by ISO-NE

The Commission issued its final rule on Order 1000, creating incentives for regional and interregional planning, and encouraging competition in transmission planning on July 21, 2011. Specifically, the Commission required regional transmission operators to remove from Commission-approved tariffs and agreements a right of first refusal for incumbent owners' transmission facilities selected in a regional transmission plan and allowed public utility transmission providers in a transmission planning region to use competitive bidding to solicit transmission projects. The order established new electric transmission planning and cost allocation requirements for public utility transmission providers across the country.⁷ The order's objectives include the following:

- Introduce competition into the development of regulated transmission solutions by removing arrangements that protect the right of first refusal for incumbent transmission providers.
- Create a mechanism for transmission development to address public policies that drive transmission.⁸

Order 1000 expressly sought to remove incumbent transmission owner's right of first refusal in order to "eliminate practices that have the potential to undermine the identification and evaluation of more efficient or cost-effective alternatives to regional transmission needs" and open

⁷ Order 1000, 136 FERC ¶ 61,051.

⁸ Information on public policy transmission upgrades is available at <https://www.iso-ne.com/system-planning/system-plans-studies/public-policy-transmission-upgrades>.

opportunities for non-incumbent transmission through competitive transmission planning processes.⁹

In May 2015, ISO-NE implemented initial changes to the OATT, to comply with the directives in Order 1000.¹⁰ ISO-NE revised its planning processes to include a requirement to solicit proposals for competitive solutions to transmission reliability projects, but only for those projects that address reliability needs that can be met more than three years from the completion of the needs assessment.¹¹ As a consequence, ISO-NE's changes to implement Order 1000 included an exception to competitive solicitation requirement for “time-sensitive needs” of less than three years.¹² Under this three year exemption, the time sensitive or “immediate needs” solution is to be developed and built by the incumbent transmission owner alone.¹³

The Commission’s rationale for exempting immediate need projects from competition was “to avoid delays in the development of projects needed to resolve a time-sensitive reliability criteria violation.”¹⁴ In approving the original immediate need exemption, the Commission identified five (5) criteria to ensure that the exemption would be "used only in limited

⁹ Order 1000, 136 FERC ¶ 61,051 at PP 225-226.

¹⁰ *ISO New England Inc.*, 143 FERC ¶ 61,150, at PP 235-239 (2013) (ISO-NE First Compliance Order), *order on reh’g and compliance*, 150 FERC ¶ 61,209, at PP 221- 226 (ISO-NE Second Compliance Order); *order on reh’g and compliance*, 153 FERC ¶ 61,012 (2015); *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, at PP 247-251 (2013) (PJM First Compliance Order), *order on reh’g and compliance*, 147 FERC ¶ 61,128, at PP 164-167, 194-199 (2014) (PJM Second Compliance Order), *order on reh’g and compliance*, 150 FERC ¶ 61,038, at P 74 (PJM Third Compliance Order), *order on reh’g and compliance*, 151 FERC ¶ 61,250, at P 25 (2015) (PJM Fourth Compliance Order); *Sw. Power Pool, Inc.*, 144 FERC ¶ 61,059, at PP 195-198 (2013) (SPP First Compliance Order), *order on reh’g and compliance*, 149 FERC ¶ 61,048, at P 166 (2014) (SPP Second Compliance Order), *order on reh’g and compliance*, 151 FERC ¶ 61,045 (2015).

¹¹ A *non-time-sensitive need* is a criteria violation that can be solved beyond three years from the completion of the relevant needs assessment. These solutions follow the competitive solution process, as detailed in Attachment K, Section 4.3.

¹² Order 1000, 136 FERC ¶ 61,051 at P. 225-226.

¹³ *Id.*, Att. K §§ 4.1(j)(ii) and 4.2.

¹⁴ Order p. 3.

circumstances."¹⁵ These criteria included such factors as the project must be needed in three years or less to solve specifically identified reliability concerns; that each regional transmission operator must identify and post an explanation of the system violations in advance; that stakeholders have sufficient time to comment; and each RTO must post a full description explaining the decision to designate the incumbent transmission owner and "an explanation of other transmission or non-transmission options that the region considered. . . ."¹⁶

Transmission Upgrades in New England

Overall, the New England State Agencies agree with ISO-NE that there have been significant investments in transmission system upgrades in New England in recent years. These investments have materially improved the transmission system. As ISO-NE noted in its 2019 Regional System Plan: "In large measure, as a result of transmission expansion in New England, the region has maintained a high level of reliability and resiliency; the dispatch of more efficient generating units, which reduces the need for out-of-merit unit commitment; and lower wholesale market costs."¹⁷

The scope and resultant cost of this expansion have been significant. For example, since 2002, 801 project components have been placed in service across the region to fortify the transmission system. In addition, 67 project components have a status of planned, proposed, or under construction. Overall, the region has invested approximately \$10.9 billion from 2002 to June 2019, to maintain transmission system reliability. An additional \$1.3 billion is planned over the planning horizon.¹⁸

¹⁵ Order, pp 3-4; ISO-NE First Compliance Order, 143 FERC ¶ 61,150 at P 236; PJM First Compliance Order, 142 FERC ¶ 61,214 at P 248. *See also* SPP First Compliance Order, 144 FERC ¶ 61,059 at P 195 (finding the exception is acceptable "in limited circumstances").

¹⁶ *Id.*

¹⁷ 2019 Regional System Plan, p. 6; cf. p180.

¹⁸ 2019 Regional System Plan, p. 92

Although ranked near the top in load-weighted spending on transmission construction, New England ranks near the bottom in terms of circuit-miles built per megawatt-hour of load¹⁹ and circuit-miles per million dollars spent.²⁰ Thus, while New England has improved reliability and reduced congestion, it has not done so efficiently. Increased transmission competition could provide these grid benefits at lower cost.

III. COMMENTS

ISO-NE's three year time sensitive needs exemption has proven to be a significant impediment to effective competition as envisioned by Order 1000. In addition, the immediate need projects have been plagued by significant delays, giving rise to the valid question of how time sensitive the identified need actually was. Further, the ISO-NE Tariff's inability to effectively accommodate a full evaluation of non-transmission alternatives, both in the context of obviating the need for a transmission solution and being eligible as an alternative to transmission in a competitive solicitation, demonstrates a failure to ensure truly competitive transmission procurements in New England. These combined shortcomings result in ISO-NE's OATT not being fully compliant with Order 1000.

Competition for Transmission Solutions Has Not Been Achieved in New England.

Under the original tariff changes adopted to comply with Order 1000, ISO-NE was required to facilitate competitive solicitations to meet new regional transmission needs.²¹ However, as noted above and as documented in Attachments A and C to ISO-NE's response, *all* of the completed and ongoing projects (a total of 30) were designated by ISO-NE as time sensitive

¹⁹ 2016 Transmission Metrics Report at 28 & Fig. 8; 2017 Transmission Metrics Report at 48-49.

²⁰ 2016 Transmission Metrics Report at 29; 2017 Transmission Metrics Report at 50.

²¹ ISO-NE, Transmission, Markets and Services Tariff, Section II, Attachment K, § 4.3 (Competitive Solution Process for Reliability Transmission Upgrades and Market Efficiency Transmission Upgrades) and § 4A.5-4A.8 (solicitation process to meet identified Public Policy Requirements through Public Policy Transmission Upgrades).

projects. Therefore, all 30 projects were built or are being built by incumbent transmission owners rather than being bid competitively. As a consequence, ISO-NE is the last regional transmission operator to conduct a competitive transmission planning and procurement process.²²

Close examination of Attachments A and C to ISO-NE's Response illustrates the myriad ways in which the ISO-NE Tariff has failed to deliver on the promise of Order 1000 and particularly, the anomalous outcomes that have occurred with projects designated as immediate need and subject to the three-year exception. Out of 30 completed and ongoing immediate need projects:

- 80% of projects (24 of 30) were not completed within 3 years.
- 50% of projects (15 of 30) are expected to take at least 5 years.
- The average (mean) project duration is 4.5 years.
- The most likely project duration (mode) is 5.5 years.
- The second most likely duration is 4.4 years.
- Of the 25 ongoing projects, 15 (60%) are expected to take more than 5 years to complete.
- 20 of the 30 projects had Need by Dates predating the Needs Assessment Study that identified the need.
- Another 4 of the 30 projects had Need by Dates in the same year as the need was identified.

The exception for "time-sensitive needs"²³ was intended by the Commission to be a limited exception. The bullets above, however, strongly suggest that the exception has swallowed the

²²https://brattlefiles.blob.core.windows.net/files/14803_brattle_competitive_transmission_appa_10-10-18_final_v1.pdf.

rule.²⁴ The three year immediate need deadline is a fiction that has not been respected in theory or in practice in New England. This has not escaped the attention of the Commission. In the Order opening this docket, the Commission stated:

[W]e are concerned that the exemption is not being used in limited circumstances, as intended. Our preliminary review suggests that the majority of ISO-NE's immediate need reliability projects tie to the 2016 Southeast Massachusetts and Rhode Island Needs Assessment Study, which identified numerous thermal violations in the Southern Massachusetts and Rhode Island area for study year 2016. Since ISO-NE does not conduct an annual transmission planning process, and instead relies upon Needs Assessment Studies to wait for a market solution to address a reliability need, it appears that all reliability needs in ISO-NE may be classified as immediate need reliability projects.²⁵

The Commission further noted:

ISO-NE has reported that only two of its 29 approved immediate need reliability projects have gone into service Similarly, SPP designated an immediate need reliability project in December 2018 that is needed by June 1, 2020 but has an expected in-service date of June 30, 2023. Based on information on the SPP website, it appears that none of SPP's immediate need reliability projects have gone into service, even those that have need-by dates past the present date.²⁶

Finally, the Commission also expressed concern that "it is unclear how each Responding RTO determines whether an immediate need project is needed in three years or less" adding that "the majority of ISO-NE's immediate need reliability projects have need-by dates occurring prior to ISO-NE's designation of these projects as immediate need reliability projects in the regional transmission plan, with 24 of 29 designated projects having need-by dates prior to 2016."²⁷

In short, more than eight years after the Commission issued Order 1000, ISO-NE has yet to have a single competitive transmission project bid, selected or completed, and only on December

²³ See *id.*, Att. K § 4.1(j)(i). For a study at peak load levels, a *time-sensitive need* is a reliability-criteria violation that needs to be solved in three years or less of the completion of the relevant needs assessment (i.e., the posting of the final needs assessment report).

²⁴ Jason Marshall, Time to open 'time-sensitive' transmission projects to Order 1000 competition, UtilityDive (May 9, 2019), <https://perma.cc/SQ8R-EFZ4>.

²⁵ Order, p. 10.

²⁶ Order, p. 8.

²⁷ Order, p. 7.

20, 2019, ISO-NE issued its first competitive solicitation.²⁸ It seems incongruous that every project to date is somehow time critical, but not critical enough to actually get built on time, while at the same time the grid continues to operate effectively and the system operator publicly states that the regional transmission system is healthy and robust.²⁹

However, disconcertingly, ISO-NE believes the status quo and the resultant lack of competition should remain the rule. In its Response, ISO-NE argues that the “exception is working as intended in the New England area and that no changes are necessary at this time.”³⁰

“The current three-year time frame should remain in place.”³¹ ISO-NE's comfort with the status quo notwithstanding, the facts above underscore the need to make important changes to the region's Tariff. The Response clearly and accurately identifies the process by which ISO-NE reviews the reliability needs of the New England transmission system³² but is silent as to any steps it proposes or is willing to take to address the Commission's concerns going forward.

Specifically, ISO-NE notes:

ISO-NE continuously assesses the transmission system, and where studies are required timelines may vary depending upon a number of factors, including the scope of the study; the amount and complexity of system concerns; the amount and timing of stakeholder interest; changes in resources that have cleared the Forward Capacity Market or are selected in a state-sponsored request for proposal or receive a financially binding obligation pursuant to a contract; resource retirements; changes in load forecast; and changes in forecasted energy efficiency and photovoltaic generation. Any changes in these

²⁸ Memorandum from Vamsi Chadalavada, Executive Vice President and Chief Operating Officer, ISO-NE, to NEPOOL Participants Committee, Re-entry of retired resources and Order 1000, April 30, 2019, available at https://www.iso-ne.com/static-assets/documents/2019/05/20190430_re-entryretiredresources_order1000_memo.pdf. *See also* Issuance of the Boston 2028 Request for Proposal, available at <https://www.iso-ne.com/system-planning/transmission-planning/competitive-transmission-projects/>.

²⁹ 2019 RSP states regarding upgrades since 2002: “These projects help maintain system reliability, enhance the region's ability to support a robust, competitive wholesale market by reliably moving power . . . and ensure the system can meet its current level of demand. . . .” p.100.

³⁰ Response, p. 19.

³¹ Response, p. 17.

³² *See, e.g.*, Response, pp. 7-9.

assumptions can lead to moving back a number of steps in the study process.³³

The above transmission planning process is quite detailed and yet the results clearly and consistently favor immediate need projects and have fallen short of the directives of Order 1000. Something needs to change.

Similarly, when asked directly about the reasons why projects with a Need by Date prior to the project being designated had not been identified in a prior planning cycle, ISO-NE responded that such “needs were not identified in previous planning cycles because each was caused by changed circumstances and assumptions.”³⁴ All of the above may be true and delays and unforeseen events may happen, but it does not explain why other regional transmission operators, who face broadly the same reliability issues and planning complexities, have managed to run successful competitive transmission procurements, but ISO-NE has not. Nowhere does ISO-NE explain with any specificity why *all* projects to date have been time sensitive nor does it persuasively justify why so many projects that have been deemed time sensitive take more than three years to actually build. The best that ISO-NE's Response offers is that "things can change," resulting in delays. While that may be true, it suggests that the immediate need is not so immediate and the Tariff needs to be changed to reflect the reality that most of the immediate need projects will not be completed or in service in three years and therefore should not be exempted from competition.

It is clear that ISO-NE needs to incorporate changes to its Tariff that eliminate, or at least reduce, the wholesale employment of the time sensitive exemption. Nowhere has ISO-NE clearly explained why non-incumbent transmission developers cannot simply be allowed to offer projects, even for time sensitive upgrades. The Commission did ask ISO-NE whether "an

³³ Response, p. 3.

³⁴ *Id.*, p. 10.

abbreviated competitive process for immediate need reliability projects" is warranted.³⁵ ISO-NE responded that "This solution would be problematic."³⁶ ISO-NE added that "any solicitation will take additional time. . . ."³⁷ This concern with potential delays caused by the issuance of an RFP is unpersuasive, given ISO-NE's late identification of these needs and the chronic and in some cases lengthy project delays experienced by the incumbent transmission owners. Further, since ISO-NE has yet to complete a competitive process, it is unclear why it believes one will take too much time or why an abbreviated RFP process could not be used for immediate need projects. If a non-incumbent developer is willing to go through the expense and effort to prepare a draft project plan in an abbreviated time frame to meet ISO-NE's needs, it is difficult to see the harm that would do to ISO-NE. At the very least, it would offer the ISO-NE transmission planners the benefit of choice and could very well include potentially better and cheaper transmission solutions to meet identified needs.

Fundamentally, ISO-NE has yet to embrace the benefits of competition and the fact that there are clear advantages to competitive solutions to solve regional transmission needs.³⁸ Those benefits are incontrovertible. In one recent report from the Brattle Group analyzing transmission planning in the U.S., the authors noted that from 2013 to 2018 only 2% of all transmission investments were competitively bid.³⁹ Based on the clear savings from those 15 projects, Brattle estimated expanding competition to 33% of all projects would save ratepayers \$8 billion in five

³⁵ Response, p. 18.

³⁶ *Id.*

³⁷ *Id.*

³⁸ ISO-NE's enthusiasm for competitive transmission projects has been muted. In its responsive filings to the Commission in the 2015 docket, ISO-NE appears to argue that the significant growth in transmission upgrades in recent years is evidence that the existing rules were working well and there was no need to alter the right of first refusal for incumbents. *See*, Order on Rehearing and Compliance, ER13-193-001, para. 197.

³⁹ Cost Savings Offered by Competition in Electric Transmission, April 2019, The Brattle Group, p.1 (Brattle April 2019 Report). *See also*, FERC, *2017 Transmission Metrics Staff Report*, October 6, 2017, p. 22. Available at:

<https://www.ferc.gov/legal/staff-reports/2017/transmission-investment-metrics.pdf>

years. Winning bids averaged 40% below initial project cost estimates while non-competitive bids were completed at 34% above initial cost estimates.⁴⁰ Brattle expects competitive transmission development processes would yield cost savings ranging from 20% to 30% on average.⁴¹ In fact, according to Brattle non-competitive transmission projects in ISO-NE have experienced cost overruns of up to 70%.⁴²

As the Brattle Report explained:

Based on our experience and discussion with industry participants, the cost savings reflected in the selected competitive proposals can be attributed to a wide range of innovative approaches to transmission development. They include innovative project designs, such as using new technologies for conductors, tower type, materials, and foundations; optimized routing to reduce permitting costs; innovative contracting; cost-control mechanisms (such as improved risk sharing with and incentives for the engineering and construction contractors); and innovative partnerships and financial structures, including public-private partnerships to streamline project permitting.⁴³

Ultimately, the Brattle Report concludes: "We do not see compelling policy reasons for broad limits or having significant differences in criteria used in various regions that directly or indirectly exclude transmission projects from the competitive processes."⁴⁴ The New England State Agencies strongly agree.

It is worth noting that both the Connecticut Department of Energy and Environmental Protection and the Massachusetts Department of Energy Resources (DOER) have been very effective in employing competitive solicitations in attracting new clean energy generation in

⁴⁰ Brattle, April 2019, Report at 5. ISO-NE has issued its first request for proposals for a competitively developed transmission solution. <https://www.iso-ne.com/system-planning/transmission-planning/competitive-transmission-projects/>

⁴¹ Brattle, April 2019, Report at 10.

⁴² See Johannes Pfeifenberger, *et al.*, Transmission Competition Under FERC Order No. 1000: What We Know About Cost Savings to Date, (Oct. 10, 2018), slide 13 available at https://brattlefiles.blob.core.windows.net/files/14803_brattle_competitive_transmission_appa_10-10-18_final_v1.pdf

⁴³ *Id.* p. 10.

⁴⁴ *Id.* p. 6

order to meet state de-carbonization and clean energy goals. Using an open, competitive, and highly transparent process, the Connecticut Department has conducted yearly clean energy solicitations which have succeeded in attracting over 100 bids in one recent case and driving prices down year-over-year. One recent offshore wind solicitation resulted in the lowest bid prices ever in the United States and the entire process, from notice of the initial request for proposals to awarding the bid, was accomplished within six months. Similarly, since 2013, under the supervision of the Massachusetts DOER, Massachusetts electric distribution companies have conducted five competitive procurements for renewable and clean energy generation resources pursuant to the Green Communities Act.⁴⁵ In 2017, two separate procurements resulted in contracts associated with the generation supply, environmental benefits, and transmission of 800 MW of offshore wind generation and 9,554,940 MWh of hydroelectricity. Importantly, each successive procurement led to lower-priced contracts. At the end of 2019, a contract for another 804 MW of offshore wind generation was finalized. The cost of the most recent offshore wind procurement has not yet been disclosed but is expected to be lower than the initial 800 MW procurement. Some of the New England states' competitive generation solicitations have been bundled with transmission projects without harming the solicitation process and with some interesting transmission solutions offered. These excellent competitive results occurred outside ISO-NE's regional transmission planning processes.

In addition to the benefits competition provides in terms of customer savings, competition can also result in better transmission projects. Transmission upgrades are vitally needed to address state climate and other policy goals. Well-planned regional and interregional transmission projects are needed to facilitate the growth of renewable generation, capture load

⁴⁵ (St. 2008, Sections 83A, 83C, and 83D).

and generation diversity across larger footprints, reduce transmission congestion, and improve system reliability and resiliency.

As ISO-NE notes in its recent 2019 Regional System Plan (2019 RSP), state policy directives are moving the grid to more renewable energy resources and state mandated energy efficiency and demand reduction efforts have already had a material impact of regional load.

These grid modernization steps have transmission system impacts. As ISO-NE has pointed out:

Generator retirements, the integration of many distributed and grid-level resources, the use of inverter-based technologies, and issues rising from minimum-load assessments and high-voltage conditions are changing the needs for reliability-based transmission upgrades.⁴⁶

These efforts, in turn, require updating the transmission grid. As the 2019 RSP notes:

Grid transformation—The widespread addition of inverter-based technologies (which use power electronics to convert between alternating current [AC] frequencies or between AC and direct current [DC] frequencies) and distributed energy resources (most which ISO cannot observe or control like traditional resources) would require transmission upgrades and control system improvements for reliably interconnecting these resources to the grid.⁴⁷ Structural changes to the transmission and distribution systems are being analyzed and implemented, and new procedures put in place, to help transform the grid and improve the reliable, economical, and environmental performance of the system overall.⁴⁸

As the Commission has noted, and as the ISO-NE Response at page three makes clear, ISO-NE's planning process is essentially reactive. A need is identified and planners react. Unlike other system operators, there is no standard multi-year transmission planning cycle in New England. The ISO-NE has clearly identified the need to upgrade the transmission system to

⁴⁶ 2019 RSP, p. 2.

⁴⁷ *Inverter-based technologies* include wind, photovoltaics resources, high-voltage direct-current (HVDC) facilities, battery energy-storage systems, and flexible alternating current transmission system (FACTS) devices, which can help regulate voltages and improve the stability performance of the system. *Distributed energy resources* (DERs) are sources and aggregated sources of electric power not directly connected to a bulk power system. DERs include generators (i.e., distributed generators) and energy-storage technologies capable of exporting active power to an electric power system.

⁴⁸ 2019 RSP, p.1.

address inverter technology issues. This will be a non-trivial matter and will involve a major transmission planning effort. It would be a logical time, therefore, for the ISO-NE to modify its transmission planning process to create a forward-looking multi-year planning cycle, including accommodating competitive solutions, and not simply wait and react when the issues present themselves as emergencies.

There certainly are strong anecdotal indications of significant interest on the part of independent transmission developers in having opportunities to competitively bid on transmission solutions. In fact, commenting on successful competitive transmission solicitations elsewhere in the country, Brattle noted: "The low costs of some of the proposals are consistent with the significant interest and participation in competitive processes by numerous market participants as documented by FERC staff."⁴⁹

Finally, not all transmission problems need to be solved with new poles, wires and substations. There are many circumstances where newer technologies or simply better operating procedures can achieve the desired result at a fraction of the cost and ISO-NE needs to broaden the range of technologies and practices that will be allowed to substitute in lieu of a transmission solution or compete if a transmission solution is required.

Non Wires Alternatives Should be Fairly Considered and Promoted

Federal Power Act section 219(b)(3) directs the Commission to "encourage investments in technologies and other measures that increase the capacity and efficiency of existing transmission facilities and improve the operation of those facilities."⁵⁰ Furthermore, in creating the time sensitive exemption, the Commission specifically required that any such exemption must meet

⁴⁹ Brattle Report, p. 9. FERC, *2017 Transmission Metrics Staff Report*, October 6, 2017, p. 22. Available at:

<https://www.ferc.gov/legal/staff-reports/2017/transmission-investment-metrics.pdf>

⁵⁰ 16 U.S.C. Section 824s(b)(3).

five criteria, one of which was that system operators must explain the "other transmission or *non-transmission options* that the region considered."⁵¹ ISO-NE, therefore, needs to evaluate alternatives to traditional poles-and-wires solutions.

The current provisions of the ISO-NE Tariff result in unnecessary restrictions on the technologies permitted to compete in any future competitive procurement and have failed to encourage technologies that increase the efficiency and capacity of existing transmission facilities, thereby eliminating the need for a transmission solution.

Consideration of Non Wires Alternatives that Avoid the Need for a Transmission Solution

The Commission made clear in Order 1000 that NWA were to be considered on a comparable basis to transmission solutions in regional transmission planning.⁵² At that time, generation, demand resources and energy efficiency were identified as alternatives.⁵³ Since that time, in Orders 841/841-A, the Commission has authorized storage resources to fully participate in the wholesale energy, ancillary services, and capacity markets. Under the current provisions of the ISO-NE Tariff governing Needs Assessments, NWA may only be considered as a way to obviate the need for a transmission solution. ISO-NE terms these NWA "market responses" and provides that "[m]arket responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation)...."⁵⁴ Significantly, in order to qualify, such demand side market responses must have a proponent and have cleared in the forward capacity

⁵¹ Order, pp. 3-4. (Emphasis added.)

⁵² "As we make clear above in the section on Regional Transmission Planning, we are maintaining the approach taken in Order No. 890 and will require that generation, demand resources, and transmission be treated comparably in the regional transmission planning process." Order 1000, at P 779 (citation omitted). The Commission nonetheless acknowledged in the next sentence that Order 1000 contained no provision for cost recovery for NWA. *Id.*

⁵³ Order 1000, at PP 148, 153-55.

⁵⁴ ISO-NE Open Access Transmission Tariff ("OATT"), Attachment K, Section 4.1(f). Market responses also include Elective Transmission Upgrades. *Id.*

auction or otherwise be contractually obligated to perform before they can be considered as a way to obviate a transmission need.⁵⁵ Thus, within ISO-NE's transmission planning framework, potentially feasible NWA are not considered. Transmission owners have no obligation and indeed no financial incentive to make a good faith effort to design them in lieu of a transmission solution and ISO-NE has no duty to consider them unless they already have a developer and are on the way to completion.

Further, technological advancements since the issuance of Order 1000 do not appear to be eligible for consideration as ways to obviate a transmission need since software solutions such as transmission topology optimization, transmission line capacity forecasting products, or dynamic line rating solutions do not have the same characteristics as physical resources that have a project proponent and are capable of securing a capacity supply obligation or other contractual obligation to perform.⁵⁶ The Commission should order ISO-NE to amend its Tariff to require consideration of a wide range of available technologies and operating practices that could qualify as market responses and obviate the need for transmission projects.

As noted above, one reality that appears to warp many of the transmission considerations in the region is that transmission owners are allowed to recover through rates certain assets, such poles, wires, transformers, etc., but generally not things such as improved operational techniques and practices—such as the use of dynamic line ratings or other improved operational technologies mentioned above—that are in consumers' best interests but do not involve large rate base additions and, so, do not offer substantial profit opportunities for transmission owners. Thus, while Order 1000 specified that NWA be treated comparably, current financial incentives heavily favor transmission solutions.

⁵⁵ *Id.*

⁵⁶ See FERC workshop on Grid Enhancing Technologies, November 6, 2019, AD19-19 (<https://www.ferc.gov/CalendarFiles/20191011151622-AD19-19-000workshop.pdf>)

Participation by Non Wires Alternatives in Competitive Transmission Solicitations

In the recently approved changes to the ISO-NE tariff to implement the planned Boston area competitive procurement, the New England State Agencies criticized the process as not being fully competitive because NWA were excluded from participation.⁵⁷ Specifically, the Connecticut Attorney General is disappointed to learn that not only is the sole planned competitive procurement not encouraging NWA, the ISO-NE staff have stated that NWA will not be considered.⁵⁸ This is not consistent with the goals of Order 1000. Similarly, the Massachusetts Attorney General registered her disagreement with the exclusion of NWA from the recent tariff changes intended to facilitate the December 2019 competitive RFP, arguing that because it did not allow for NWA such as storage or other available technologies to participate, the procurement process was not as competitive as it should be.⁵⁹ The Massachusetts Attorney General requested that the Commission investigate and determine ways in which NWA could more fully and meaningfully compete as alternatives to traditional transmission solutions. The Commission in that docket dismissed the State Attorneys Generals' arguments as outside the scope of the proceeding.⁶⁰ Nonetheless, the New England State Agencies raise them here again, because this is an important issue that remains unaddressed by the Commission. In order to achieve full competition for solutions to transmission needs, the bidding process must eventually allow for consideration of all available technologies, including NWA. Until NWA can participate as competitive solutions to transmission needs, there is simply no assurance that

⁵⁷ See, Order Accepting Tariff Revisions, 169 FERC ¶ 61,197, P. 16 - 17.

⁵⁸ Out-of-Time Motion to Intervene and Limited Protest of William Tong, Attorney General of Connecticut, *ISO New England Inc. and New England Power Pool*, ER20-92-000, p.7. See, <https://www.iso-ne.com/event-details?eventId=137639&load.more=1>, Brent Oberlin, Competitive Transmission Solicitation Enhancements, July 17, 2019, slide 21.

⁵⁹ Comments of Massachusetts Attorney General, *ISO New England Inc. and New England Power Pool*, Docket No. 20-92-000.

⁶⁰ *ISO New England Inc. and New England Power Pool*, 169 FERC ¶ 61,195 at P. 21 (2019).

the best or most cost effective solution has been selected.

NWA have significant potential advantages in competitive solicitations. Battery storage units, for example, have recently or will soon be deployed in two circumstances in ISO-NE to cost-effectively avoid a total of 23 miles of distribution lines and provide much improved reliability to consumers.⁶¹ Additionally, certain types of NWA include technologies and practices that allow grid operators to safely move more power through existing lines, minimizing expensive wires-only upgrades. Opening competition to include advanced technology alternatives or combinations of poles and wires and new technologies paired together, may present ISO-NE planners with a suite of innovative alternatives to traditional incumbent developer projects.⁶²

If NWA are allowed to compete, developers will have the incentive to offer projects that pair the best mix of traditional wires and pole upgrades and NWA, such as battery storage or dynamic line rating technology. This, in turn will offer ISO-NE a suite of innovative projects from the widest selection of developers and technologies to choose from. The New England

⁶¹ <http://capecodtoday.com/article/2019/04/05/245733-Eversource-Battery-Storage-Project-Gets-Green-Light-P-Town-Voters>; <https://www.co.cheshire.nh.us/.../Westmoreland-Energy-Storage-Project-5-22-19.pdf>.

⁶² In ISO-NE, conservative seasonal ratings are the norm. Ironically, the value of improved line rating practices and other related operational measures was recently demonstrated in ISO-NE. During the 2018 "bomb cyclone" weather event, much of the grid in the northeastern United States was constrained because of an extended period of very cold weather between late December 2017 and January 2018. During this period of extreme weather, ISO-NE issued an abnormal conditions alert to address the weather and supply issues. ISO-NE then increased its transmission line ratings to allow for greater line capacity. One ISO-NE report stated: "At 16:00 on 1/3/18, the scheduling limit on the New York A.C. ties was increased from 1,400 to 1,600 MW. The increased limit was made possible by the cold conditions which helped to improve thermal transfer capability." Of course, ISO-NE only used a form of ambient-adjusted line ratings to avoid large quantities of congestion caused by the bomb cyclone. Interestingly, a Brattle study noted that that ISO-NE may have failed to capture the full benefits that would have accrued if improved line rating practices had been in place. See, ISO-NE "Cold Weather Operations, December 24, 2017-January 8, 2018" (http://www.nepool.com/uploads/NPC_20180112_Cold_Weather_ops.pdf) slide 41.

State Agencies strongly urge the Commission to order ISO-NE to open all competitive transmission solicitations to NWA.

ISO-NE's Planning Process Should be Improved.

In its Response, ISO-NE gave a detailed description of its regional transmission planning process.⁶³ Implicit in its description of the Needs Assessment process is the unstated fact that the Commission aptly noted in its Order, that ISO-NE does not conduct an annual transmission planning process, and instead relies upon periodic Needs Assessment Studies “as needed.” This is a reactive rather than a proactive approach that is to blame for the high number of immediate need projects in Attachment A that have Need by Dates that predate the needs assessment that identified them. The Commission noted that this practice, “coupled with ISO-NE’s typical approach to wait for a market solution to address a reliability need,” results in “all reliability needs in ISO-NE [being] classified as immediate need reliability projects.”⁶⁴ Clearly ISO-NE’s transmission planning process is slow to identify needs and has the resultant effect of stifling competition since it habitually identifies needs some time after they are needed, thereby automatically rendering them immediate needs. This process must be revised to avoid these unfortunate results and make it a more regularly scheduled, proactive and forward looking exercise that identifies future needs well before they are needed, and not current or past due needs. Further, the regional transmission planning processes administered by ISO-NE should require regular identification and scrutiny of grid management and related efficiency-enhancing technologies. To enforce this requirement, the Commission could consider requiring RTOs to report annually or biannually on the extent to which each is adopting better grid management technologies or practices. The Commission should likewise allow an opportunity for public

⁶³ Response, pp. 1-6.

⁶⁴ Order p. 10.

comment on these reports. Over time, such reports should disseminate information about best practices and create pressure for their adoption.

III. CONCLUSION

It is clear that the promise of Order 1000 has not been realized in the ISO-NE control area. The New England State Agencies submit that changes to the Tariff are needed to eliminate or reduce the scope of the three year immediate need exemption, allowing for a competitive process to select the transmission solution for a project needed in three year or less. Further, all existing technologies must be considered as means to obviate a transmission need, not just projects that are capable of obtaining financing and entering into a supply obligation. In addition, the Commission should order ISO-NE to actively require developers to consider NWA in order to lower costs, unlock regionally congested renewable resources and lower ratepayer costs. In addition, FERC should order ISO-NE to conclusively demonstrate that it considered whether alternative solutions, including advanced technologies or measures that improve the performance of existing facilities, could provide a more effective and efficient solution for meeting transmission needs. NWA must also be allowed to compete in competitive transmission solicitations or in a process outside Order 1000 to provide a solution to transmission needs. Finally, the Commission should order that ISO-NE amend its planning process to take place at a regularly scheduled interval, such as annually, in order to more proactively and timely identify projected transmission needs.

Respectfully Submitted,

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Dated: January 27, 2020

CERTIFICATE OF SERVICE

I, Robert Snook, hereby certify that on this day I caused the foregoing to be served upon all parties identified on this agency's service list for this proceeding.

Robert Snook
Robert Snook

Dated: January 27, 2020