UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New England Winter Gas-Electric Forum	)	Docket No. AD22-9-000
	)	

Statement of Ms. Kimberly Watson, President, Kinder Morgan, Interstate Gas Pipelines

My name is Kim Watson. I am President of Kinder Morgan's interstate gas pipelines, which includes Tennessee Gas Pipeline, one of the five interstate gas pipelines serving New England, and Stagecoach Gas Services.[1] Tennessee Gas Pipeline is an approximately 11,760-mile pipeline, running from the Texas and Louisiana coast through Arkansas, Mississippi, Alabama, Tennessee, Kentucky, Ohio, and Pennsylvania to deliver natural gas in West Virginia, New Jersey, New York, and New England.

I also currently serve as the chair of Interstate Natural Gas Association of America ("INGAA"). INGAA is a trade association that advocates regulatory and legislative positions of importance to the interstate natural gas pipeline industry in the United States. INGAA's 26 members represent the majority of interstate natural gas transmission pipeline companies in the United States. INGAA's members, which operate approximately 200,000 miles of interstate natural gas pipelines, serve as an indispensable link between natural gas producers and consumers. Its members' interstate natural gas pipelines are regulated by the Commission pursuant to the Natural Gas Act.

I appreciate the opportunity to discuss the historical context of New England's gas-electric challenges as part of the Commission's New England Winter Gas Electric Forum. I submit this

[1] Stagecoach Gas Services is a natural gas storage and transportation company in New York and Pennsylvania with interconnects to Tennessee Gas Pipeline and other major interstate gas pipelines. Stagecoach consists of approximately 75 miles of pipelines that deliver an aggregate capacity of ~3 billion cubic feet per day and has 26 billion cubic feet of working gas storage.

statement on behalf of Kinder Morgan and INGAA's members to further inform the Commission's thinking as it considers gas-electric challenges in New England and potential means to address those challenges.

1. A lack of pipeline infrastructure and a misalignment of market incentives have led New England to the "edge" of a reliability crisis.

There is little dispute that New England currently faces significant risk to the reliability of its bulk power system. Gordon van Welie, President and CEO of ISO New England ("ISO-NE"), recently informed Secretary of Energy Jennifer Granholm that, "[d]uring the coldest days of the year, New England does not have sufficient pipeline infrastructure to meet the region's demand for natural gas for both home heating and power generation."[2] This is not a new problem. ISO-NE "has been active in expressing its concerns . . . with the availability of sufficient quantities of fuel to serve the electric generation fleet during the winter" for "over a decade."[3] Mr. van Welie previously explained that insufficient fuel supply has left ISO-NE "operating close to the edge" and "in a precarious position."[4]

The "precarious position" of New England's bulk power system does *not* imply that there is an issue with the reliability of the natural gas pipeline infrastructure serving New England. To the contrary, a survey of interstate pipelines found pipelines delivered 99.79% of "firm" contractual commitments to transportation customers at the primary delivery points specified in

[2] Letter from Gordon van Welie, President and CEO, ISO New England, to Hon. Jennifer Granholm, Secretary, United States Department of Energy at 1 (Aug. 29, 2022) ("Aug. 29 Letter").

[3] *Id.* at 3.

[4] Bruce Mohl, "Grid operator nervous about energy constraints," CommonWealth Magazine (Dec. 6, 2021) (statement of Gordon van Welie), https://tinyurl.com/237hdfdn.

their contract.[5] Natural gas pipelines have not led New England to the "edge" of a reliability crisis; the region's problems instead can be attributed to three main causes.

First, although pipelines reliably deliver on their "firm" contractual commitments, there is not enough natural gas pipeline and storage infrastructure serving New England to provide firm transportation to natural gas-fired power generators that have not already contracted for it. Natural gas-fired power generators historically relied largely on capacity that local distribution companies ("LDCs") purchased on a "firm" basis, did not use, and instead "released" into the secondary market.[6] The growing demand for electricity in the winter means that natural gas-fired power generators are increasingly scrambling for natural gas transportation at a time when "regional gas utilities have been using most, if not all, of the capacity on the pipelines that carry natural gas into New England," which "leaves very little to no pipeline capacity for electric generators" and "creates a number of concerns for the power system."[7] The huge demand for a small amount of capacity available on the secondary market has led to natural gas-fired power generators and New England consumers paying significantly more for electricity than people living in areas with adequate pipeline capacity. And on the coldest days, as Mr. van Welie noted, demand exceeds

[5] In April 2017, INGAA conducted a survey of 51 interstate pipelines, and found that over the ten-year period from 2006 – 2016, pipelines delivered 99.79% of "firm" contractual commitments to transportation customers at the primary delivery points specified in their contract. This is consistent with an earlier study that found fewer than 100,000 natural gas customers nationally experienced disruptions in 2016 compared to 8.1 million Americans who experienced power outages. NATURAL GAS SYSTEMS: RELIABLE & RESILIENT, NATURAL GAS COUNCIL (2017), http://naturalgascouncil.org/natural-gas-systems-reliable-resilient/.

[6] Alternatively, natural gas-fired power generators can purchase "bundles" from marketers that include both the natural gas commodity and transportation services.

[7] ISO-NE, *Natural Gas Infrastructure Constraints*, https://tinyurl.com/2esj2pyd; *see also id.* ("[C]ontracting for pipeline capacity only when needed helps natural-gas-fired generators keep their costs as low as possible to maintain competitiveness in the wholesale electricity markets. While that strategy works for most of the year, on cold days the pipelines are running at or near maximum capacity solely to meet heating demand. During several recent winters, this situation has severely limited the delivery of fuel to much of the region's power plants, which, in turn, threatened the reliable supply of electricity and drove up wholesale electricity prices and air emissions.").

Further, LDCs that have an obligation to serve under state law will not release capacity into the secondary market when the release would affect their ability to serve customers reliably.

supply and natural gas-fired power generators cannot obtain the gas needed to ensure the reliability of New England's bulk power system. This demand-supply imbalance will increase exponentially as demand for electricity in New England grows and the region increasingly relies on resources like natural gas-fired generators to balance variable renewable energy resources.

Second, natural gas-fired power generators in New England do not have an incentive to purchase firm transportation, even if it was available. Because LDCs may recover the cost of firm transportation and natural gas commodity from their customers, LDCs purchase firm transportation (and the commodity) and their customers do not face the substantial risk of being unable to obtain natural gas in the winter when they need it most. Natural gas-fired power generators, by contrast, "do not have sufficient guaranteed long-term incomes on which to rely when making fuel arrangements," and "[a]s a result, they will, at best, engage in seasonal contracting for fuel to cover their expected supply obligations and rely on spot fuel markets for the additional supplies to cover unexpected events."[8] "[T]he majority of wholesale and retail buyers of electricity in New England . . . are not making long-term commitments to electric energy suppliers, nor do these suppliers have a 'firm fuel' obligation under the [ISO-NE's] FERC-regulated Tariff."[9] This inability to recover the cost of a long-term commitment explains why natural gas-fired generators do not purchase firm transportation services or anchor proposed pipeline expansions.

Third, regional and state policies have not recognized that greater reliance on variable renewable energy resources requires further development, not obstruction, of natural gas infrastructure. ISO-NE has explained that, although "renewables will displace fossil fuels," "the

[8] Aug. 29 Letter, Draft Problem Statement at 2.

[9] *Id.*

need for balancing energy (and in particular the long duration, peaking requirement for balancing energy) will increase."[10] And the North American Electric Reliability Council recognizes that natural gas-fired generation "has become a necessary balancing resource to reliably integrate [variably energy resources] into the dispatch," and, "[u]ntil storage technology is fully developed and deployed at scale, natural-gas-fired generation will remain essential to providing the grid's rapidly increasing flexibility needs."[11] In short, "[n]atural gas is the reliability fuel that keeps the lights on, and natural gas policy must reflect this reality."[12] Policies in New England, however, have *not* reflected this reality and instead treated variable renewable generation and natural gas-fired generation as mutually exclusive rather than focusing on how they complement each other. It is time for new regional and state policies that support the natural gas pipeline infrastructure expansions essential to meeting states' climate goals.

Any effort to address the significant and growing threat to the reliability of New England's electric bulk power system must focus on these three obstacles to natural gas infrastructure development.

2. <u>New England needs swift action that addresses the fundamental problems causing its reliability crisis to avoid the dire consequences of a failure of its bulk power system.</u>

I commend the Commission for convening this conference, but discussion alone will not solve this problem. There must be swift action to address the significant risks to the reliability of New England's bulk power system.

ISO-NE recognizes that New England is in a "precarious position" and "operating close to the edge." New England has avoided a catastrophe like what occurred in Texas during Winter

[10] Aug. 29 Letter, Draft Problem Statement at 3.

[11] NERC, 2022 State of Reliability: An Assessment of 2021 Bulk Power System Performance at 45 (Jul. 2022), https://tinyurl.com/36pcj7u5.

[12] NERC, Long Term Reliability Assessment at 5 (Dec. 2021), https://tinyurl.com/csu6zwsb.

Storm Uri through actions such as winterization of facilities and exceptional coordination among ISO-NE, pipelines, and shippers willing to release their capacity or resell their gas supplies, yet the region cannot continue to rely solely on these measures going forward. New England plans to rely more on variable renewable energy resources in the future and so "the region will continue to be dependent on resources with the operating flexibility to balance and backstop th[ese] variable renewable generat[ors] to sustain reliability."[13] ISO-NE recently concluded that a scenario which "met state electric sector environmental goals" and "reliability criteria through a balanced mix of increased wind, solar, and storage" "while supporting high electrification of heating and transportation" "would require such a large amount of wind and solar that it may present significant challenges [to] the transmission system and require an outsized amount of land or offshore areas to be sited and developed for the necessary wind and solar farms."[14] But the "substitution of 3,000 MW of dispatchable units . . . would reduce the necessary new units of wind, solar, and storage by 19% (17,000 MW), illustrating the importance of dispatchable resources to the future grid."[15]

Natural gas-fired power generators are best able to provide these critical balancing and backstopping services. Indeed, "[t]he region's expected dependence on natural gas in the near future is especially true since policymakers are looking for the electric grid to serve substantially higher demands given their priorities for electrification of transportation and heating in the

[13] Aug. 29 Letter at 1.

[14] ISO-NE, *2021 Economic Study: Future Grid Reliability Study Phase 1* at 2-3 (July 29, 2022), https://tinyurl.com/2c4m8uzb; *see also id.* at 2 ("The reserve margin – i.e., how many extra resources are needed to keep the system reliable in times of stress – may need to increase by an order of magnitude by 2040 (i.e., from 15% to 300%). A lack of diversity in the future resource mix may necessitate the construction of many more new resources.")

[15] *Id.* at 3.

region."[16] Absent swift action to address the obstacles to natural gas infrastructure discussed above, New England will face ever greater risk of moving from "close to the edge" to over it.

3. The Commission must work with multiple federal and state agencies as well as ISO-NE to address the crisis facing New England's bulk power system.

The best and simplest solution to the imminent threat to the reliability of New England's electric bulk power system would be to build additional natural gas pipeline infrastructure to serve New England. The natural gas pipeline industry has tried and remains ready to build this critical infrastructure, but extensive and unpredictable regulatory approval processes as well as a failure of state policies to recognize the necessary, complementary relationship between variable renewable energy resources and natural gas-fired generation have frustrated its ability to do so. And, as discussed above, natural gas-fired power generators lack the incentive to purchase the firm transportation services that they need and that would support the development of additional infrastructure.

ISO-NE has proposed several means of addressing generators' lack of an incentive to purchase firm natural gas transportation. The interstate natural gas pipeline industry supports efforts to develop (1) "state regulated cost-of-service infrastructure investments coupled with contracting for the necessary energy"; (2) "FERC-regulated cost-of-service rates for recovering investments in infrastructure and forward energy supply chain arrangements"; and (3) "FERC regulated wholesale electric market tariffs that rely on uniform clearing price mechanisms to incent investments in infrastructure and forward energy supply chain arrangements." But New England cannot afford to debate implementation of these measures for years as part of a drawn-out stakeholder process or to find out years later that the Commission does not approve whatever

[16] *Id.*

implementation plan ISO-NE's stakeholders proposed. The Commission should take an active lead in establishing a process for implementing ISO-NE's proposed reforms in a timely and efficient manner.

The Commission likewise cannot let its own certificate review process be an impediment to addressing these infrastructure problems. Critical infrastructure projects with adequate financial support must be able to move forward in a timely manner. The Commission must promote an efficient, predictable, and consistent review of certificate applications. To promote this type of review, the Commission should, at a minimum, do the following for any proposed project requiring authorization under Natural Gas Act Section 3 or 7 to serve New England:

- Issue an order on the certificate application within 18 months of receipt;
- Approve or deny any qualifying rehearing requests within 30 days; and
- Coordinate federal and state agencies' reviews pursuant to federal law necessary for authorization of the project and expedite those reviews to prevent federal or state agencies from using delay as a means to obstruct a project.

As ISO-NE recognizes, the transition to variable renewable energy resources will take time and New England needs natural gas infrastructure now. The Commission should not decline to act based on unrealistic expectations regarding the speed with which a full transition to renewables backstopped by emerging storage technologies will occur.

4. The Commission cannot rely on false solutions to see New England through this crisis.

The Commission must account for the following principles when considering potential solutions to the imminent threat to the reliability of New England's electric bulk power system.

The clean energy transition will take years to complete; clean energy resources and transmission will not be in place in time to address the crisis. Secretary Granholm has explained

that "deploy[ment] of clean technologies . . . is a transition" and that the United States is "pragmatic about what it means"—"it won't happen overnight."[17] And ISO-NE recognizes that "[t]he clean energy transition is a long journey and . . . the region will be reliant on much of the existing fleet, and the fuels they utilize, for many years to come."[18] Given the dire consequences of a failure of the electric bulk power system, New England cannot afford to continue living "close to the edge" for years. Federal, state, and local governments must support the reality that New England will need *more* natural gas infrastructure, not less, to maintain reliability during the years- to decades-long clean energy transition.[19]

Policies that obstruct natural gas infrastructure development will frustrate the goals of the clean energy transition. In New England, "[p]ipeline constraints can also affect regional air emissions . . . because [ISO-NE] has to run higher-emitting generators when gas-fired units can't access fuel or when the price of natural gas spikes."[20] Increased reliance on oil generation during the cold spell that spanned the end of 2017 and beginning of 2018, for example, caused "daily carbon dioxide emissions [to rise] to an average of over 220,000 short tons, up from 100,000 short tons per day leading up to the cold snap."[21] More recently, New England power plants generated

[17] Hon. Jennifer Granholm, Secretary, United States Department of Energy, CERAWeek Keynote Luncheon and 1:1 Fireside Chat with S&P Global's Dan Yergin (Mar. 9, 2022).

[18] Letter from Gordon van Welie, President and CEO, ISO New England, to NEPOOL Participants Committee (Jan. 31, 2022), https://tinyurl.com/2p9ef4dn.

[19] *See* Matina Stevis-Gridneff and Somini Sengupta, *Europe Calls Gas and Nuclear Energy 'Green'*, N.Y. Times (Jul. 6, 2022), https://tinyurl.com/2s4hd727.

[20] ISO-NE, *Natural Gas Infrastructure Constraints*, https://tinyurl.com/2esj2pyd; *see also See* EIA, *New England natural gas and electricity prices increase on supply constraints, high demand* (Feb. 3, 2022), https://tinyurl.com/mwsxzyfk ("Natural gas pipeline constraints limited the amount of natural gas that could be delivered to power plants, leading to the reactivation of several power plants that burn fuel oil to help meet electricity demand."); Gerson Feitas Jr. and Naureen S. Malik, *New England Power Plants Burn Most Oil Since 2011 as Gas Soars*, Bloomberg (Feb. 22, 2022), https://tinyurl.com/2p8ed549; Our Russian 'pipeline', and its ugly toll", Editorial Board, Boston Globe (Feb. 13, 2018) ("The real-world result of pipeline absolutism in Massachusetts this winter has been to steer energy customers to dirtier fuels like coal and oil, increasing greenhouse gas emissions.").

[21] ISO-NE, *Natural Gas Infrastructure Constraints*, https://tinyurl.com/2esj2pyd.

an estimated 4.18 million metric tons of CO2 in January 2022, up from 2.77 million metric tons in January 2021, with the region's heavier reliance on oil accounting for most of the difference.[22]

The threat to New England's electric bulk power system is clear, and more study only increases the risk of a reliability failure. As discussed above, ISO-NE has been sounding the alarm regarding the reliability of New England's bulk electric power system for years, and its concerns are supported by ample studies and data. Additional study of problems that are already clear will take additional time and increase the risk that a reliability failure will occur. The Commission cannot afford delay, especially when prior studies demonstrate the need for natural gas and the market can readily and efficiently determine the amount of natural gas needed.

Communication and coordination cannot create capacity. The Commission has taken action to facilitate communications among pipelines and ISO-NE, but additional communication will not address the fundamental issue that there is not enough pipeline infrastructure to serve both LDCs and natural gas-fired generators on New England's coldest days. As a NERC official stated, "[e]very ounce of efficiency has been squeezed out of [gas-electric coordination]. And coordination really doesn't let more gas flow."[23]

Additional LNG imports may dampen the impacts of the crisis but, standing alone, are neither a long-term nor affordable solution for New England. While LNG is a valuable tool to ensure reliability, global demand for LNG is strong, growing, and causing significant increases in the prices of LNG. Without firm commitments for LNG, New England cannot be certain that it will be able to obtain sufficient amounts of LNG through the competitive global LNG market.

[22] ISO-NE Consumer Liaison Group Meeting, March 10, 2022.

[23] Robert Walton, *'Batteries aren't going to do it': NERC's Moura calls for gas investment to maintain reliability*, Utility Dive (July 21, 2022), https://tinyurl.com/3dj5e33d.

Even if New England is able to obtain sufficient LNG, it will pay a significant premium to do so. This substantial cost burden on American families is unnecessary and avoidable; additional pipeline infrastructure could link New England to the abundant, domestic natural gas supplies in the Appalachian region.

Respectfully submitted,

/s/ Kim Watson

Kim Watson