Gordon van Welie
President and Chief Executive Officer

February 10, 2023

The Honorable Sheldon Whitehouse
United States Senate
Washington, DC 20510

The Honorable Jack Reed
United States Senate
Washington, DC 20510

The Honorable Richard Blumenthal
United States Senate
Washington, DC 20510

The Honorable Bernard Sanders
United States Senate
Washington, DC 20510

The Honorable Margaret Wood Hassan
United States Senate
Washington, DC 20510

The Honorable Jeanne Shaheen
United States Senate
Washington, DC 20510

The Honorable Angus S. King, Jr.
United States Senate
Washington, DC 20510

The Honorable Elizabeth Warren
United States Senate
Washington, DC 20510

The Honorable Edward J. Markey
United States Senate
Washington, DC 20510

The Honorable Peter Welch
United States Senate
Washington, DC 20510

The Honorable Christopher S. Murphy
United States Senate
Washington, DC 20510

Dear Senators Whitehouse, Blumenthal, Hassan, King, Markey, Murphy, Reed, Sanders, Shaheen, Warren and Welch:

I am writing in response to your letter dated January 30, 2023 concerning Winter Storm Elliott and ISO New England's implementation of Operating Procedure No. 4 (OP-4)[1] to manage a limited, short-duration capacity deficiency on Christmas Eve, December 24, 2022.

[1] ISO New England Operating Procedure No. 4 (OP-4), *Action During a Capacity Deficiency*; https://www.iso-ne.com/static-assets/documents/rules_proceds/operating/isone/op4/op4_rto_final.pdf

While there has been a lot of interest in the impact the storm had on the electricity systems across other parts of the country, New England as a whole did not experience the full brunt of the storm. Consequently, the operating conditions on that day in New England were not extraordinary and the ISO has well-established tools to manage capacity shortfalls. The public was not in imminent danger of an emergency or outages on the *bulk power system* (although there were several hundred thousand customers without power on December 23 and 24 due to storm-related damage that affected the electric distribution systems in the region).

The high prices resulting from the capacity deficiency worked to attract resources to fill the need for operating reserves. While the region was deficient in operating reserves for a short period of time during the peak hours of December 24, the ISO utilized established procedures to take action to mitigate the depth and duration of the deficiency. The ISO has been raising concerns about the fuel supply limitations that could lead to energy shortages during extended periods of cold weather, but this was not that type of event.

The ISO notifies designated government emergency communications contacts whenever we implement OP-4 or emergency actions affecting the power system. In addition, we post regular updates through multiple ISO communication channels, including the ISO New England website,[2] the ISO Express data portal,[3] the *ISO Newswire*,[4] and the *ISO to Go* mobile app,[5] so the public has visibility on the bulk power system.

Underlying Causes of the Capacity Deficiency
I will address the underlying causes of the recent capacity deficiency and provide a breakout of the resource types that experienced unexpected operating issues on that day.

Two primary factors led to the implementation of OP-4 and the capacity scarcity condition that triggered scarcity pricing on December 24. First, generator outages and reductions totaling approximately 2,275 megawatts (MW) occurred across the operating day. Second, net imports to New England were less than the quantity that cleared the Day-Ahead Energy Market (approximately 1,100 MW less at the time OP-4 actions were implemented).

The generator outages or reductions primarily involved the following types of technologies:

- Generators that use only natural gas
- Dual-fuel generators (i.e., those resources that can burn natural gas or oil)
- Generators that use residual fuel oil (RFO), and
- Generators that use distillate fuel oil (DFO).

[2] ISO New England homepage; https://www.iso-ne.com/

[3] ISO Express; https://www.iso-ne.com/markets-operations/iso-express/

[4] *ISO Newswire*; https://isonewswire.com/

[5] *ISO to Go* mobile app; https://www.iso-ne.com/about/news-media/iso-to-go/

While these were the technologies most impacted by outages and reductions, they still accounted for about half of the region's energy sources during the peak hour on December 24. Other significant sources of energy were nuclear, imports and hydropower.

The primary underlying causes of the generating capacity reductions were mechanical problems, such as stuck valves, fuel-pump failures, vibration, other unexpected equipment failures, gas-scheduling issues, and emissions-related restrictions.

We evaluated the timing of the generator outages and reductions (totaling approximately 2,275 MW) and determined that of this amount:

- 1,245 MW occurred between the issuance of the Morning Report, around 8 a.m., and noon
- 340 MW occurred between noon and 4 p.m.
- 150 MW occurred between 4 p.m. and 4:30 p.m. when the ISO implemented OP-4 actions, and
- 540 MW occurred following the implementation of OP-4 (at 4:30 p.m.) and through the peak hour of 6 p.m.

The ISO received notifications from generators of their unplanned outages and reductions beginning in the early morning hours on December 24. Based on information reported to the ISO, 36 generators experienced unplanned outages or reductions (of varying magnitude) during the peak hour that contributed to the capacity deficiency.

Attachment A provides a breakout of generator outages and reductions by type, cause, and location.

In addition to generator outages and reductions, a significant amount of reductions occurred around 3 p.m. on the transmission line from Québec to New England (known as the Phase 2 line). This reduction was a deviation from the Day Ahead Market, which establishes the foundation for the operating day. Big deviations from the Day Ahead Market, whether from generators or imports, could compromise the reliability of the bulk power system during the operating day. When there is a capacity deficiency in real time, the market signals that deficiency in the form of higher prices. In this instance, the market functioned as designed and supply resources that could respond to the high prices in a timely fashion did so.

Weatherization of Power Plants

Power plants in New England are accustomed to operating in cold weather and are generally able to operate through cold weather periods. Nevertheless, cold weather does put added stress on equipment and the ISO is accustomed to operating through these types of unplanned outages by shifting to other resources that may not have cleared in the Day-Ahead Energy Market, but may be available to operate in the Real-Time Energy Market.

For the past several years, prior to each winter season, the ISO has surveyed the entire generation fleet regarding their winter preparations and limitations associated with operations during cold weather conditions. We do this under the survey provision of ISO New England Operating Procedure No. 21 - *Operational Surveys, Energy Forecasting & Reporting and Actions During An Energy*

Emergency (OP-21).[6] We use this information to gather situational awareness of the generating fleet's ability to operate at extreme temperatures. In general, our experience has been that the New England generating fleet takes appropriate steps to ensure their readiness for weather conditions expected in New England. During this particular storm there was only a small number of outages where the impacts of cold weather were reported as the direct cause (e.g., freezing of equipment). During very cold weather when the gas pipelines into New England are constrained and natural gas prices are high, the market shifts to older, oil-fired generators, which do not run very often (on an annual basis, oil generation typically provides less than one percent of the region's total electricity production). Given the age and infrequent operation of these facilities, they tend to have higher outage rates when called upon to start than most resources in the fleet.

Operating Reserves and Broader Reserve Needs in New England

The heightened interest in this particular December 24 capacity deficiency is likely attributable to the infrequency of such events. It is possible to further minimize the likelihood of declaring OP-4 in the future, but that objective would need to be balanced with the implications for consumers who would bear the added cost of potentially committing surplus resources (over and above what the weather forecast indicates is needed) on a day-to-day basis, or operating to higher operating reserve requirements. I do not believe it is in the region's best interest (nor is it possible) to eliminate all conditions that could result in a capacity deficiency, and I do not think that should be a priority.

I strongly agree with you that action is needed beyond maintaining operating reserves, but that action is needed in the context of the region's more significant energy adequacy challenges and the transition to a clean energy future. The most significant of these challenges is that the region's natural gas infrastructure is not sufficiently robust to meet the growing demands from the electric sector, especially as winter electricity demand is forecast to increase dramatically in the coming decades due to electrification of transportation and heating. While ISO New England's responsibilities extend only to the electric grid, the lack of sufficient gas supply and transportation infrastructure (over which we do not have jurisdiction) will pose continuing risks to the reliability of the bulk power system upon which both the retail electric and gas distribution systems depend. Ultimately, a reliable bulk power system depends on adequate and resilient energy inputs. Over time, renewable energy will need to provide increasing amounts of that input energy to achieve the states' goals to decarbonize the electric grid and electrify other sectors of the economy.

These infrastructure and reliability challenges are not unique to New England, as has been vividly demonstrated in a number of events during the past few years. These issues are again receiving close scrutiny by policymakers and regulators around the country, including the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC), which have initiated a joint inquiry into the events surrounding Winter Storm Elliott. These issues remain unresolved in large part because the highly interdependent gas and electric systems are separately regulated at both the federal and state level, resulting in poor coordination and insufficient regulatory requirements to ensure that the gas system can adequately support both gas heating and electricity customers under certain

[6] ISO New England Operating Procedure No. 21 (OP-21), *Operational Surveys, Energy Forecasting & Reporting and Actions During An Energy Emergency*; https://www.iso-ne.com/static-assets/documents/rules_proceds/operating/isone/op21/op21_rto_final.pdf

circumstances. These regulatory gaps and/or inconsistencies are making it increasingly difficult to ensure the reliable and successful transition of these two industries to clean energy.

We are concerned that the potential for energy shortfalls in New England could grow as older coal and oil resources, or existing gas system infrastructure such as the Everett liquefied natural gas (LNG) terminal, retire before sufficient quantities of renewable energy, energy efficiency and demand response, or emerging long-duration energy storage technologies are available to offset those retirements. In September 2022, the ISO issued a statement indicating that the region must ensure the continued operation of the Everett LNG Facility to maintain reliable electric and natural gas service for New England consumers.[7] The statement was issued for discussion with federal and state regulators and other regional stakeholders at the FERC's New England Winter Gas-Electric Forum in Burlington, Vermont.

In order to meet the New England states' clean energy and climate policy objectives, including electrification of heating and transportation, annual electricity demand in New England is forecasted to nearly double over the next few decades. In addition, the region will switch to a winter-peaking power system by the early 2030s, with peak electricity demand in the winter forecasted to grow to approximately 57 gigawatts (around 2.5 times the all-time winter peak). These changes will present energy adequacy challenges and will require resource and demand flexibility, increases in the reserve margin, and additional transmission system capacity. These are among the initial findings of the ISO's 2050 Transmission Study[8] and Future Grid Reliability Study.[9]

Resource Capacity Accreditation and other Market Enhancements
As you point out, the ISO is in the process of revising the resource capacity accreditation (RCA) for resources that participate in the region's Forward Capacity Market, and the accreditation process will take into account forced outages. The RCA process alone, however, is not intended to fully address reliability needs as the resource mix continues to change. The ISO is also developing a Day Ahead Ancillary Services Initiative (DASI) that seeks to procure and transparently price the ancillary service capabilities needed to meet real-time energy demand and deliver a reliable, next-day operating plan with an evolving generation fleet. ISO New England's Strategic Plan goes into further detail describing the Four Pillars that we believe are needed for a successful clean energy transition.[10]

Remedies and the Appropriate Use of Operating Procedures to Ensure System Reliability
Your letter stated that the ISO must take immediate steps to remedy the underlying causes of the event. The remedy during this event was to switch to other available resources that were able to start and deliver electrical energy at short notice. The high prices during the capacity deficiency provided strong incentives for other resources to over-perform to offset the underperformance of certain resources that

[7] Draft Problem Statement and Call to Action on LNG and Energy Adequacy, ISO New England, September 9, 2022; https://www.iso-ne.com/static-assets/documents/2022/09/ad22-9_problem_statement.pdf

[8] 2050 Transmission Study (in progress), ISO New England; https://www.iso-ne.com/search?key-topic=Longer-Term%20Transmission%20Studies&query=2050%20transmission%20study

[9] 2021 Economic Study: Future Grid Reliability Study Phase 1, July 29,2022, ISO New England; https://www.iso-ne.com/static-assets/documents/2022/07/2021_economic_study_future_grid_reliability_study_phase_1_report.pdf

[10] Vision in Action: ISO New England Strategic Plan, October 2022; https://www.iso-ne.com/static-assets/documents/2022/10/2022-strategic-plan-vision-in-action.pdf

had been committed through the Day Ahead Market. The "Pay for Performance" (PFP) provisions in the ISO's markets worked as intended to attract the resources needed to address the capacity deficiency. All resources that were not performing during the PFP event, regardless of the reason, were assessed a penalty for not meeting their obligation. Under PFP, payments to non-performing and under-performing resources are transferred to over-performing resources (at no additional cost to consumers).

Your letter stated that the ISO "did not have enough supply to meet operating reserve requirements and it invoked its Operating Procedure 4 (OP-4)." As soon as we knew that we were going to be deficient, we took all remaining viable actions (e.g., committing available generation, reducing exports on ties with neighboring power systems) to mitigate the depth and duration of the deficiency. The peak demand on December 24 was approximately 17,500 MW, which was well below the winter peak forecast of approximately 20,000 MW, and well below the more than 20,000 MW of available capacity going into the operating day. The region has sufficient capacity overall to meet the forecasted winter and summer peak demand on the grid; the ISO's role is to line up the lowest-priced resources to meet the region's demand for electricity each day without overcommitting resources, which would add costs for consumers and skew price formation in the wholesale markets.

The potential for capacity deficiencies is a known, and accepted, possibility in planning a reliable power system. The solution to the problem is having operating procedures that can restore operating reserves, having sufficient capacity resources to make up the shortfall, and having an incentive structure in place to attract those resources to fill the gap. New England had all of these on December 24.

At no time on December 24 was the New England region close to an emergency situation. The ISO implemented four separate actions of OP-4 for a short, two-and-a-half-hour period, and some of those actions were in effect for an even shorter period of time. Your letter states, "Thankfully, the shortfalls did not lead to rolling brownouts or blackouts." It is always possible that circumstances could have been worse, for example much longer duration, or more frequent, cold weather events (such as occurred in the winters of 2013/14 or 2017/18), or greater contingencies such as described in the scenario analyses that were contained in our 2018 Operational Fuel Security Analysis report.[11]

We are currently working with the Electric Power Research Institute (EPRI) to produce a more complete analysis that will inform our region of the operating risks associated with extreme weather events. We hope to release preliminary results by mid-2023. This analysis will inform future discussions with regional stakeholders, regulators and policymakers on how best to address the region's energy adequacy risks.

Accuracy of the ISO's Load Forecast

The ISO publishes monthly updates on the accuracy of its daily load forecast. We are continually working to improve the accuracy of those forecasts, particularly to account for the growing variability of solar facilities that operate on the electric distribution system, but affect the demand on the bulk power system. On December 24, lower-than-forecasted daytime temperatures contributed to higher-than-expected energy demand throughout the daylight hours; however, the ISO's peak hour load forecast was highly accurate.

[11] Operational Fuel-Security Analysis, July 17, 2018, ISO New England; https://www.iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf

The ISO is leading an initiative to enhance weather analytics and load forecasting. This initiative will expand the number of cities modeled in our weather forecasts and add weather attributes to improve the forecast accuracy of the zonal and regional operational load forecast models. The ISO also recently completed an enhancement of behind-the-meter photovoltaic forecasting capability. This initiative is featured in the ISO's Annual Work Plan[12] and is one of the "Load, Solar, Wind Forecast Improvements" listed in the ISO's Roadmap to the Future Grid.[13]

Opportunities for Demand Resources
The ISO dispatched approximately 300 MW of demand response resources during the peak hours on December 24, and initial data indicates approximately 140 MW of response from those resources.

ISO New England has been a leader in providing opportunities for demand resources, which includes energy efficiency and demand response, to participate in all of the region's wholesale electricity markets, including the capacity, energy, and reserve markets. We have already prioritized those opportunities within the wholesale market design and would welcome more robust demand response to help meet winter reliability needs. The wholesale markets provide price signals for these resources to respond; however, there is currently a lack of sufficient state-regulated retail demand-side participation in the market. We believe there is significant potential for the states to further develop opportunities for demand resources and we look forward to working with policymakers and regulators to make continued progress in that area.

Conclusion
Your letter states that ISO New England must act swiftly to make sure constituents do not suffer worse fates than the effects of Winter Storm Elliot. I can assure you that ISO New England has acted deliberately and in close coordination with the states and our regional stakeholders to put forward solutions to address the potential for both short-duration capacity shortfalls and longer-duration energy shortfalls. The ISO has well-established tools to manage capacity shortfalls. We have significantly enhanced our capability to forecast and communicate the risks of region-wide, energy security shortfalls, but there are vulnerabilities in the region's energy system that are not within the ISO's ability to control.

I was recently invited to meet with some state lawmakers in New England to discuss the energy challenges facing the region. I want to share the information and perspectives we provided because they are relevant to the important issues raised in your letter. The presentation, titled, *ISO New England's Role in the Region's Energy Transition*, is posted on the ISO website.[14]

As you correctly observed, ISO New England has long raised concerns about limited fuel infrastructure and the possibility for a prolonged cold period leading to an energy emergency in New England. That risk persists in New England and is exacerbated by the War in Ukraine, which is driving up global demand and

[12] 2023 Annual Work Plan, October 2022, ISO New England; https://www.iso-ne.com/about/corporate-governance/annual-work-plan

[13] 2022-2025 Roadmap to the Future Grid, June 2022; https://www.iso-ne.com/static-assets/documents/2022/09/npc_20220621_future_grid_roadmap.pdf

[14] Connecticut General Assembly Energy & Technology Committee Informational Forum, January 31, 2023; https://www.iso-ne.com/static-assets/documents/2023/02/iso_ne_van_welie_ct_et_comm_2023_01_31_.pdf

the price for liquefied natural gas. LNG is an important alternative fuel source for gas-fired generators in New England during cold weather when the pipeline infrastructure into the region is constrained. We have taken a number of steps to strengthen energy security in the region through collaboration with the New England states and our stakeholders, but there is more work to be done. I would welcome the opportunity to meet with you to discuss the risks and potential solutions for our region, including the results of our work with EPRI to model the operational impacts of extreme weather.

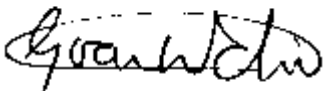
Finally, I observe that the ability to address the risks discussed in this letter is constrained by the separate regulation of the electric and gas systems. These regulatory paradigms were established many years ago when these two energy systems were independent and have resulted in significant differences in reliability planning and operating standards, market approaches and business practices. However, as described above, these systems are now highly interdependent, creating additional challenges to a reliable clean energy transition. There is growing evidence that reliability and price volatility issues will be exacerbated as the electric system uses less gas on average, but more gas during winter peaks caused by severe cold snaps and a gradual shift of heating demand to the electric grid. It will be costly to invest in new gas infrastructure that has a progressively lower utilization, particularly if there is uncertainty regarding the economic life of the infrastructure, and therefore such investments should be carefully considered and coordinated between the two industries.

As a general matter, as the clean energy transition progresses, the electric system will require increasingly large quantities of balancing energy to ensure reliability when renewable resources cannot produce. Natural gas is by far the biggest balancing energy source today. In the future, other technologies or clean fuels will gradually displace the need for gas, but this will take many decades. Based on recent events in other regions, and our experience in New England over the past two decades, it is becoming clear that the resolution of the reliability risks will require more precise coordination of the gas and electric industries than what has historically occurred. We look forward to working with you and FERC to address these complex issues.

I have asked Eric Johnson, the ISO's director of external affairs, to follow up with your staff to share any further information or analysis produced by the ISO related to the December 24 event and to keep you apprised of any changes to our operating procedures, as you requested. I would be pleased to meet with you in-person in New England, in Washington, D.C., or virtually, to discuss these issues further.

Thank you for your continued attention to these matters.

Sincerely,



Gordon van Welie
President & Chief Executive Officer

cc: Chair and Commissioners of the Federal Energy Regulatory Commission
New England States Committee on Electricity (NESCOE)

ATTACHMENT A

The following table provides a breakout of generator outages and reductions by type, cause, and location.

Type of Outage or Reduction	**# of generators experiencing outages or reductions**	**Capacity reductions from generators experiencing outages or reductions** (MW)	**Types of generators experiencing outages or reductions** (as a % of the total MW value of outages or reductions)	**Causes of generator outages or reductions** (as a % of the total MW value of outages or reductions)	**Location of generators experiencing outages or reductions** (# of generators, % of all generators experiencing an outage or reduction)
Full Outages	25	1,603	Dual Fuel (25.8%) Distillate Fuel Oil (DFO) only (12.5%) Residual Fuel Oil (RFO) only (17.6%) Gas only (14.5%)	Mechanical (47.5%) Gas Scheduling (14.5%) Emissions (5.8%) Miscellaneous (2.6%)	CT (18, 50%) MA (4, 11.1%) Rest of System (3, 8.3%)
Partial Outages (Reductions)	11	674	Dual Fuel (6.7%) RFO only (11.6%) Miscellaneous (11.2%)	Mechanical (17.3%) Emissions (1.4%) Miscellaneous (10.9%)	CT (2, 5.6%) MA (7, 19.4%) Rest of System (2, 5.6%)
Total: (Full Outages + Partial Outages)	36	2,277	Dual Fuel (32.5%) DFO only (12.5%) RFO only (29.2%) Gas only (14.5%) Miscellaneous (11.2%)	Mechanical (64.7%) Gas Scheduling (14.5%) Emissions (7.2%) Miscellaneous (13.6%)	CT (20, 55.6%) MA (11, 30.6%) Rest of System (5, 13.9%)

Notes:

- Data is specific to the peak hour (hour ending 18) of December 24, 2022 and is based upon information reported by generators or, where applicable, as determined by ISO.
- Megawatt (MW) values are approximate and outage/reduction values are reflective of ISO's expectations for capacity available from each generator during the peak hour on December 24, 2022. MW values in the table are not based on generator capacity supply obligation values.
- DFO includes ultra-low sulfur diesel, jet fuel, and kerosene; RFO is #6 fuel oil.
- Mechanical means mechanical problems such as stuck valves, fuel pump failures, vibration, or other unexpected equipment failures.
- The Rest of System category is aggregated to prevent the inadvertent disclosure of competitive information.

United States Senate

WASHINGTON, DC 20510

January 30, 2023

Gordon van Welie
President and CEO
ISO New England
One Sullivan Road
Holyoke, MA 01040

Mr. van Welie:

The devastating bomb cyclone Winter Storm Elliott left more than 500,000 customers across the New England region without power during the holiday season.[1] Coincident to these outages, the Independent System Operator-New England (ISO-NE) experienced a region-wide, unanticipated capacity deficiency caused by power generators not being able to fulfill their obligations. While not a problem unique to ISO-NE, ISO-NE must explain and take immediate steps to remedy the underlying causes of this event.

ISO-NE has long raised concerns about limited fossil fuel infrastructure and the possibility for a prolonged cold period leading to an energy emergency. This recent incident, however, was not an energy emergency. It was an unexpected loss of 2,150 megawatts (MW) and an under-delivery of 100 MW of imported generation during the evening system peak.[2] As a result, ISO-NE did not have enough supply to meet operating reserve requirements and it invoked its Operating Procedure 4 (OP-4) for the first time since Labor Day 2018. Thankfully, the shortfalls did not lead to rolling brownouts or blackouts. But the winter is not yet over, and it is clear that action is needed beyond maintaining an operating reserve.

We would like to understand what events led to ISO-NE declaring a capacity deficiency on Christmas Eve and how ISO-NE plans to avoid such a declaration in the future. We ask that you provide us with answers to the below questions by February 10, 2023.

- When did ISO-NE first receive notice that generators were experiencing difficulties fulfilling obligations?

- How many generators were unable to fulfill part or all of their obligations? Please specify a number and the number that partially fulfilled, the number that did not fulfill in their entirety, and by state. Within each category, specify the total capacity obligation, the type of generation facility, and the cause(s) of generator outages.

- What percentage of these facilities were weatherized to withstand the conditions of Winter Storm Elliott?

[1] https://thehill.com/policy/energy-environment/3787126-more-than-1-million-without-power-across-us-amid-winter-storm/

[2] https://www.iso-ne.com/static-assets/documents/2022/12/op4-report-nepool-committees-12-24-22.pdf

- ISO-NE is in the process of revising its resource capacity accreditation methodology. Will the underlying causes of the Christmas Eve outages be captured in ISO-NE's evaluation of the risks to reliability facing the thermal fleet?

- ISO-NE's January 2023 NEPOOL Participants Committee Report suggests that ISO-NE's load forecast has suffered inaccuracies, notably during the winter.[3] Inaccuracies, even if small on a percentage basis, can turn into larger system-wide challenges when compounded by other events. How is ISO-NE working to improve the accuracy of its load forecasts?

- Please explain the role demand response played during the Christmas Eve event, and outline steps ISO-NE is taking or plans to take to ensure that demand response is prioritized as a solution to meeting winter reliability needs.

We acknowledge ISO-NE is considering possible remedies to OP-4.[4] We also acknowledge that the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation launched an investigation into the failures resulting from Winter Storm Elliott across regional transmission organizations. ISO-NE, however, must act swiftly to make sure our constituents do not suffer worse fates. In addition to answering the questions outlined above, we ask that you inform us of updates you make to OP-4. Climate change means that bomb cyclones like Winter Storm Elliott are more likely to happen again. We appreciate your assistance in making sure ISO-NE is as well prepared as it needs to be.

Sincerely,

Sheldon Whitehouse
United States Senator

Richard Blumenthal
United States Senator

Margaret Wood Hassan
United States Senator

Angus S. King, Jr.
United States Senator

[3] https://www.iso-ne.com/static-assets/documents/2023/01/january-2023-coo-report.pdf, page 23.
[4] *Ibid*, page 121.

Edward J. Markey
United States Senator

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Elizabeth Warren
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