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IR 15-047

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Debra A. Howland
Executive Director
New Hampshire Public Utilities Commission
21 S. Fruit St., Suite 10
Concord NH 03301

RE: IR 15-047, November 2014 Snowstorm After Action Review

Comments of Eversource Energy on After-Action Report of November 26, 2014
Thanksgiving Snowstorm New Hampshire's Regulated Utilities' Preparation and
Response


Dear Director Howland,

On October 20, 2015, the Commission Staff issued its "After-Action Report of November 26, 2014 Thanksgiving Snowstorm New Hampshire's Regulated Utilities' Preparation and Response" (the "Report"). The Report contained the Staff's assessment of the activities of the State's electric utilities relative to the preparation for, and response to, the November 2014 Snowstorm. In its October 20, 2015 Secretarial Letter (issued in Docket No. IR 15-458) the Commission provided the electric utilities until November 19, 2015 to file comments in response to the Report.

Accordingly, please find enclosed with this letter the comments Public Service Company of New Hampshire d/b/a Eversource Energy on the Report.

Please contact Dean C. Desautels, PSNH's Manager of Emergency Preparedness, should you have any questions. Thank you for your assistance with this matter.

Very truly yours,



Matthew J. Fossum
Senior Counsel

Enclosure
Cc: Tom Frantz, Randy Knepper

2014 Thanksgiving Snowstorm - November 26, 2014 to November 30, 2014

Response of Public Service Company of New Hampshire d/b/a Eversource Energy on the After Action Report of November 26, 2014 Thanksgiving Snowstorm Prepared by Commission Staff

Docket No. IR 15-047

Executive Summary

Public Service Company of New Hampshire d/b/a Eversource Energy (“Eversource” or the “Company”) hereby submits its comments, corrections and clarifications in response to the report prepared by the Staff of the New Hampshire Public Utilities Commission (“Commission”) entitled After Action Report of November 26, 2014 Thanksgiving Snowstorm issued September 29, 2015 (the “Report”).

Eversource works diligently to restore power and maintain its integrated transmission and distribution system to provide its customers with safe and reliable electric service. Well in advance of major storms, such as the Thanksgiving Snowstorm, the Company continually monitors the pending weather event and begins preparations to ensure that when customers experience outages from the storm, Eversource is ready and able to restore power and repair any damage to the system as efficiently and safely as possible.

Eversource continues to be committed to improving its response to major system outages, and will continue to work collaboratively with the Commission and others to ensure that there is always a safe, prompt, efficient, and appropriate Company response to system outages. Eversource’s ultimate goal is to ensure public safety from electrical hazards, and minimize the impact to our customers from extreme weather events.

On November 26 and 27, 2014, New Hampshire experienced an intense heavy, wet, snowstorm. The weight of the snow caused numerous tree-related failures and extensive damage to the electric system. Over 40 percent of the Eversource customer base (approximately 207,000 customers) lost power during the event, making it the fourth most severe storm in the Company’s 88 year history, and the fifth major storm event for the state’s electric utilities since 2010.

The storm caused damage across the entire state; however, the hardest impacted areas of the state were the Company’s Central, Southern and Western Regions. Most communities in these regions reported over 12” of snow with Madison reporting the highest total in the state at 18.4”. Notwithstanding the severity of the storm, the Company’s well-planned response to this major weather event led to a restoration of electric service to our customers that was completed in record time with a focused effort on restoring key economic centers. For comparison, the October 2011 “Snowtober” major storm had 237,000 Eversource customers without power but required more than six days to substantially complete restoration. As of Sunday, November 30, only 3 days after the Thanksgiving Snowstorm event, fewer than 1,500 Eversource customers remained without power and nearly all of those were restored later that same day.

As a critical part of its restoration effort, Eversource has developed and implemented an Emergency Response Plan (“ERP”) that aligns with the National Incident Management System (NIMS), the Incident Command System (ICS) and the Commission’s regulations. The ERP provides guidance for the monitoring of events that pose a potential risk to the electric system as well as classification guidelines for the hazard. The Company uses an Energy Event Index (“EEI”) provided by Schneider Electric Weather Services (“Schneider”) to gauge the potential event severity based on the forecasted weather, with an EEI of 1 being least severe and an EEI of 5 being catastrophic.¹

The forecasted weather hazard and potential event severity assists in determining the preparedness and response strategies for the Company, including the need to pre-stage resources that may be required for restoration. These decisions are made using an analysis of the predicted hazard as it relates to the actual impact of previous, similar events. Additionally, a number of factors, including availability of local company resources, external contracted resources, and Eversource affiliate resources, are used to guide the Company’s strategy.

On Monday, November 24, 2014 Eversource discussed the possibility of a holiday storm during the Company’s daily Reliability Conference Call. At that time there were no formal weather related advisories from either Schnieder or the National Weather Service. The Company, however, conducted an extensive evaluation of available field and support resources due to the potential storm impact over the Thanksgiving holiday. As a result, the Company determined to proactively assess and secure contracted resources in the event the forecast deteriorated.

On Tuesday, November 25, 2014 at approximately 6:00 a.m. Schneider issued a weather forecast with an EEI of 2 with “medium” confidence due to the potential of heavy snow and high winds across two regions of the Company’s service territory. Eversource issued a company-wide Weather Advisory with a Readiness Condition of “Monitoring” in response to the forecast. Shortly thereafter, the Company increased the Readiness Condition to “Warning” based on forecast information from the National Weather Service. In addition, the Company announced that all internal and contracted resources then on the system would be held through the duration of the event. A 2:00 p.m. Eversource-wide Storm Preparation Call confirmed a forecast showing a minimal weather impact in the Connecticut and Massachusetts affiliate areas, and confirmed the availability of Eversource line crews should New Hampshire sustain significant damage.

Early in the morning on Wednesday, November 26th, Schneider issued its latest forecast with an EEI of 3 for Central South, Lakes and Western Regions with “high” confidence. In response, Eversource immediately issued a revised Weather Advisory and confirmed the availability of 51 line worker contractor crews to be staged prior to the storm’s impact. The Company’s Incident Command Center (“ICC”) was partially activated at noon that day in anticipation of weather related outages and to assist with the deployment of additional resources to impacted areas.

Eversource began incurring storm-related damage and customer outages mid-afternoon on Wednesday, November 26th. The Company immediately responded to system damage with a

¹ For clarity, Eversource notes that on the EEI scale provided by Schneider, an event described as a Level 1 is the least severe and a Level 5 is the most severe. In contrast, the Event Level tables included in the Commission’s rules, as well as in Eversource’s ERP, describe a Level 5 event as the least severe and a Level 1 event as the most severe.

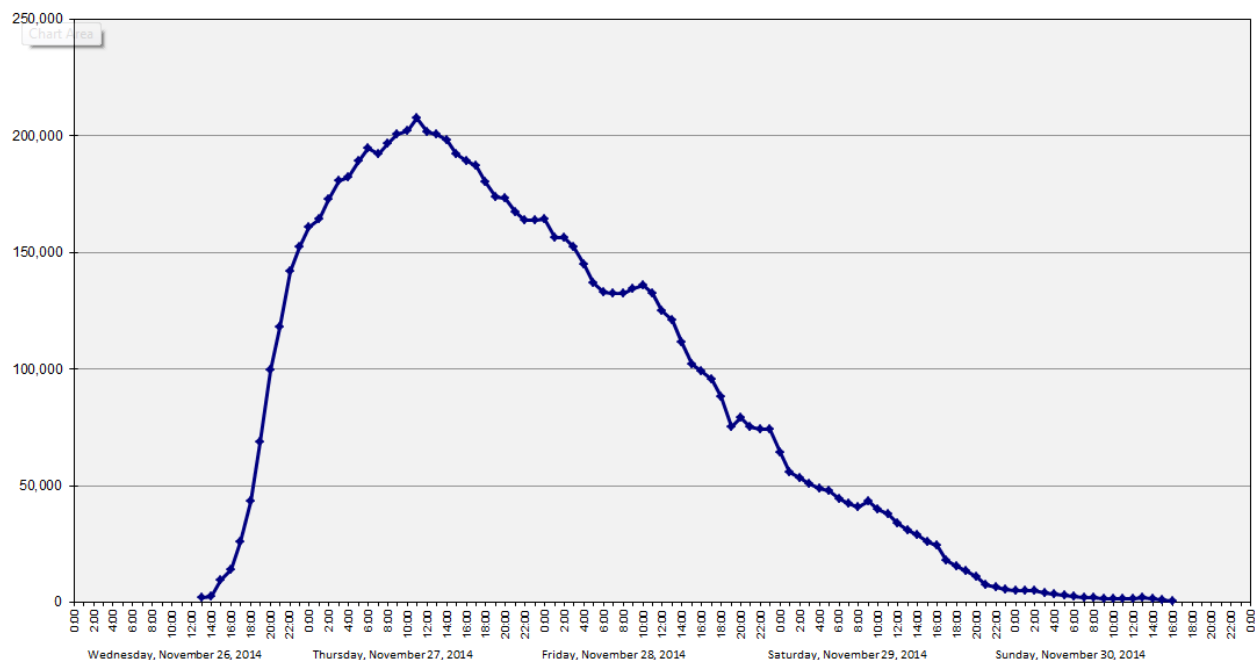
force of more than 70 internal crews, supported by 51 local contractor crews. In addition, 92 tree trimming crews and 10 service crews were deployed strategically throughout the State. As outage events multiplied, the Company continued to assess event damage and to request additional restoration resources. The procurement process continued throughout the day on Wednesday, November 26th, and Thanksgiving Day, November 27th, with Eversource reaching out for available utility and contractor resources beyond the New England area, including crews from Hydro Quebec.

At the peak of the restoration the Company had deployed:

- 81 internal line crews
- 119 Eversource affiliate line crews (CT and MA)
- 417 contractor/foreign utility crews
- 245 tree trimming crews

Eversource was able to take strategic advantage of the three-state operation of its parent by utilizing management teams from its sister companies to manage critical restoration activities as well as electric service work in the hardest hit areas. Additionally, support resources, such as damage assessment teams, logistics, planning, and safety were also secured and deployed in support of the restoration. In total, the Company used approximately 1,050 of these support resources to assist in New Hampshire.

At the peak of the storm, 207,359 Eversource customers were without power on Thursday, November 27, 2014 at 11:00 a.m. Due to the significant amount and number of resources dedicated to the restoration, power was restored to nearly all customers by early Sunday afternoon, November 30th. In total, 355,921 Eversource customers were impacted by the event for some period of time. The Company closed the ICC at 4:00 p.m. on Sunday. The pace at which Eversource was able to repair its system and restore power to its customers is illustrated in the following graph:



The majority of the damage caused during the Thanksgiving Snowstorm was from branch and tree failures triggered by the heavy, wet snow. The vegetation damage led to numerous locations where wires were knocked down or broken, but relatively few poles were broken. During the restoration the Company replaced 59 poles, 157 cross arms and 129 transformers and re-strung 97,803 feet of conductor.

As with prior significant outages, Eversource conducted an extensive After Action Review of the Thanksgiving Snowstorm event in accordance with its established procedures and guidelines. Each of the Company's operating regions as well as each functional storm organization (i.e., Logistics, Planning, Communications, etc.) conducted a post storm "lessons-learned" team meeting. Feedback from these meetings included organizational strengths and organizational opportunities, as well as overall comments on the Company's overall restoration response. This feedback was consolidated and analyzed by the Emergency Preparedness organization to identify trends, root causes, and prepare notes for a facilitated "lessons-learned" session with designated Section Chiefs, Branch Directors, and Unit Leaders.

The storm presented many challenges to the State's electric utilities. As noted in the Staff's report on the Thanksgiving storm, "At its peak, the storm resulted in over 238,000 of New Hampshire's approximately 700,000 electric utility customers losing power concurrently, which for many customers in the state means losing water and heat, as well as the use of lighting and electric appliances. The loss of power affected a population of approximating 480,000 [equivalent to nearly 37% of the 1.3 million New Hampshire citizens]. Utility line crews and personnel resources worked long and difficult hours to restore power. It should be noted as well that no significant injuries to restoration crews occurred during the restoration period. That result indicates the high degree of value placed on safety by all four electric utilities, for which they should be commended."

Since the 2008 ice storm that devastated the electric system in New Hampshire, Eversource has been continually working to improve its response to major storms with a focus on planning, logistics and securing line and tree crews before the outages occur. A key aspect of this advance planning process is the timing and accuracy of the weather forecasts provided by Schneider and other expert weather services. As the Company's timeline described above clearly shows, once the weather forecasts for the Thanksgiving Snowstorm indicated that New Hampshire may be impacted, Eversource took immediate action to secure additional crews and staff to be well prepared for the storm.

However, the Company's actions during the storm do not tell the full story of how Eversource has been continually upgrading its integrated electric system to better withstand major weather events. The Company has invested hundreds of millions of dollars into hardening and automating its electric system to not only be resistant to outages, but also to be able to quickly restore power once it is lost. Additionally, the Company spends over \$20 million each year on tree trimming along roadways and rights of ways as well as removing "hazard" trees that are outside the standard trim zone. On certain critical circuits the Company uses Enhanced Tree Trimming (ETT) methods to completely remove all vegetation near electric lines to further minimize tree-related outages. In combination, these investments have resulted in an electric system that is more resilient to weather-related and non weather-related outages than it has ever

been in the Company's entire history. The Company has been able to achieve this due the continued support of the Commission and Staff who clearly believe that preventing outages, to the extent possible, is the best investment the Company can make. On this point, Eversource and the Commission are in total agreement.

Included in the following pages are more detailed comments Eversource has on particular and specific items contained in the Staff's report. While Eversource understands and appreciates the nature of the Staff's after-the-fact review, the Company believes that there are various aspects of the Report that would benefit from clarification or correction, or that would be improved by a more thorough explanation and understanding of the context of surrounding circumstances. Eversource stands ready to work with the Commission and its Staff to continue to improve its systems and processes to better resist weather-related events, and to better serve the citizens of New Hampshire. In particular, Eversource is prepared to participate in any Commission-led studies or committees to better understand the impact of severe weather on New Hampshire.

**COMMENTS AND RESPONSES OF PUBLIC SERVICE COMPANY
OF NEW HAMPSHIRE D/B/A EVERSOURCE ENERGY ON THE AFTER-ACTION
REPORT OF THE NOVEMBER 26, 2014 THANKSGIVING SNOWSTORM**

Public Service Company of New Hampshire d/b/a Eversource Energy (“Eversource” or the “Company”) provides the below comments on the September 29, 2015 “After-Action Report of November 26, 2014 Thanksgiving Snowstorm” (the “Report”) as prepared by the Staff of the New Hampshire Public Utilities Commission and filed in Docket No. IR 15-047. The comments follow in the order of the Report and are intended to demonstrate where Eversource believes the Report contains inaccuracies that require clarification or correction, and/or to indicate Eversource’s disagreement with particular conclusions contained in the Report. Additionally, following Eversource’s specific comments are Eversource’s responses to various recommendations in the Report indicating Eversource’s position on the recommendation and the status of those recommendations.

COMMENTS BY SECTION

I. Overview

1. P. 1:

“This storm was the first wide-scale emergency storm event to occur during a major holiday, Thanksgiving, and the effect of the holiday time period upon restoration efforts was noticeable.”

Eversource Comment:

Eversource disagrees with the conclusion that the effect of the holiday period was “noticeable.” There is no factual basis in the Report to support the statement that the timing of the event impacted restoration efforts.

2. P.3, footnote 6:

This footnote indicates inconsistent reporting of peak Eversource customers impacted by the 2014 Thanksgiving Snowstorm as between Eversource’s January 2015 self-assessment and March 2015 data responses.

Eversource Comment:

Eversource believes this conclusion requires correction. The filed response to Staff 1-001 (12/12/2014) states the peak Eversource customer impact for the 2014 Thanksgiving Snowstorm as 207,359 customers. The filed response to Staff 2-010 (6/26/2015) also states a peak Eversource customer impact of 207,359 customers. Finally, the Eversource (PSNH) Storm Report filed January 29, 2015 states a peak customer impact of 207,359 customers. The data response of March 27, 2015 referenced in the report was for data

associated with customers impacted by town and not a system peak, as was explained in that response.

III. Findings and Corrective Actions

3. P. 6, Finding 1:

“Heavy wet snow blanketed the majority of the state and occurred when most trees were devoid of leaves. These conditions are not unusual for New Hampshire during late November and often cause major outages. As a result, such conditions should be taken into account in electric distribution outage planning. This was the first wide-scale storm to occur during a major holiday period (Thanksgiving). [The significance of the holiday] affected the level of resources available to respond in a timely manner and the restoration efforts of the affected electric utilities.”

Eversource Comment:

Eversource believes this finding should be clarified or corrected. Rather than heavy, wet snow blanketing the state such as occurred in the 2014 Thanksgiving Snowstorm being “not unusual” for New Hampshire in late November, the National Oceanic and Atmospheric Administration (NOAA) Northeast Snowfall Impact Scale (NESIS) lists the November 2014 event as the ONLY significant November event since 1956. The November 2014 snowstorm ranks 51 in the top 57 events. (<https://www.ncdc.noaa.gov/snow-and-ice/rsi/nesis>). Accordingly, Eversource believes that such events are, in fact, unusual.

4. P. 6, Finding 2:

“Although the precise area and level of impact of the 2014 Thanksgiving Snowstorm may have been difficult to predict, it was clear by early Tuesday, November 25 that New Hampshire was going to receive at least 8 to 10 inches of heavy wet snow resulting in a high likelihood of wide-scale and prolonged power outages..”

Eversource Comment:

Eversource disagrees with this finding. The Schneider forecast from 6 AM Tuesday (Staff 02-002, pages 185-190) clearly states a “Medium” confidence in the forecast and further states the “localized” possibility of 8-10" of heavy wet snow. National Weather Service (“NWS”) forecasts for the same period corroborate the “moderate” confidence in forecast as well as “uncertainty” in the snow/rain line definition.

5. P.6, Finding 5:

“After six historic wide-scale storms, there is no definitive specific report that quantifies the economic and social impact of wide scale storm events for the businesses and citizens of New Hampshire. The Staff recommends that the Commission form a committee with no more than two representatives from each utility, Staff and other applicable state agencies to assist in developing a request for proposal to provide an economic report. The report shall consider and determine the cost impact and hourly impact for delays of power restoration upon the New Hampshire state economy using data from each of the previous wide-scale storms that collectively affected over 150,000 customers per storm. Economic, social and safety costs should be quantified. It is imperative that utilities cooperate by providing data of storm expenditures and by assisting in developing the RFP. The Staff recommends that the Final Report be completed prior to July 2016 and submitted to the Commission for review.”

Eversource Comment:

Eversource is willing and prepared to participate meaningfully in the formulation of a committee to develop an RFP, and to further participate in any studies or reports that might be generated following that process.

6. P. 7, Finding 3:

“Utilities rely heavily on weather forecast reports from their contracted weather forecast provider to determine if a forecasted weather event is severe enough to cause extreme damage to their electrical system. Based on the forecast received, utilities may or may not begin the process of pre-staging line crews prior to the storm event. Good utility practice would dictate that utilities not rely solely on one weather forecast from one weather forecaster as the only data point utilized to make decisions regarding whether to pre-stage line crews. It is imprudent to rely so heavily on a single forecast to determine an effective response to potential wide-scale weather events. By not utilizing many data points to determine the potential effects a pending storm could have on a utility’s electrical system, the utility places itself in a poor planning position in the case of a less accurate single forecast.”

Eversource Comment:

This finding implies that relying upon private weather service forecasts does not comport with “good utility practice” or may be “imprudent.” Eversource disagrees with this conclusion and believes there is no basis for it. Further, the Report fails to acknowledge use of NWS forecasts in addition to private forecasts, and which were described in Eversource’s responses to the Staff’s data requests.

7. P. 8, Finding 6:

“PSNH’s lack of a predetermined system of damage prediction, including estimates of anticipated potential customer’ [sic] outages and potential duration of restoration in their ERP, affected their ability to effectively respond to the damage on their electrical system caused by the 2014 Thanksgiving Snowstorm. As a result, some PSNH customers were without power longer than necessary.”

Eversource Comment:

Eversource disagrees with this conclusion. There is no factual basis provided to support the statement that Eversource customers were without power longer than necessary.

8. P. 8, Finding 7:

“The classification of emergency events by level of impact and severity allows a utility to make a more accurate prediction of damage expected from forecasted weather events.”

Eversource Comment:

Eversource disagrees that classifying events by the level of impact provides more accurate predictions of damage. There is no direct correlation between the accuracy of the predicted damage and the pre-event classification. The pre-event classification is based solely on the pre-event predicted impact, which, in turn, is directly linked to the probability and the accuracy of the pre-event weather forecast.

9. P. 8, Finding 8:

“PSNH typically does not pre-stage external crews from other states prior to the onset of major storm events.”

Eversource Comment:

Eversource disagrees with this statement. The Company routinely pre-stages crews from other states, including for the 2014 Thanksgiving Snowstorm as well for other events in 2012, 2013 and 2014. Crews routinely pre-staged from Eversource’s “local” contractor list include resources from Massachusetts (State Electric, Grattan Line, McDonough Electric, ElecComm) and Maine (Coutts Brothers, Haugland, On Target). These companies, as well as other New Hampshire contractors, are utilized before Eversource reaches out to its parent company for additional contractor resources. Eversource began proactively asking local contractors their availability as early as Monday, November 24, 2014, as indicated in the response provided to Staff 2-006 (6/26/2015).

10. P. 8, Finding 8.c.:

“PSNH management did not pre-stage additional external crews for the 2014 Thanksgiving Snowstorm from other states as was done for the December 2013 potential ice storm that never ultimately materialized. This may be due primarily to the weather forecasts used prior to the day of the 2014 Thanksgiving Snowstorm. Also, the timing of the storm event just prior to a major holiday impacted line crew availability compared to crew availability in the December 2013 potential storm. This indicates a lack of commitment to attaining an effective contingency of additional external line crews until after the storm damage had occurred.”

Eversource Comment:

Eversource disagrees with numerous conclusions in this finding. Initially, with respect to the conclusion that the Company did not pre-stage, as noted in the prior comment and in the related data responses, Eversource did pre-stage additional external crews for the 2014 Thanksgiving Snowstorm from other states. Additionally, the forecasted hazard and associated risk prior to the December 2013 weather event was drastically different in terms of impact and forecast confidence from the 2014 Thanksgiving Snowstorm.

Second, with respect to the statement that the timing of the event impacted line crew availability, Eversource disagrees with the statement. There is no information to support the conclusion that holiday period impacted crew availability, and Eversource clarifies that the timing of the event did not impact the Company’s ability to secure additional resources.

With respect to the conclusion that the Company showed a “lack of commitment,” there is no factual basis for the statement and Eversource strongly disagrees with any such conclusion. Decisions made concerning attaining additional external line crews, including those pre-staged prior to the event impact, were based on forecasted event severity and potential impact.

11. P. 13, Finding 6:

“The weather forecasts PSNH receives includes forecasts for all of Eversource’s service territory in Connecticut, Massachusetts and New Hampshire (12 sub regions in total) which includes the PSNH’s five regions within the report. The format supplied by the weather service forecast provider within the written narrative appears to be inconsistently presented from day to day with little emphasis directly on New Hampshire other than an EEI index.”

Eversource Comment:

Eversource disagrees as there is no factual basis for the finding. The forecasts received from Schneider Electric are broken out by state and have a forecast and discussion specific to New Hampshire.

12. P. 13, Finding 8:

“While not specifically stated within their ERP, PSNH also receives additional weather related data points such as the National Weather Service in Grey, Maine. These additional data points should be useful in validating any one forecast that the utility may rely on for their own “probability of confidence” in a forecast received. While PSNH may have considered the additional National Weather Service information for comparison to the Schneider Electric forecasts for the 2014 Thanksgiving Snowstorm it did not result in any further advancement or implementation of quicker response actions.”

Eversource Comment:

Eversource does not agree with the finding. Initially, this finding appears to contradict findings on page 7 of the Report concerning the use of weather forecasts outside of those provided by the private weather service. Additionally, the Company clarifies that decisions concerning response actions were based on forecasts received from multiple sources.

13. P. 14, Finding 1:

“Although PSNH and UES held internal conference calls and internal emergency response planning meetings throughout the day on Tuesday, November 25, each utility was unable to identify the ultimate magnitude and effects of the 2014 Thanksgiving Snowstorm, and did not obtain a sufficient amount of additional external (from out-of-state) line crews early enough, thereby delaying restoration by at least a day in some communities.”

Eversource Comment:

Eversource strongly disagrees with the conclusions that it did not obtain sufficient resources and that the restoration was delayed. There are no factual bases in the Report to support those conclusions. Further, decisions made concerning attaining additional external line crews, including those pre-staged prior to the event, were based on forecasted event severity and potential impact.

14. P. 14, Finding 2:

“Although PSNH and UES did pre-stage additional NH-based contractor line crews for the morning of Wednesday, November 26, additional external line crews from outside the state should have been requested, committed and pre-staged to the largest extent possible.”

Eversource Comment:

Eversource strongly disagrees with this conclusion. Decisions made concerning attaining additional external line crews, including those pre-staged prior to the event, were based on forecasted event severity and potential impact.

15. P.15, Finding 6:

“PSNH and NHEC did not hold daily municipal conference calls with town officials to inform the municipalities of daily action plans for restoration, where crews were going to be located, nor which were the focus and priorities for restoration. PSNH did utilize their community relations’ staff to communicate to municipal officials. PSNH’s process of assigning many different utility personnel to communicate with individual municipalities creates a potential miscommunication throughout all municipalities within a geographic region.”

Eversource Comment:

Eversource disagrees that its processes create potential miscommunication. The Company does not assign many different utility personnel to communicate with individual municipalities, but rather employs assigned Community Relations Specialists or Community Liaisons (when activated) who have existing relationships with communities to ensure an appropriate flow of communication to and from the municipalities.

16. P. 15, Finding 9:

“PSNH could have improved overall response times between 18 hours and 24 hours.”

Eversource Comment:

Eversource strongly disagrees with this conclusion. There is no factual basis in the Report for concluding that response times would have been improved as suggested.

17. P. 16, Finding 11:

“At a minimum, the Holiday ‘effect’ resulted in approximately an additional 5 to 6 hour restoration time for all utilities.”

Eversource Comment:

Eversource strongly disagrees with this conclusion. There is no factual basis in the Report for a “holiday effect” or for concluding that any such effect added 5 to 6 hours in restoration time.

18. P. 17, Finding 5:

“PSNH did not provide the Commission with consistent information regarding line crew levels and availability during the restoration effort of this storm.”

Eversource Comment:

Eversource disagrees with this conclusion and states that it did provide consistent reporting in line with the Commission’s rules throughout this event.

19. P. 19, Finding 2.d.:

“On Saturday morning PSNH began reporting town specific ETRs. The term ‘Substantially Complete’ was used as the current status for many towns in the reporting. This created additional stress to customers still without power and provided no meaningful assistance to customers who needed to make decisions regarding their homes and businesses, especially with regard to heat and water for those customers on private wells.”

Eversource Comment:

Eversource disagrees with the conclusion that the use of the phrase “substantially complete” created stress. As an initial matter, there is no factual support for the conclusion that “stress” was created by the use of the term. Additionally, the term “substantially complete” is a common term in the industry and is used by other New Hampshire utilities. For example, the Report, at pages 62 and 63, notes when Unitil and NHEC had been showing their restorations as “substantially complete.”

20. P. 23-30:

At p. 30, the Report faults Eversource for its conclusion that “The plan does not explicitly provide a clear path for the user to connect the PSNH Schneider Event Index of Table IV-7 to Readiness Conditions Levels of Table IV-8 or to the Commission’s ERP Event Levels of Table IV-1.”

Eversource Comment:

Eversource strongly disagrees with the conclusions and criticism of the Company’s planning and preparedness activities. In the first place, the Report notes that it would generally be referring to Eversource’s ERP filed in March 2015, and notes that the March 2015 does include the ERP Event Levels as required in Puc 306.09(g). See Section 2.5, page 17, of the Eversource ERP. Nevertheless, the Report concludes that Eversource’s plan is inadequate because it does not provide a “clear path” without defining what that means. Further, the Report notes that the event level tables used by NHEC and Unitil do not correspond to the Commission’s requirement but offers no discussion on a “clear

path” or similar issue. Additionally, the section of the report references the Energy Event Index (EEI) chart and the ERP Readiness Conditions with incorrect references.

21. P. 31:

“Staff notes that on October 26, 2012, PSNH filed a Petition for Recovery of Pre-staging Costs through the Major Storm Cost Reserve (MSCR). PSNH proposed to employ an Energy Event Index with five escalating levels of storm severity. For weather events having a “high” probability, that is, greater than 60% of reaching EII Level 3, pre-staging costs would be charged to the MCSR. On February 26, 2013, the Commission issued Order 25,465 approving PSNH’s petition for recovery of pre-staging costs through its Major Storm Cost Reserve, as modified by the December 19, 2012 revised testimony.

During Staff’s meeting with PSNH, PSNH referenced the elements contained in the Major Storm Cost Reserve Order, and stated that those elements affect the determination of pre-staging crews.

Staff emphasizes that the Major Storm Cost Reserve is not the only mechanism to recover prestaging costs; it is one of several remedies available. The recovery mechanisms should have no bearing on the attainment of resources for wide-scale storm events.”

Eversource Comment:

Eversource strongly disagrees with this comment. In Eversource’s opinion, the Report inaccurately summarizes the Company’s discussion with the Staff concerning recovery of pre-staging costs as a determining factor to pre-stage crews. While the pre-staging docket set the standards for determining when and how costs would be recovered, it did not establish explicit criteria for when or to what degree the Company would pre-stage. Triggers for the pre-staging of resources are based on weather forecasts of the type and severity of the expected storm event.

22. P. 34

*“Toward the evening of Tuesday, November 25, local forecasts were **consistently** predicting heavy wet snow to affect central and southern regions of New Hampshire by noon on Wednesday, November 26.”*

Eversource Comment:

Eversource believes this statement should be clarified or corrected because the forecasts were not, in fact, consistently predicting such weather. For example, the Schneider Electric forecast from 6 AM Tuesday (Staff 02-002, pages 185-190) clearly states only a “Medium” confidence in the forecast, and that there was the “localized” possibility of 8-10” of heavy wet snow. NWS forecasts for the same period corroborate the “moderate” confidence in forecast, as well as “uncertainty” in the snow/rain line definition.

V. Restoration Response

23. P. 52, *et. seq.*:

This section of the Report makes numerous comparisons among the utilities relative to the amount of damage and the restoration rate.

Eversource Comment:

Eversource strongly disagrees with the comparisons contained in this section. There is no factual support for many of the conclusions associated with the rates of restoration between utilities and the conclusions do not account for many of the differences in the amount of damage, customer base, and other factors that are relevant to storm restoration.

24. P. 52-53, Table V-1:

According to the Report, the table “displays the magnitude and the overall response time per utility for the 2014 Thanksgiving Snowstorm” and compares the dates and times, per utility, where restorations were complete and lists Eversource as complete at “Monday morning, December 1 (114 hours, 4.75 days).”

Eversource Comment:

Eversource strongly disagrees with the comparisons in this table. There are discrepancies in the data contained in the Report and there are some underlying assumptions that are without support. For example, Table I-1 on page 3 of the Report provides similar data to that in Table V-1, but refers to the information in that table as “Time When Nearly All Restoration Complete” versus “Time When All Restoration Complete,” yet provides no explanation for what the differences between those might be. Further, as noted on page 3 of Eversource’s self-assessment, but not in the Report, the Company had restored virtually all customers (99.9%) by 1500 hours on Sunday, November 30. The Report also does not appear to acknowledge that Eversource, unlike other utilities, owns and restores all equipment down to the customer’s meter, meaning that restorations in its territory often involve additional work. Finally, Eversource notes that the last customer to be restored as a result of the storm did not notify Eversource of the outage until Sunday evening, November 30, after all other customers had been restored. Until the time of the customer’s notification, Eversource had no cause to know of the outage because of the nature of the customer’s service (the only customer linked to a transformer at the end of a circuit). Following the notification late on Sunday, this last customer was restored by 5:00 a.m. on Monday, December 1st.

25. P. 56:

“On Monday, November 24, PSNH assessed its existing internal line crew availability at the local Area Work Center (AWC) level. PSNH’s full complement of internal line crews

was not used. Seventy-two and one-half line crews were to be initially deployed and it wasn't until Saturday that their maximum of 81 internal line crews was deployed."

Eversource Comment:

Eversource strongly disagrees with any conclusion that it did not use its full complement of internal crews. The statement reflects only the assessment of internal resources made on Monday, November 24. The Company deployed all available line resources in response to the event on Wednesday, November 26 and the variation between all internal resources and those available for restoration response includes those individuals not deployed due to illness or injury.

26. P. 57:

"On Friday, November 28 at 9:00 AM, 46 hours after the onset of the storm, additional line crews arrived and there were now 80.5 internal line crews, 52 line crews from PSNH affiliates CL&P or NSTAR, and 125 contractor line crews, with 25 additional pole and service crews for a total of 282.5 crews that were qualified to work on lines."

Eversource Comment:

The conclusion appears to imply that crews from Eversource's affiliates did not arrive until Friday, November 28. Initial Eversource affiliated crews from Massachusetts and Connecticut were dispatched on the evening of Wednesday, November 26th and began arriving at staging sites in New Hampshire by 7:00 AM on Thursday, November 27th. Accordingly, Eversource believes this statement should be clarified.

27. P. 59:

"The three regulated electric companies have arrangements with the Northeast Mutual Aid Group (NEMAG), through which they may request additional resources in the event of a major storm and power outage. PSNH also belongs to the New York Mutual Aid Group. NHEC belongs to the Northeast Association of Electric Cooperatives mutual aid group, the Northeast Public Power Association mutual aid group, and the National Rural Electric Cooperative Association mutual aid group."

Eversource Comment:

As a point of clarification, Eversource is a member of the North American Mutual Aid Group (NAMAG) as established in conjunction with the Edison Electric Institute (EEI) in September 2013.

28. P. 65, Figure V-5

“PSNH Distribution Circuit Line Crew Summary” – Line graph depicting the change in the number of distribution circuit crews working on restoration efforts over the duration of the storm.

Eversource Comment:

The graph appears not to be accurate. The graph appears to show that Eversource had zero crews working at a point 6 hours after the onset of the storm, while Eversource had reported 72.5 internal crews and 23 contract crews as working at that time.

EVERSOURCE'S RESPONSES TO RECOMMENDATIONS

1. P. 9, Report Section III.B. - Recommended Corrective Action 1:

Each utility shall ensure that the ERP Event Levels in their ERP Plan are consistent with the ERP Event Levels that the State of New Hampshire has established in the PUC 300 Rules for Electric Service (NH PUC 306.09(g)). Each ERP for all utilities shall clearly outline how Event Levels are derived from an impending forecast for potential wide-scale storm events.

Eversource Response:

Eversource agrees with the recommendation. The Company's current ERP, dated March 5, 2015, contains the ERP Event Levels as established in Puc 300 Rules for Electric Service (Puc 306.09(g)). Additionally, Eversource will edit its ERP to include a description of the process used to derive predicted Event Levels from an impending forecast for potential wide-scale storm events. ERP revisions will be filed by December 31, 2015.

2. P. 9, Report Section III.B. - Recommended Corrective Action 2:

At a minimum, each utility shall review the data available from the December 2008 Ice Storm, the February 2010 Wind Storm, the 2011 Tropical Storm Irene, the October 2011 Snowstorm, the 2012 Hurricane Sandy and the 2014 Thanksgiving Snowstorm, to develop indices that facilitate the prediction of potential impacts of wide-scale emergency related storms of varying magnitudes. For utilities already utilizing ERP Event Levels as a pre-planning tool, any potential updates to the indices based on the most recent storm event is required to be incorporated within the ERP. Impact indices to be incorporated into each utility's ERP shall be updated to reflect potential impacts and shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

Eversource agrees with the recommendation. The Company will edit its ERP to include a description of the process used to derive predicted Event Levels from an impending forecast for potential wide-scale storm events. However, it has been, and remains, the Company's position that historical event data from several large scale events is not indicative of accuracy of future storm predictions nor potential impact of wide-scale storms. ERP revisions will be filed by December 31, 2015.

3. P. 9-10, Report Section III.B. - Recommended Corrective Action 3:

Each utility shall incorporate into its impact indices factors such as snow accumulations including moisture content variability, ice thickness, average wind speeds and gusts,

foliage conditions, and weather forecast confidence levels that will allow utilities to estimate, by ERP Event Level, the number of predicted customer outages and predicted troubles that could result from a forecasted weather event. For utilities already utilizing ERP Event Levels as a pre-planning tool, any potential updates based on the 2014 Thanksgiving Snowstorm event are required. Any amendments made are to be incorporated into each utility's ERP and shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

Eversource agrees with the recommendation. The Company will edit its ERP to include impact indices such as weather type and number of predicted customer outages into its Event Level matrix. Information regarding predicted troubles is being assessed as the source data has recently evolved with the implementation of the Company's new Outage Management System. Over time Eversource will evaluate the correlation between predicted troubles and the Event Level matrix. ERP revisions will be filed by December 31, 2015.

4. P. 10, Report Section III.B. - Recommended Corrective Action 4:

ERP Event Levels shall also include the predicted number of additional line crews required to restore power to the predicted percentage of potential customers without power as well as to repair the potential number of troubles, per ERP Event Level. Any changes required are to be incorporated into each utility's ERP and shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

Eversource agrees with the recommendation. The Company will edit its ERP to include predicted number of additional line crews required to restore power to the predicted percentage of potential customers without power per ERP Event Level. Information regarding predicted troubles is being assessed as the source data has recently evolved with the implementation of the Company's new Outage Management System. Over time Eversource will evaluate the correlation between predicted troubles and the Event Level matrix. ERP revisions will be filed by December 31, 2015.

5. P. 10, Report Section III.B. - Recommended Corrective Action 5:

PSNH shall update its current ERP plan dated March 5, 2015 to ensure that high consideration is taken to obtain additional external line crews in a more timely manner and pre-staged prior to a predicted wide-scale emergency storm event at the earliest appropriate time after receiving a weather forecast of a pending storm event which is anticipated to potentially affect 10% or more of the customer base. This required change to PSNH's ERP shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

Eversource agrees with the recommendation. The Company will edit its ERP to include a description of the process used to derive predicted Event Levels from an impending forecast for any predicted wide-scale storm events anticipated to potentially affect 10% or more of the customer base. ERP revisions will be filed by December 31, 2015.

6. P. 10, Report Section III.B. - Recommended Corrective Action 6:

The Commission is focused on the goal of minimizing the required time it takes to restore power to each utility's customers during wide-scale emergency storm events. PreStaging line crews prior to the onset of a wide-scale emergency storm event that is forecasted for the service territory of each utility, as well as effectively increasing external line crews at the earliest practical time, will help shorten customer restoration times.

- Each utility shall develop a detailed list (Plan) of potential recommendations on what the utility can do differently to effectively pre-stage line crews prior to the onset of a wide-scale emergency storm event, and effectively increasing external line crews as early as possible.*
- In such detail, the utility will include any changes recommended for consideration for inclusion in Commission rules, or other actions for the Commission to consider that would assist utilities in this effort to pre-stage and effectively increase external line crews as early as possible.*
- Each utility's plan shall be filed with the Commission no later than December 31, 2015.*

Eversource Response:

Eversource agrees with the recommendation. The Company's current ERP, dated March 5, 2015, contains planning provisions to effectively pre-stage line crews prior to the onset of a wide-scale emergency storm event. Eversource will edit its ERP to include predicted number of additional line crews required to restore power to the predicted percentage of potential customers without power per ERP Event Level. ERP revisions will be filed by December 31, 2015.

7. P. 13, Report Section III.C. - Recommended Corrective Action 1:

PSNH should align the geographic regions it receives from the weather forecast service provider with the organizational structured geographic regions it conducts operations from.

Eversource Response:

Eversource agrees with the report recommendation and is currently in negotiations with Schneider Electric Weather Services to implement changes to the forecast regions by December 1, 2015.

8. P. 13-14, Report Section III.C. - Recommended Corrective Action 2:

In addition to the services it currently receives, PSNH should add, at a minimum, a third daily Schneider weather forecast, such as 6:00 PM, when there is a potential for a widescale emergency storm event. This additional forecast was previously identified in the Commission's October 2011 Snowstorm recommendations. PSNH shall exercise its existing contract provisions to receive more frequent written unscheduled proactive forecast updates during potential wide-scale emergency events.

Eversource Response:

Eversource agrees with the recommendation and is currently negotiating with Schneider Electric to include a third daily forecast at 6:00 PM each day.

9. P. 14, Report Section III.C. - Recommended Corrective Action 3:

PSNH shall include in its ERP a process to evaluate the contracted weather forecast services it currently receives from their weather forecast provider to compare against other public or private available forecast information.

Eversource Response:

Eversource does not agree with the recommendation. There is no factual basis for concluding that the forecasts received by the Company were more or less accurate than those provided to other utilities or by other weather providers. The Company will consider analysis of conditions forecast by Schneider and those conditions observed within the Company's service territory.

10. P. 14, Report Section III.C. - Recommended Corrective Action 4:

PSNH after-action reports submitted to the Commission shall include a post-storm-event critique of the forecast(s) they received from their weather service provider(s) prior to the predicted wide-scale emergency related storm event to determine the accuracy of the predictions they are receiving from their weather forecasting provider. PSNH shall utilize the knowledge obtained from each of their post-storm-event critiques to improve their ERP pre-storm planning and preparedness.

Eversource Response:

Eversource has concern about this recommendation. Initially, and similar to the above response, there is no basis to conclude that the forecasts received by the Company were

more or less accurate than those provided to other utilities or by other weather providers. Moreover, as Eversource has noted in response to other findings and recommendations, each storm is different and historical information may not provide clear or useful information for predicting future events. While the Company believes it might be appropriate to compare the conditions forecast by Schneider with the conditions actually observed within the Company's service territory, such comparisons may not yield information useful in improving the Company's "ERP pre-storm planning and preparedness."

11. P. 16, Report Section III.D. - Recommended Corrective Action 1:

PSNH's OMS will be fully installed and effectively operable by the end of September 2015. PSNH shall provide the Commission a report on the status and expectations of the utility's GIS integration with OMS by November 15, 2015. PSNH shall also schedule a demonstration of the utility's OMS with integrated GIS for Commission Staff by December 1, 2015.

Eversource Response:

Eversource agrees with the recommendation and conducted a demonstration of the OMS to Commission Staff on Friday, November 6, 2015.

12. P. 16, Report Section III.D. - Recommended Corrective Action 2:

All utilities shall add Major Holiday periods in each of their ERPs to address the need to accelerate standard planned actions when monitoring weather forecasts and the need to enhance/anticipate the preplanning and pre-staging of line crews prior to and during Major Holiday periods. These required changes shall be incorporated into each utility's ERP and shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

Eversource disagrees with the recommendation. There is no record of information to support a conclusion that the holiday period of the Thanksgiving Snowstorm impacted the Company's ability to secure internal or external resources. The Company will, however, edit its current ERP to further outline the process used to assess all available resources based on the predicted threat.

13. P. 17, Report Section III.E. - Recommended Corrective Action 1:

Utilities that procure and coordinate resources through their parent companies shall document those decisions as well as notes of decisions made by the parent utility concerning response and recovery actions. These decision points shall be included in future Post-Storm After-Action Reviews.

Eversource Response:

Eversource agrees with the report recommendation and currently documents all coordination and decisions made concerning procurement and coordination of resources, including those with the parent organization.

14. P. 17-18, Report Section III.E. - Recommended Corrective Action 2:

Each utility shall include in its Emergency Response Plan procedures for pre-staging crews in the event of wide-scale emergencies that have the potential of affecting 10% or more of customer the base. The Plan shall:

a) Provide a methodology for determining how many crew resources will be needed based on forecasts.

b) Pre-establish an available pool of resources.

c) Factor in travel times.

d) Incorporate its own historical restoration data as well as relevant data from other utilities from detailed reviews of the most recent wide-scale storms.

e) Provide for the cancellation of employee vacations as needed for major storm events.

Any changes required are to be incorporated into each utility's ERP and shall be filed with the Commission no later than December 31, 2015.

Eversource Response:

The Company will edit its ERP to include a description of the strategy and process used to derive predicted Event Levels from an impending forecast for any predicted wide-scale storm events anticipated to potentially affect 10% or more of the customer base. ERP revisions will be filed by December 31, 2015.