

**THE STATE OF NEW HAMPSHIRE  
BEFORE THE  
SITE EVALUATION COMMITTEE  
DOCKET NO. 2015-04**

**SUPPLEMENTAL PRE-FILED DIRECT TESTIMONY OF ROBERT D. ANDREW**

**APPLICATION OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
D/B/A EVERSOURCE ENERGY  
FOR A CERTIFICATE OF SITE AND FACILITY FOR CONSTRUCTION OF A NEW  
115 kV TRANSMISSION LINE**

**THE SEACOAST RELIABILITY PROJECT**

**July 27, 2018**



**Qualifications and Purpose of Testimony**

1  
2 **Q. Please state your name and business address.**

3 A. My name is Robert D. Andrew. I am employed by Eversource Energy Service  
4 Company as a Director, System Solutions. My business address is 780 N Commercial St,  
5 Manchester, NH 03101. Eversource Energy Service Company provides centralized services to the  
6 Eversource Energy operating subsidiaries, including Public Service Company of New Hampshire  
7 d/b/a Eversource Energy (“PSNH”).

8 **Q. Briefly summarize your educational background and work experience.**

9 A. My educational background and work experience were included in my direct pre-  
10 filed testimony filed with the NH SEC Application dated April 12, 2016 and have not changed  
11 since then.

12 **Q. What is the purpose of this supplemental testimony?**

13 A. The purpose of my testimony is respond to certain arguments made by some  
14 parties in this docket and to provide additional and updated information to the NH SEC about the  
15 reliability of the transmission system in the Seacoast Reliability Project (the “Project” or “SRP”)  
16 area and the need the Project addresses.

**Impact of the Project on Seacoast Region**

17  
18 **Q. Some parties have argued that the Project is not in the best interest of the  
19 communities in the Seacoast Area. From a system reliability standpoint, please describe  
20 how the Project affects the communities in the Seacoast Area?**

21 A. There are two major ways that the Project will benefit the Seacoast Area, which  
22 consists of the towns east of Manchester, NH to the shoreline and from Rochester, NH south to  
23 the Massachusetts border, through improved electric reliability for customers in the Seacoast  
24 Area. First, the Project will improve reliability for the customers served by the Madbury and  
25 Portsmouth substations to which the line will directly connect. Second, the Project will improve  
26 reliability across the entire Seacoast Area by addressing reliability violations for various  
27 contingencies within the area. SRP enables the Seacoast Area’s transmission system to meet the  
28 national, regional, and New England region’s reliability standards. As described further below,  
29 the construction of the Project will directly serve the public interest by providing reliable  
30 electricity to residents and business in the Seacoast Area. Without SRP, under certain system  
31 conditions, the Seacoast Area’s reliability was below the required standards, which was

1 previously documented by ISO-NE's NH/VT 2020 Needs Assessment.

2 **Q. Please describe with specificity how the Project will improve reliability for**  
3 **the customers supplied by the Madbury and Portsmouth Substations.**

4 A. The Project will directly benefit the four host communities, as well as numerous  
5 other towns and communities in the Seacoast Area. The Portsmouth Substation serves the City  
6 of Portsmouth, the Town of Newington, and Pease. Portsmouth currently has a single transformer  
7 and is supplied by a single transmission line, loss of either cause an outage to all customers  
8 normally supplied by the substation. The Portsmouth Substation is approximately ten years old  
9 and was built with the intention of eventually retiring the aging Resistance Substation (which is  
10 nearby). Resistance Substation is also a single transformer supplied by a single transmission line.  
11 Load growth in the Portsmouth area (Pease Tradeport) has delayed this effort. The ultimate plan  
12 is to expand the Portsmouth Substation (by adding a second transformer) and to retire the  
13 Resistance Substation due to age and the condition of the infrastructure. The Project will provide  
14 a second transmission supply to Portsmouth Substation, improving the reliability of electric  
15 supply to customers in Portsmouth and Newington (including the Pease area) who are currently  
16 supplied by both the Portsmouth and Resistance Substations.

17 The Madbury Substation serves the towns of Durham (including the University of New  
18 Hampshire) and other towns listed below. The Project will add an additional transmission line  
19 supply to the Madbury substation and will specifically resolve contingencies that create low  
20 voltage (and potential voltage collapse conditions) in the Madbury, Dover, Rochester and Tasker  
21 Farm Substation areas.

22 The Town of Durham, as one of the communities supplied by the Madbury Substation,  
23 will directly benefit from the improved reliability provided by the new transmission line to the  
24 Madbury Substation.

25 The other area Towns that are supplied from Madbury, Dover, Rochester and Tasker  
26 Farm Substations also directly benefit (approximately 87,000 electric customers). More  
27 specifically, the following towns supported by specific substations in the region, will directly  
28 benefit from additional electric reliability as a result of the construction of the Project.

29 

- **Madbury Substation** serves all or parts of the following Towns (approximately  
30 30,000 electric customers): Madbury, Barrington, Durham, Lee, Dover,  
31 Newmarket, Newfields, Nottingham, Pittsfield, Epsom, Northwood, Strafford,

1 Barnstead, and Deerfield.

- 2 • **Dover Substation** serves all or parts of the following Towns (approximately  
3 24,000 electric customers): Dover, Rollingsford, Somersworth, and Rochester.
- 4 • **Rochester Substation** serves all or parts of the following Towns (approximately  
5 25,000 electric customers): Rochester, Barrington, Dover, Farmington, Milton,  
6 Middleton and New Durham.
- 7 • **Tasker Farm Substation** serves all or parts of the following Towns  
8 (approximately 8,000 electric customers): Milton, Middleton, Brookfield,  
9 Wakefield, Farmington, and Rochester.

10 **Q. Will the Project provide benefits to the entire Seacoast area?**

11 A. Yes. When the ISO-NE and Eversource studied the Seacoast Area it was studied  
12 as the electric system east of the Deerfield and Scobie Pond Substations. There was a suite of  
13 projects submitted by Eversource and approved by ISO-NE to meet the area's transmission  
14 reliability needs, which included SRP. This suite of projects works in concert to address the  
15 reliability needs of the entire area, not just specific towns.

16 When SRP was originally approved in 2013, there were certain conditions under which  
17 the loss of two transmission lines in the Seacoast Area could have resulted in a significant loss of  
18 customer load (multiple substations). Since this time other reliability projects in the area, that  
19 were part of the same suite of projects as SRP, have been constructed. Though the system's  
20 reliability improved with the construction of these other projects, SRP is the last piece to enable  
21 the system to meet the national (NERC), regional (NPCC), and New England regional (ISO-NE)  
22 reliability standards.

23 The reliability standards for the electric system are in place to enable the system to  
24 maintain supplying power to customers during normal and abnormal system events; such as the  
25 loss of system equipment due to severe weather. Eversource is required to comply with the  
26 above standards per the ISO-NE Open Access Transmission Tariff and the Transmission  
27 Operating Agreement. Non-compliance with the standards could result in the unnecessary loss  
28 of power to customers in the Seacoast Area and possible monetary penalties for non-compliance  
29 with the NERC standards.

1           **Q.     You made reference to the NERC, NPCC, and ISO-NE reliability standards.**  
2           **Please explain what these standards are and how they related to the Project.**

3           A.     One result of the 2003 Blackout Event was that Congress passed the 2005 Federal  
4 Power Act. The Act delegated to the FERC the authority to create and implement national  
5 standards for electric system reliability. The FERC then authorized the Northeast Electric  
6 Reliability Corporation (NERC) to become the ERO (Electric Reliability Organization). NERC  
7 then used their authority to create Reliability Standards intended to apply across the entire  
8 country. The first issue of these standards became effective in June of 2007. Standards are  
9 periodically updated to clarify and implement new requirements.

10           NERC and FERC periodically audit entities compliance with the requirements of the  
11 Reliability Standards and have the authority to issue fines for non-compliance (up to \$1 million  
12 dollars per day, per event).

13           The NERC “TPL” (Transmission Planning) Reliability Standards require studies that  
14 document the transmission system’s compliance with the requirements of the TPL Standards.  
15 When studies show that an area of the transmission system does not comply with TPL Standards,  
16 the responsible entities (in this case ISO-NE and Eversource) are responsible for the  
17 determination and implementation of system changes to resolve the identified deficiencies. SRP  
18 is one of the solutions identified in the NH/VT 2020 Study.

19           **Q.     What happens if Eversource is not in compliance with these standards?**

20           A.     Eversource could be subject to penalties up to \$1 million per day as allowed by  
21 Federal law. The Project will enable the Seacoast Area’s transmission system to meet the  
22 national, regional, and New England region’s reliability standards.

23           **Q.     Does this conclude your supplemental testimony?**

24           A.     Yes it does.