

STATE OF NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE

Docket No. 2015-05

Joint Application of New England Power Company  
d/b/a National Grid and Public Service Company of New Hampshire  
d/b/a Eversource Energy for a Certificate of Site and Facility

**DECISION AND ORDER GRANTING APPLICATION  
FOR CERTIFICATE OF SITE AND FACILITY**

**October 4, 2016**

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## **I. INTRODUCTION**

On August 5, 2015, New England Power Company d/b/a National Grid (NEP) and Public Service Company of New Hampshire (PSNH) d/b/a Eversource Energy (collectively Applicant) filed a Joint Application for a Certificate of Site and Facility (Application) with the Site Evaluation Committee (Committee). The Application seeks the issuance of a Certificate of Site and Facility (Certificate) approving the siting, construction and operation for a new 345 kV electric transmission line (Project). This Decision and Order memorializes the deliberations of the Subcommittee and sets forth the reasons for the granting of the Application and issuance of a Certificate.

## **II. PROCEDURAL HISTORY**

The Application seeks authority to site, construct and operate a new 345 kV electric transmission line within the existing transmission right-of-way between the NEP-owned Tewksbury 22A Substation in Tewksbury, Massachusetts and the PSNH-owned Scobie Pond 345 kV Substation in Londonderry, New Hampshire. App. 1, at 6. The Applicant updated and supplemented the Application on October 16, 2015, December 31, 2015, February 19, 2016, May 19, 2016 and June 10, 2016. App. 1, 19, 20, 21.

On August 11, 2015, Counsel to the Committee forwarded correspondence to all state agencies that appeared to have permitting, licensing or other regulatory authority over matters covered in the Application. Counsel to the Committee requested that each state agency review the relevant portions of the Application and advise the Committee if the Application contained sufficient information to consider the issuance of any permits, conditions, or licenses within the jurisdiction of the agency. No state agency reported that the Application was incomplete.

On August 11, 2015, Counsel to the Committee also forwarded correspondence to the Towns of Derry, Hudson, Litchfield, Londonderry, Pelham, Salem and Windham notifying each municipality of the filing of the Application consistent with RSA 541-A:39, and the procedures to intervene in the proceeding. Similar letters were sent to the Hillsborough County Board of Commissioners, the Rockingham County Board of Commissioners, the Southern New Hampshire Planning Commission and the Nashua Regional Planning Commission.

On August 12, 2015, a Subcommittee was appointed to consider the Application filed in this docket.

On August 25, 2015, F. Anne Ross was designated as Presiding Officer in this docket.

On August 20, 2015, Counsel to the Committee requested the appointment of an Assistant Attorney General as Counsel for the Public pursuant to RSA 162-H:9. On September 1, 2015, the Attorney General formally designated Assistant Attorney General, Christopher G. Aslin to serve as Counsel for the Public in this docket.

On October 5, 2015, the Subcommittee found that the Application contained sufficient information to carry out the purposes of RSA 162-H.

On October 8, 2015, the Presiding Officer issued a Procedural Order scheduling public information sessions pursuant to RSA 162-H:10, I-a, a prehearing conference, and setting forth a deadline for motions to intervene. Pursuant to the Procedural Order, public information sessions were conducted on October 29, 2015 and November 4, 2015, in Windham and Pelham.

On November 5, 2015, the Subcommittee received a Motion to Intervene from Ms. Margaret Huard and her Motion to Intervene was granted on November 30, 2015.

On November 10, 2015, the Subcommittee Chairman issued Orders and Notices of Public Hearing pursuant to RSA 162-H:10, I-c. Public hearings were held on December 8, 2015 and December 9, 2015 in Hudson and Londonderry, accordingly.

A Prehearing Conference was held on December 3, 2015. A Report of the Prehearing Conference and the Procedural Schedule were issued on December 7, 2015.

The adjudicative hearing in this docket was held on June 13 and 14, 2016. During the adjudicative hearing, the Applicant presented testimony of its witnesses who were cross-examined by Counsel for the Public and Ms. Huard. Ms. Huard also presented testimony and was cross-examined. The Subcommittee also posed questions to several of the witnesses.

The Subcommittee deliberated on June 14 and July 11, 2016.

On July 7, 2016, Ms. Huard filed a Motion for Site Visit. Ms. Huard requested the Subcommittee to inspect the following: (i) a location between Structure #85 and the house located at 24 David Drive; (ii) environmentally sensitive areas along the right-of-way, including the Robinson Pond watershed from David Drive to Lenny Lane/Breakneck Road and Kienia Road; (iii) the road crossing on Lenny Lane; (iv) the crossing over Howard Brook, on Kienia Road in Hudson, New Hampshire; (v) the “absence of brown self-weathering structures” in the right-of-way; (vi) the Route 93 crossing after Exit 4 in Londonderry; (vii) the crossing at 140 Derry Road in Hudson; and (viii) the Robinson Road crossing at 20 Robinson Road in Hudson. Ms. Huard asserted that the Subcommittee should visit and observe these sites so that it could observe the appearance of self-weathering steel structures and their impact on aesthetics. The Applicant objected to Ms. Huard’s request.

The Subcommittee addressed Ms. Huard’s Motion prior to continuing its deliberations on July 11, 2016. The Subcommittee noted that Ms. Huard’s Motion was filed after the record had

already been developed and closed. The Subcommittee further noted that it received exhibits and testimony addressing the impact of the Project, including its structures, on aesthetics.

Considering the exhibits and testimony that were presented to the Subcommittee, the Subcommittee found that a site inspection of the areas requested by Ms. Huard would be duplicative and would not assist the Subcommittee in reaching a determination in the hearing.

*See N.H. CODE ADMIN. RULES*, Site 202.13. Consequently, the Subcommittee denied Ms. Huard's Motion for Site Visit on July 11, 2016.

### **III. APPLICATION**

PSNH is a New Hampshire corporation with a principal place of business in Manchester, New Hampshire. App. at 3-4. It is wholly owned by Eversource Energy. App. 1, at 4, Appx. Y; *see* App. 4, at 5. NEP is a Massachusetts corporation with a principal place of business in Waltham, Massachusetts. App. 1, at 3-4. It is wholly owned by National Grid USA. App. 1, at 4; *see* App. 3, at 3-4. National Grid USA is owned by National Grid North America, Inc. App. 1, Appx. W.

The transmission line is proposed to be constructed in an existing developed transmission line corridor between NEP's Tewksbury 22A Substation in Tewksbury, Massachusetts and PSNH's Scobie Pond 345 kV Substation in Londonderry, New Hampshire. App. 1, at 6; *See* App. 5, at 4. In New Hampshire, the Project will consist of approximately 18 miles of a new 345 kV transmission line (3124 Line): (i) approximately 8.1 miles will be constructed, owned and operated by NEP; and (ii) approximately 9.8 miles will be constructed, owned and operated by PSNH. App. 1, at 6; *See* App. 5, at 4-5. The structures associated with the new NEP 345 kV transmission line will be approximately 40 to 50 feet taller than the nearest existing structures. Tr., 6/13/16, Morning Session, at 28. The Project will also require the relocation of existing

facilities along some sections of the corridor, including the existing 115 kV line (Y-151 Line), in order to accommodate the proposed 3124 Line. App. 1 at 6; *See* App. 5, at 4. The structures that will be constructed to accommodate the relocation will range from approximately 3 feet to 30 feet taller than the nearest existing structures. Tr., 6/13/16, Morning Session, at 29. The Project will traverse the Towns of Pelham, Windham, Hudson and Londonderry. App. 1, at 6.

The Project will consist of four segments, three of which will be located in the State of New Hampshire. App. 1, at 6-9.

### **Segment #1**

Segment #1 will be located entirely in the Commonwealth of Massachusetts. App. 1, at 6; *See* App. 5, at 5.

### **Segment #2 - NEP**

Segment #2 will be owned by NEP and will extend from the Massachusetts border to a location in the Town of Hudson where the Project will transition from NEP to PSNH ownership. App. 1, at 6, 44; *See* App. 5, at 5. The demarcation line between the segment of the line owned by NEP and PSNH will be located between the NEP easement area and the PSNH easement area situated between NEP Structure #150 and PSNH Structure #200 located south of David Drive in Hudson, New Hampshire. *See* App. 5, at 7.

There are two right-of-way configurations associated with this Segment: (I) from Mile 6.5 of the Project to Mile 14.1 of the Project (Part A); and (II) from Mile 14.1 of the Project to Mile 14.6 of the Project (Part B). App. 1, at 44-45. The Part A segment contains three existing overhead transmission lines designated from west to east: (i) 230 kV O-215 Line; (ii) 115 kV Y-151 Line; and (iii) 230 kV N-214 Line. App. 1, at 45. Part B contains existing overhead transmission lines: (i) 230 kV O-215 Line; and (ii) 230 kV N-214 Line. App. 1, at 45. The

Applicant seeks to reconfigure Part A of Segment #2. App. 1, at 45; *See* App. 5, at 5.

Specifically, the Applicant seeks to relocate the existing Y-151 Line to the western side of the existing right-of-way, and to install the new 3124 Line in the right-of-way previously occupied by the Y-151 Line, so that Part A will contain the following overhead transmission lines: (i) 230 kV O-215 Line; (ii) 230 kV N-214 Line; (iii) 115 kV Y-151 Line (as relocated); and (iv) 345kV 3124 Line. App. 1, at 45; *See* App. 5, at 5.

New structures for the Y-151 Line will be erected approximately 28.5 feet east of the western edge of the right-of-way. App. at 45. The existing Y-151 Line will be cut over onto this new alignment and the old structures that supported the Y-151 Line will be removed from the right-of-way. App. at 45. The Y-151 Line will diverge from the main right-of-way at a point north of Bockes Road in Hudson. App. 1, at 45.

The new 3124 Line will be located in the center of the right-of-way approximately 91.5 feet to the east of the existing O-215 Line and approximately 91.5 feet to the west of the existing N-214 Line. App. 1, at 45. In order to support the 3124 Line in Segment #2, 86 new structures will be constructed. App. 1, at 45. The new structures will include the following: (i) narrow base H-Frame suspension structures; (ii) self-supporting narrow based H-Frame deadend structures; (iii) self-supporting three pole deadend structures; and (iv) a self-supporting single pole deadend structure. App. 1, at 45. All structures within Segment #2 of the 3124 Line will be steel structures with a weathering finish. App. 1, at 45. The narrow based H-Frame suspension structures will utilize a direct embedded foundation. App. 1, at 45. The self-supporting narrow based H-Frame deadend, self-supporting three pole deadend structures, and self-supporting single pole deadend structures will be set on reinforced concrete caisson foundations. App. 1, at 45. It may become necessary to use different foundation types. App. 1, at 45. The average

structure height of the 3124 Line in Segment #2, will be approximately 80 feet above grade.

App. 1, at 45. The energized conductors of the new 3124 Line will be twin-bundled 1590 kcmil aluminum conductor, steel reinforced “Falcon” (54/19) conductors. App. 1, at 46. All conductors will have a non-specular or flat finish. App. 1, at 46. Eighteen inch spacers will be utilized in all spans and in the jumper loops. App. 1, at 46. The 3124 Line will be shielded by two static wires in all locations. App. 1, at 46. The static wires on the western side of the new structures will be 3/8" Extra High Strength seven strand steel wire, and the static wire on the eastern side of the structures will be a 48 count optical ground wire (OPGW). App. 1, at 46.

The relocated Y-151 Line will encompass approximately 87 structures with an average height of approximately 75 feet above grade. App. 1, at 46. The majority of structures will consist of a delta davit arm suspension structure and/or delta davit arm deadend structure, featuring single and double insulator assemblies. App. 1, at 46; App. 1, Appx. R; see App. 6, at 9. Other proposed structures on the Y-151 line will include H-Frame deadend structures, H-Frame switch structures, three pole deadend structures, single pole deadends and single pole switch structures. App. 1, at 46. Single monopoles will utilize direct embedded foundations while the remainder of the 115 kV structure types will be set on reinforced concrete caisson foundations. App. 1, at 46. The use of alternative foundations may be required. App. 1, at 46. Currently existing 4/0 copper conductors will be upgraded to single 795 kcmil ACSS “Drake” (26/7) HS285 conductors. App. 1, at 46. All conductors installed on the Y-151 Line will have a non-specular finish. App. 1, at 46. The line will be shielded by a single static wire that will be a 144 count OPGW. App. 1, at 46-47.

## The PSNH Segments

A steel pole H-Frame construction with a self-wearing finish will be utilized at Segments #3 and #4. App. 1, at 47. The tangent structures will be two-pole direct embed H-Frame structures. App. 1, at 47. Angle and deadend structures will primarily be three-pole direct embed structures with structural guying similar to the existing wood H-Frame three pole structures. App. 1, at 47; Appx. R. However, a two-pole H-Frame deadend structure near Mammoth Road (Structure 264) and a monopole deadend transposition structure near Scobie Pond 345 kV Substation (Structure 287) will be self-supported structures with reinforced concrete caisson foundations. App. 1, at 47.

All direct embed foundations of the steel poles will be placed within corrugated steel culverts, then backfilled with select backfill and compacted in lifts. App. 1, at 47. The pull-off and deadend structures will require the addition of structural guying to maintain structure stability. App. 1, at 47. Log anchors will be utilized in upland locations and screw anchors will be utilized in environmentally sensitive areas. App. 1, at 47. The use of grouted rock anchors at some locations may be required. App. 1, at 47. Alternative foundation types, *i.e.* concrete caisson and helical/battered pile foundations, may also be used. App. 1, at 47.

Twin bundled 1590 kcmil ACSR “Falcon” (54/19) conductors will be used for the 3124 Line. App. 1, at 47. Eighteen (18) inch spacers will be used in all spans and in the jumper loops to keep each of the conductors apart. App. 1, at 47. The 3124 Line will be shielded by two OPGW static wires in all locations. App. 1, at 47. Both static wires will be 48 count OPGW. App. 1, at 47. For the last span into the Scobie Pond 345 kV Substation, both static wires will be 19#10 Alumoweld. App. 1, at 47. The Alumoweld wire may be upgraded to 19#6 Alumoweld. App. 1, at 47-48.

### **Segment #3**

Segment #3 will extend from Mile 14.6 of the Project (Hudson, New Hampshire) to Mile 18.5, of the Project to where the new 3124 Line will depart to a north-south corridor running parallel to NEP's right-of-way and turn northerly towards the Scobie Pond 345 kV Substation in Londonderry, New Hampshire. App. 1, at 48. It will consist of approximately 3.9 miles. App. 1, at 48. Currently, this Segment contains the 345 kV 326 Line, which is located 31.5 feet from the western edge of a 216.5-foot wide right-of-way. App. 1, at 48. The 3124 Line will be installed approximately 100 feet to the east of the existing 326 Line and approximately 85 feet from the eastern<sup>1</sup> edge of the existing right-of-way. App. 1, at 48. Approximately 90 feet of vegetation clearing within the unoccupied eastern edge of the right-of-way will be required to construct the new 3124 Line. App. 1, at 48; Tr., 06/13/16, Morning Session, at 21-22.

Segment #3 will encompass 37 structures consisting of the following: (1) H-Frame suspension structures; (2) guyed three pole suspension pull-off structures; and (3) guyed three pole dead-end structures. App. 1, at 48; App. 1, Appx. R. There is one cross-section associated with Segment #3. App. 1, at 48; App. 20, at 48.

### **Segment #4**

Segment #4 will begin from the point that the PSNH right-of-way diverges from running parallel with the NEP right-of-way and continues east to the Scobie Pond 345 kV Substation for approximately 5.9 miles. App. 1, at 48. The new 3124 Line will be installed in the center of the existing right-of-way. App. 1, at 49. Approximately 50 feet of vegetation will have to be cleared from the center of the right-of-way so that the Line can be constructed. App. 1, at 49; Tr., 06/13/16, Morning Session, at 21-23. The right-of-way already contains overhead distribution circuits and the following overhead transmission lines: (1) 345 kV 380 Line; (2) 345 kV 326

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<sup>1</sup> It is noted that the Application erroneously references the western edge of the existing right-of-way.

Line; (3) 115 kV Z119 Line; and (4) 115 kV X116 Line. App. 1, at 49. Reconfiguration of the existing transmission and distribution lines will not be required in this segment. App. 1, at 49.

Segment #4 will include 52 structures of the following five general types: (1) H-Frame suspension and dead-end structures; (2) guyed three pole suspension pull-off structures; (3) guyed three pole dead-end structures; (4) a two-pole dead-end structure; and (5) a monopole dead-end transposition structure. App. 1, at 49.

There will be eleven cross sections within Segment #4:

- A. Mile 18.5 to Mile 20.4 and Mile 20.4 to Mile 20.5 – The right-of-way width is approximately 460 feet. App. 1, at 49. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission lines (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; (3) 345 kV 3124 line; (4) 115 kV Z119 line; and (5) 115 kV X116 line. App. 1, at 49. The new 3124 line will be located along a centerline alignment that does not contain any existing facilities – approximately 100 feet to the east of the existing 326 line and approximately 87.5 feet to the west of the existing Z119 line. App. 1, at 49. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 49.
- B. Mile 20.5 to Mile 20.6 and Mile 20.6 to Mile 21.6 – The right-of-way width is approximately 635 feet. App. 1, at 49. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission lines (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; (3) 345 kV 3124 line; (4) 115 kV S188 line; (5) 115 kV X116 line; and (6) 115 kV Z119 line. App. 1, at 49. The new 3124 line will be located 100 feet to the east of the existing 326 line and approximately 70 feet to the west of the existing S188 line. App. 1, at 49. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 49-50.
- C. Mile 21.6 to Mile 21.7 – The right-of-way width is approximately 635 feet. App. 1, at 50. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission and distribution lines (from west to east): (1) 34.5 kV 3184 line; (2) 345 kV 380 line; (3) 345 kV 326 line; (4) 345 kV 3124 line; (5) 115 kV R187 line; (6) 115 kV X116 line; (7) 115 kV Z119; (8) 34.5 kV 365 line; and (9) 3128X distribution line. App. 1, at 50. The new 3124 line will be located approximately 100 feet to the east of the existing 326 line and approximately 70 feet to the west of the existing R187 line. App. 1, at 50. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 50.

- D. Mile 21.7 to Mile 23 – The right-of-way width is approximately 535 feet. App. 1, at 50. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission and distribution lines (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; (3) 345 kV 3124 line; (4) 115 kV R187 line; (5) 115 kV X116 line; (6) 115 kV Z119; and (7) 34.5 kV 365 line. App. 1, at 50. The new 3124 line will be located approximately 100 feet to the east of the existing 326 line and approximately 70 feet to the west of the existing R187 line. App. 1, at 50. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 50.
- E. Mile 23.0 to Mile 23.8 – The right-of-way width is approximately 535 feet. App. 1, at 50. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission lines (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; (3) 345 kV 3124 line; (4) 115 kV R187 line; (5) 115 kV X116 line; and (6) 115 kV Z119. App. 1, at 50. The new 3124 line will be located 100 feet to the east of the existing 326 line and approximately 70 feet to the west of the existing R187 line. App. 1, at 50. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 50.
- F. Mile 23.8 to Mile 24.1 – The right-of-way width is approximately 535 feet. App. 1, at 51. After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission lines and distribution circuits supported by a double circuit structure (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; (3) 345 kV 3124 line; (4) 115 kV R187 line; (5) 115 kV X116 line; (6) 115 kV Z119; (7) double circuit 32W4; and (8) 32W3 distribution lines. App. 1, at 51. The new 3124 line will be located 100 feet to the east of the existing 326 line and approximately 70 feet to the west of the existing R187 line. App. 1, at 51. Approximately 50 feet of vegetation will have to be removed to accommodate construction of the new 3124 line in this sector. App. 1, at 51.
- G. Mile 24.1 to the Scobie Pond 345 kV Substation - After construction of the new 345 kV 3124 line, the right-of-way will consist of the following transmission lines (from west to east): (1) 345 kV 380 line; (2) 345 kV 326 line; and (3) 345 kV 3124 line. App. 1, at 51. The new 3124 line will be located east of the existing 326 line. App. 1, at 51. Removal of vegetation will be required to accommodate construction of the new 3124 line in this sector. App. 1, at 51.

A new 345 kV transmission line terminal will be constructed at the Scobie Pond 345 kV Substation. App. 1, at 51. The new terminal addition will consist of a one line terminal structure, two circuit breakers, five manual and one motor operated disconnect switches, three surge

arrestors, and three coupling CCVTs. App. 1, at 51. No yard expansion or fence modifications will be required. App. 1, at 51.

### **Marshalling Yards, Laydown Areas and Access Ways**

The construction of the Project will require development of marshalling yards and laydown areas. *See* App. 5, at 10-11. Marshalling yards will be used for storage of the equipment that will be delivered to the laydown areas. *See* App. 5, at 10. The Applicant asserts that marshalling yards will be approximately between three and five acres. *See* App. 5, at 10. The Applicant states that marshalling yards have not been selected and are not identified at this time. *See* App. 5, at 10. The Applicant further asserts that “marshalling yards are generally established in previously disturbed industrial areas with existing access, a gravel or stone surface, and do not require tree clearing or any impacts to wetlands or other resource areas.” *See* App. 5, at 11.

Laydown areas are sites within the Project’s right-of-way that will be used for short term storage of material and equipment during construction. *See* App. 5, at 11. According to the Applicant, all laydown areas within the corridor will be at mapped areas identified as laydown areas on the Project plans. *See* App. 5, at 11.

Finally, in order to construct and operate the Project, the Applicant will have to construct a number of permanent and temporary access ways. *See* App. 5, at 12. Construction access ways are typically located where the Project’s right-of-way intersects town or state roads. *See* App. 5, at 12. The Applicant identifies anticipated access roads on the Wetland Permitting Plans. *See* App. 1, Appx. F; App. 5, at 12. The Applicant warns that construction of some additional construction access roads may be required and requests that the Subcommittee delegate authority to approve construction of additional access ways to the New Hampshire Department of Environmental Services. *See* App. 5, at 12.

## **IV. POSITIONS OF THE PARTIES**

### **A. Applicant**

As a part of its Application, the Applicant submitted the pre-filed testimony of the following individuals:

- Robert D. Andrew, Director, System Planning of Eversource Energy Service Company<sup>2</sup>, and John W. Martin, Consulting Engineer in the Transmission Planning Department of the National Grid USA Service Company, Inc., d/b/a National Grid (App. 2);
- Brian McNeill, Vice President and Chief Financial Officer for New England Power Company (App. 3);
- Emilie G. O’Neil, Director of Corporate Finance and Cash Management for Eversource Energy Service Company, and James Vancho, Manager for Investment Analysis and Business Development for Eversource Energy Company<sup>3</sup> (App. 4);
- Brian Hudock, Lead Project Manager for NEP and David L. Plante, Lead Project Manager for Transmission Projects for PSNH (original and supplemental pre-filed testimony) (App. 5);
- Jessica T. Farrell, P.E., Lead Engineer in the Transmission Engineering Department of NEP and Garrett E. Luszczki, E.I., Transmission Line Engineer of TRC Solutions (App. 6);
- Mark D. Suennen, P.E., P.T.O.E., Project Manager and Senior Traffic Engineer for Vanasse Hangen Brustein, Inc. (VHB) (App. 7);
- John D. Hecklau, Principal of Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (App. 8);
- Sherrie L. Trefry, C.S.S., Director of Energy Services of VHB (original and supplemental pre-filed testimony) (App. 9);
- Darrell Oakley, Senior Ecologist of VHB (App. 10);
- Stephen A. Olausen, Executive Director and Senior Architectural Historian of The Public Archaeology Laboratory, Inc. (App. 11);

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<sup>2</sup> Mr. Andrew adopted pre-filed testimony that was originally submitted as the pre-filed testimony of Bradley P. Bentley, Director Transmission System Planning of Eversource Energy Service Company. *See Supplemental Production*, May 19, 2016.

<sup>3</sup> Ms. O’Neil and Mr. Vancho adopted pre-filed testimony that was originally filed as the pre-filed testimony of Michael J. Ausere, Vice President of Energy Planning & Economics of Eversource Energy Service Company.

- Dianna L. Doucette, Senior Archaeologist of The Public Archaeology Laboratory, Inc. (App. 12);
- William H. Bailey, Ph.D., Principal Scientist in the Center for Exposure Assessment in Exponent, Inc.'s Health Sciences Practice (App. 13);
- Gary B. Johnson, Ph.D., Senior Managing Scientist in the Electrical Engineering and Computer Science Practice of Exponent, Inc. (App. 14);
- Robert W. Varney, Executive Vice President, Normandeau Associates, Inc. (App. 15);
- Alfred P. Morrissey, Corporate Economist in National Grid's Analytics, Modeling and Forecasting Department (original and supplemental pre-filed testimony) (App. 16);
- Lisa K. Shapiro, Ph.D., Chief Economist, Gallagher, Callahan & Cartrell, P.C. (App. 17); and
- James Chalmers, Ph.D., Principal, Chalmers & Associates, LLC (App. 18).

The Applicant claims that the information contained in its Application, pre-filed testimony, and exhibits clearly demonstrates that the Applicant has the financial, managerial and technical capacity to construct, manage, and operate the Project in accordance with the conditions of the Certificate. App. 1, at 58-60. In addition, the Applicant asserts that the Project will not unduly interfere with the orderly development of the region and will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, or public health and safety. App. 1, at 62-95. The Applicant further asserts that ISO-NE has determined that the Project is a necessary reliability project in the region and, therefore, is required and is in public interest. App. 1, at 62-95. The Applicant requests that the Subcommittee grant the Application and issue a Certificate. App. 1, at 62-95.

## **B. Counsel for the Public**

Counsel for the Public and the Applicant filed Stipulated Facts and Requested Findings (Stipulation) with the Subcommittee on May 20, 2016. App. 23. The Stipulation addresses the statutory factors that the Subcommittee must consider. Counsel for the Public agrees that the Project is a reliability project selected by the Independent System Operator of New England to address identified transmission capacity needs for the continued reliability of the regional electric transmission system in southern New Hampshire and northeastern Massachusetts. *See* App. 23, ¶2. Counsel for the Public further acknowledges that the Applicant has experience in securing funding and financing in the construction, operation, and maintenance of similar transmission line projects. *See* App. 23, ¶6. Counsel for the Public agrees that the Applicant and its contractors “have provided evidence that they have experience in designing, constructing, operating, and maintaining similar transmission facilities throughout the Northeast Region of the United States.” *See* App. 23, ¶9.

By way of the Stipulation, Counsel for the Public agrees that the Applicant provided a Visual Impact Assessment (VIA) to the Subcommittee. *See* App. 23, ¶11. Counsel for the Public acknowledges that the VIA concludes “because of its location within an existing transmission corridor, the Project will have minimal impact on the scenic quality a viewer would expect when viewing the landscape.” *See* App. 23, ¶16.

Counsel for the Public stipulates that the New Hampshire Department of Historic Resources (DHR) reached the following conclusions: (i) in a letter dated March 4, 2016, DHR determined that the Project will have no effect on historic resources; and (ii) in a letter dated December 9, 2015, DHR concluded that there are no known properties of archeological

significance within the area of the Project's potential impact and, therefore, no additional Phase I-B surveys were needed. *See* App. 23, ¶¶20-21.

Counsel for the Public acknowledges that the Applicant filed the appropriate applications for permits with the appropriate agencies and agreed to implement measures to mitigate potential water quality impacts, to adhere to best management practices prior to commencing construction of the Project, to use an environmental monitor to oversee the construction of the Project, and to restore any disturbed soils to a stabilized condition to prevent permanent erosion impacts. *See* App. 23, ¶¶ 22-28.

As to the impact of the Project on air quality, Counsel for the Public agrees that the "Project does not involve the installation of any equipment that combust fuels or emits any regulated pollutants." *See* App. 23, ¶30.

Counsel for the Public further acknowledges a letter from the New Hampshire Fish and Game Department (NHFG) dated February 11, 2016, and agrees that it states that the NHFG approved the protocols for the New England Cottontail and Black Racers as adequate for the Project, and states that NHFG will work with the Applicant to avoid, minimize, and mitigate impacts to any identified rare, threatened, or endangered species. *See* App. 23, ¶29.

Counsel for the Public agrees that construction of the Project will have a minimal and temporary impact on the traveling public and that the traffic impacts will be limited to locations where the transmission line will cross public roadways and at points of access to the right-of-way. *See* App. 23, ¶36. Counsel for the Public also stipulated that relocation of lines and cables across public roads will not interfere with the safe, free, and convenient use for public travel on local and state roads and highways. *See* App. 23, ¶36-37. Counsel for the Public acknowledges the following commitments from the Applicant:

- Agreement to implement safety measures, including traffic officers and flaggers, to mitigate any temporary traffic impacts;
- Commitment to construct the Project in accordance with the New Hampshire Department of Transportation Utility Accommodation Manual;
- Assurance that all traffic controls will be conducted in accordance with DOT policies, including the 2009 edition of the Manual on Uniform Traffic Control Devices;
- Assurance that installation of the proposed transmission lines along, over, and across locally-maintained highways will not interfere with the safe, free, and convenient use for public travel of locally-maintained highways; and
- Commitment to require construction contractors and field personnel to be trained in Safety/Occupational Safety and Health Administration, Basic First Aid/cardio-pulmonary resuscitation, Environmental Compliance and other relevant topics and project specific training.

*See App. 23, ¶36-42.*

Counsel for the Public also acknowledges a report filed by the Applicant's consultant, Exponent, entitled "Eversource/National Grid Merrimack Valley Reliability Project Electric Field, Magnetic Field, Audible Noise, and Radio Noise Modeling in New Hampshire, June 16, 2015." *See App. 23, ¶35; App. 1, Appx. AG.*

As to the effect on the orderly development of the region, Counsel for the Public agrees that: (i) utilizing pre-existing corridors is consistent with the orderly development of the region; (ii) construction and operation of the Project will occur entirely within an existing right-of-way; and (iii) the Project's impacts on local land use during construction of the Project will be temporary. *See App. 23, ¶43-45.* Counsel for the Public also notes the REMI analysis and its findings. *See App. 23, ¶49-50.*

In addressing the impact of the Project on the public interest, Counsel for the Public acknowledges that ISO-NE has determined that the Project is a necessary reliability project in the region. *See App. 23, ¶52.*

### **C. Ms. Margaret Huard**

Margaret Huard was granted intervenor status in this proceeding. With the exception of her own lay testimony, she did not present testimony from an expert. Ms. Huard opposes the Application in its entirety.

Ms. Huard resides near the right-of-way where one of the additional lines associated with the Project will be installed. *See Huard 52, at 1,3.*<sup>4</sup> Ms. Huard claims that the Project will have an unreasonable adverse effect on the natural environment, the aesthetics of the region, the value of her home, and public health and safety. *See Huard 52, at 1,3.*

To support her claim that the Project will have an unreasonable adverse effect on the natural environment, Ms. Huard argues that noise associated with construction of the Project will have an unreasonable effect on wild animal health and may scare them from their area of habitat. *See Huard 52, at 2.* Ms. Huard further asserts that the Applicant seeks to remove a large amount of natural forests in Londonderry, New Hampshire. *See Huard 52, at 2.* She argues that it will change the natural environment and will cause wild animals to permanently migrate into other areas and, potentially, will cause an overpopulation in other areas. *See Huard 52, at 2.* Ms. Huard argues that the “removal of this large amount of mature forest in and around wetlands and waterbodies may increase and disperse water levels, causing a disturbance to dry land” and erosion. *See Huard 52, at 2-3.*

Ms. Huard also argues that the Project will have an unreasonable adverse effect on water and air quality. Ms. Huard submits that the self-weathering steel that the Applicant seeks to utilize will rust and, as a result, will emit “patina” into the water and air, causing significant contamination of the water and air in the region. *See Huard 52, at 6-7.* Ms. Huard further argues that air quality will be adversely impacted as a result of tree removal associated with the Project.

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<sup>4</sup> Ms. Huard’s exhibits \_\_\_\_ Huard \_\_\_\_.

*See Huard* 52, at 7. Ms. Huard asserts that construction of the Project will have a significant negative effect on water quality because the Applicant seeks to cross a number of wetlands and surface waters and will remove a number of trees. *See Huard* 52, at 8. Ms. Huard argues that the removal of trees may cause overflow of wetlands and surface waters. *See Huard* 52, at 8.

Ms. Huard also argues that the Project “will have a gross and unreasonable effect on the aesthetics of a greater amount of people than the Applicants’ experts have considered and concluded.” *See Huard* 52, at 4. Ms. Huard claims that up to three additional structures that the Applicant seeks to construct will be visible from her property. *See Huard* 52, at 4. In addition, she argues that construction of the Project and the associated tree clearing will cause the Project to be visible from a variety of locations, *i.e.* David Drive and other areas where Ms. Huard commutes to and walks. *See Huard* 52, at 4. She concludes that her ability to sell her house in the future will be impaired as a result of the Project’s effect on aesthetics in the region. *See Huard* 52, at 10.

Ms. Huard also argues that the Project will have an unreasonable adverse effect on health and safety. *See Huard* 52, at 4-5. Ms. Huard claims that a number of people have already died because of the close proximity of the existing transmission lines and that she, herself, suffered adverse health issues while in close proximity to the lines, namely: (i) a “small shock” in 2009/2010; (ii) “significant pain and sensitivity from head to toe” after the removal of a pole within the right-of-way in 2012/2013; and (iii) “symptoms that often precede cardiac arrest” when she was taking pictures of existing structures in January, 2016. *See Ms. Huard, Pre-Filed Testimony, Amended Page 5.*

Ms. Huard acknowledges that the Applicant has a strong financial position. *See Huard* 52, at 8-9. She argues, however, that it may change in the future. *See Huard* 52, at 8-9. She also

asserts that the Applicant itself, without relying on its experts and contractors, does not have the technical and managerial capacity to construct and operate the Project in compliance with the Certificate. *See* Huard 52, at 11.

Ms. Huard asserts that she is not “convinced that MVRP has been proposed out of the need for the stability and reliability of the grid.” *See* Huard 52, at 11.

## **V. DELIBERATIONS & ANALYSIS**

### **A. The Subcommittee Deliberation Process**

The Subcommittee deliberated on June 14 and July 11, 2016. The Subcommittee followed the contours of RSA 162-H:16, to define its deliberations. First, the Subcommittee reviewed the status of the state permits. The Subcommittee then considered the statutory factors outlined in RSA 162-H:16. The deliberative process used by the Subcommittee was to engage in a general discussion of each subject area. At the conclusion of each discussion, the Presiding Officer would seek to obtain a sense of the Subcommittee’s position with respect to that subject area. This section of the Decision and Order summarizes the deliberative process and analysis employed by the Subcommittee.

### **B. State Agency Permits and Reports**

To commence its deliberations, the Subcommittee first reviewed the status of the state permits and agency reports.

#### **1. Wetlands Permit – Department of Environmental Services**

The Applicant filed a Wetland Permit Application as part of its Application with the Committee. *See* App. 1, Appx. F. The Wetland Permit Application identifies the following permanent and temporary wetland impacts at the following locations:

- Town of Pelham:
  - Permanent impact - 3,750 square feet, including impact on: (i) 2,016 square feet of scrub-shrub wetlands; (ii) 1,106 square feet of emergent wetlands; and (iii) 628 square feet of prime wetlands; and
  - Temporary impact - 160,426 square feet.
- Town of Windham:
  - Permanent impact – 250 square feet impact on scrub-shrub wetlands; and
  - Temporary impact – 7,027 square feet.
- Town of Hudson:
  - Permanent impact – 125 square feet, including impact on: (i) 112 square feet of forested wetland; and (ii) 13 square feet of scrub-shrub wetland; and
  - Temporary impact – 35,827 square feet.
- Town of Londonderry:
  - Permanent impact – 383 square feet, including impact on: (i) 13 square feet of forested wetland; (ii) 132 square feet of scrub-shrub wetland; (iii) 158 square feet of emergent wetlands; and (iv) 80 square feet of bank-intermittent stream (bed impact); and
  - Temporary impact – 190,980 square feet.

*See App. 1, Appx. F, Wetland Permit Application Forms; App. 20, Appx. F-1.*

On June 9, 2016, the Department of Environmental Services (DES) issued a final decision, and recommended granting of the Certificate, subject to certain conditions and mitigation measures.

DES determined that the Project is considered a Major Project pursuant to NH Admin. Rule, Env-Wt 303.02(c), as the total wetland impacts (permanent and temporary) will be greater than 20,000 square feet. DES identified and requested the following compensatory mitigation measures: (i) a one-time payment of \$12,898.60 into the Aquatic Resource Mitigation Fund by New England Power Company d/b/a National Grid; and (ii) a one-time payment of \$633,976.80 into the Aquatic Resource Mitigation Fund by Public Service of New Hampshire d/b/a Eversource. Furthermore, as mitigation and as an addition to the abutting Peabody Town Forest in the Town of Pelham, DES requested that NEP conserve and transfer in fee to the Town of

Pelham, 5.53 acres of land comprising part of a parcel owned by NEP (Tax Map 30, Lot 7-11, within 120 days of the issuance of a Decision by the Subcommittee.

DES also imposed, among others, the following project-specific conditions:

- All work shall be in accordance with plans dated 5/29/2015 and 7/6/2015, as received by DES on August 14, 2015.
- A New Hampshire Certified Wetland Scientist or similarly qualified professional shall monitor the Project during construction to assure it is constructed in accordance with the approved plans and narratives and to assure no water quality violations occur. A follow-up report shall be submitted to the Wetlands Bureau within 60 days of the completion of construction and after one full growing season.
- The Applicant shall notify and coordinate with the New Hampshire Natural Heritage Bureau (NHB) and the New Hampshire Fish & Game Department (NHF&G), to the satisfaction of the agencies, of encounters with any rare, threatened or endangered species during the Project. Contractors shall avoid moving or disturbing any of the species.
- A follow-up report shall be submitted to NHB and NHF&G within 60 days of the completion of construction if rare, threatened, or endangered species are found within the Project area.
- A New Hampshire Certified Wetland Scientist or similarly qualified professional shall walk the areas of proposed activity and the wetland impact areas, in particular, prior to ground disturbance each day to check swamp mats for basking turtles and snakes. Animals shall be safely relocated if found.
- Appropriate siltation/erosion/turbidity controls shall be in place prior to construction, shall be maintained during construction, and shall remain in place until the area is stabilized. Silt fence(s) must be removed once the area is stabilized.
- All temporary wetland and stream bank impact areas shall have at least 75% successful establishment of wetlands vegetation (or where applicable appropriate stream bank vegetation) after one full growing season, or it shall be replanted and re-established in a manner satisfactory to the DES Wetland Bureau.
- Extreme precautions shall be taken within riparian areas to prevent unnecessary removal of vegetation during construction.
- The proposed temporary stream crossings shall span the natural stream channel and not impede stream flows.

- Within three days of final grading or temporary suspension of work, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching rack or netting and pinning on slopes steeper than 3:1.
- The draft deed of the parcel to be conveyed to the Town of Pelham shall be provided to DES for review and approval.
- Following permit issuance and prior to recording of the conservation deed, the natural resources existing on the 5.53 acre parcel shall not be removed, disturbed, or altered without prior written approval of DES.
- The conservation deed to be placed on the preservation area shall be written to run with the land, and both existing and future property owners shall be subject to the terms of the restrictions.
- The plan noting the conservation area with a copy of the final deed language shall be recorded with the Registry of Deeds Office for each appropriate lot. A copy of the recording from the County Registry of Deeds Office shall be submitted to the DES Wetlands Bureau within 14 days of the recording.
- A final baseline documentation report shall be prepared that summarizes existing conditions within the conservation area. Said report shall contain photographic documentation of the easement area, and shall be submitted to DES and the Town of Pelham to serve as a baseline for future monitoring of the area.
- The conservation area shall be surveyed by a licensed surveyor and marked by monuments (stakes). The DES Wetlands Bureau shall be notified of the placement of the parcel boundary monuments to coordinate on-site review of their location.

Pursuant to RSA 162-H:16, I, the Certificate in this docket will be conditioned upon the Applicant's compliance with the conditions, limitations, and mitigation measures identified within the Wetlands Permit. The Wetlands Permit is incorporated into the Certificate in this docket. Pursuant to RSA 162-H:4, III, the Subcommittee delegates its authority to monitor the construction and operation of the Project, to ensure that terms and conditions of the Wetlands Permit and the Certificate are met, to the Department of Environmental Services. Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to the Department of Environmental Services, Water Division the authority to specify the use of any technique, methodology, practice or

procedure approved by the Subcommittee within the Certificate, as may be necessary to effectuate conditions of the Certificate and Wetland Permit. However, any action to enforce the provisions of the Certificate must be brought before the Site Evaluation Committee. *See RSA 162-H:4, I(d).*

## **2. Shoreland Impact Permit – Department of Environmental Services**

The Applicant filed an Application for a Shoreland Permit with the DES Water Division. App. 1, at 24; App. 1, Appx. G. The Application for a Shoreland Permit indicates that construction of the Project will result in total of approximately 105 square feet of permanent shoreland impact. App. 1, Appx. G, at 2. It further indicates that the use of construction work pads and pull pads centered on each structure during installation will cause a total of approximately 35,107 square feet of temporary shoreland impact. App. 1, Appx. G, at 2.

On October 1, 2015, the DES Water Division issued a Shoreland Impact Permit authorizing 35,212 square feet of shoreland impact. *See correspondence from DES (October 1, 2015).* The Shoreland Permit is conditioned upon number of general conditions that are applicable to any applicant seeking a Permit, and the following conditions applicable to the Applicant specifically:

- All work should be in accordance with VHB plans dated May 29, 2015 and received by DES on September 3, 2015.
- All activities conducted in association with the completion of this project shall be conducted in a manner that complies with applicable criteria of N.H. ADMIN. RULES, Chapter, Env-Wq 1400 and RSA 483-B during and after construction.
- Erosion and siltation measures shall be installed prior to the start of work, shall be maintained throughout the Project, and remain in place until all disturbed surfaces are stabilized.

- Erosion and siltation controls shall be appropriate to the size and nature of the Project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.
- No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env Wq 1700.
- Any fill used shall be clean sand, gravel, rock, or other suitable material.
- The individual responsible for completion of the work shall utilize techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).

*See Correspondence from DES (October 1, 2015).*

The Certificate in this docket will be conditioned upon the Applicant's compliance with the conditions and limitations identified within the Shoreland Impact Permit. The Shoreland Impact Permit is incorporated into the Certificate in this docket. Pursuant to RSA 162-H:4, III, the Subcommittee delegates its authority to monitor the construction and operation of the Project, to ensure that terms and conditions of the Shoreland Impact Permit and Certificate are met, to the Department of Environmental Services, Water Division. Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to the New Hampshire Department of Environmental Services, Water Division the authority to specify the use of any technique, methodology, practice, or procedure approved by the Subcommittee within the Certificate as may be necessary to effectuate conditions of the Certificate and Shoreland Permit. However, any action to enforce the provision of the Certificate must be brought before the Site Evaluation Committee. *See RSA 162-H:4, I(d).*

### **3. Alteration of Terrain Permit – Department of Environmental Services** **Section 401 Water Quality Certificate**

An Alteration of Terrain Permit Application was filed with the DES Alteration of Terrain Bureau on July 13, 2015. *See* App. 1, Appx. O. The Alteration of Terrain Permit Application identifies Tony's Brook, Golden Brook, Beaver Brook, Lower Beaver Brook, Robinson Pond, Howard Brook, Chase Brook, Nesenkeag Brook, and three other unnamed perennial streams as receiving waters. *See* App. 1, Appx. O, at 2. The Alteration of Terrain Permit Application further states that the Project will cause approximately 8,090,471 square feet of total disturbance and 8,175 square feet of impervious cover as a result of the installment of 456 pole structures. *See* App. 1, Appx. O, at 2.

On June 9, 2016, DES issued a final decision on the Applicant's Alteration of Terrain Application. DES identified, among others, the following project-specific conditions:

- DES must be notified in writing prior to the start of construction and upon completion of construction of the Project.
- Revised plans shall be submitted for an amendment approval prior to any changes in construction details or sequences. DES must be notified in writing within ten days of a change in ownership.
- All activities shall comply with the plans and information provided with the Alteration of Terrain Application submitted as part of the Application to the Committee on August 5, 2015; Supplement 2 of the Application dated December 23, 2015; and the Applicant's response to DES dated April 4, 2016. Any proposed modifications which may affect surface water quality shall receive DES approval prior to implementation.
- The Applicant shall identify to DES all marshalling yards, laydown areas, and off-right-of-way access ways not currently identified for review prior to their construction.
- The Applicant shall comply with requirements of the EPA NPDES Construction General Permit (CGP) including, but not limited to, preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and inspection, maintenance and reporting of construction activity. A copy of the SWPPP and/or construction

inspection and maintenance logs shall be provided to DES within seven days (or other timeframe acceptable to DES) of receiving a request from DES.

- Removal of vegetation within 50 feet of all surface waters (including wetlands) shall be minimized to the maximum extent practicable to reduce the potential for erosion and deposition of material into the surface waters, to protect rare, threatened and endangered species and habitats and to minimize the potential for increases in water temperature that could be harmful to aquatic life. Limits of clearing should be clearly marked in the field prior to construction to prevent inadvertent excursion of clearing beyond what is necessary.
- The Applicant shall employ the services of an environmental monitor (“Monitor”). The Monitor shall be a Certified Professional in Erosion and Sediment Control or a Professional Engineer licensed in the State of New Hampshire and shall be employed to inspect the site from the start of alteration of terrain activities until the alteration of terrain activities are completed and the site is considered stable.
- During this period, the Monitor shall inspect the subject site at least once a week, and if possible, during any  $\frac{1}{2}$  inch or greater rain event (*i.e.*  $\frac{1}{2}$  inch of precipitation or more within a 24 hour period). If unable to be present during such a storm, the Monitor shall inspect the site within 24-hours of this event.
- The inspections shall be for the purposes of determining compliance with the permit. The Monitor shall submit a written report to DES within 24-hours of the inspections. The reports shall describe, at a minimum, whether the Project is being constructed in accordance with the approved sequence, shall identify any deviation from the conditions of the permit and the approved plans, and identify any other noted deficiencies.
- The Monitor shall provide technical assistance and recommendations to the Contractor on the appropriate Best Management Practices for Erosion and Sediment Controls required to meet the requirements of RSA 485-A:17, and all applicable DES permit conditions.
- Within 24-hours of each inspection, the Monitor shall submit a report to DES via email.
- Unless otherwise authorized by DES, the Applicant shall keep a sufficient quantity of erosion control supplies on the site at all times during construction to facilitate an expeditious (*i.e.*, within 24-hour) response to any construction related erosion issues on the site.

Construction of the Project involves the discharge of dredge or fill material into surface waters of the United States and, therefore, requires a Federal Clean Water Act Section 404 (33

U.S.C. §1344) permit from the United States Army Corps of Engineers. Under 33 U.S.C. §1341 (Section 401 of the Clean Water Act) and RSA 458-A:12, III, construction of the Project requires a Section 401 Water Quality Certification from DES. A Water Quality Certification Application was filed with DES Water Division on June 29, 2015. *See* App. 1, Appx. H. On June 9, 2016, DES issued a Section 401 Water Quality Certification-Final Conditions. DES stated that the United States Army Corps of Engineers indicated that the Section 404 General Permit (the New Hampshire Programmatic General Permit) applies to the Project. A 401 Water Quality Certification WQC #2012-404P-002 for the current Programmatic General Permit was issued by DES on August 2, 2012. The Water Quality Certification is applicable to any activities covered by the Programmatic General Permit. DES advised the Subcommittee that, since the Project is covered by the Programmatic General Permit, it has to comply with the requirements of the Water Quality Certification. DES further advised the Subcommittee that it has determined that compliance with a Section 401 Water Quality Certification (WQC # 2012-404P-002) for the current Programmatic General Permit and the conditions of the Alteration of Terrain and Wetlands Permits “provides reasonable assurance that construction and operation of the [Project] will not violate surface water quality standards.” *See* Correspondence from DES June 9, 2016), at 2.

The Certificate of Site and Facility will be conditioned upon the Applicant’s compliance with the conditions and limitations identified by: (i) the Alteration of Terrain Permit; (ii) the Section 404 General Permit (the New Hampshire Programmatic General Permit); and (iii) a Section 401 Water Quality Certification (WQC # 2012-404P-002). The Alteration of Terrain Permit and the Water Quality Certificate, including all of the enumerated conditions and limitations, as well as the general programmatic conditions, are incorporated into the Certificate

in this docket. Pursuant to RSA 162-H:4, III, the Subcommittee delegates its authority to monitor the construction and operation of the Project to ensure compliance with the Certificate, Alteration of Terrain Permit, the Section 401 Water Quality Certification and the Section 404 General Permit to the Department of Environmental Services, Water Division. Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to the Department of Environmental Services, Water Division, the authority to specify the use of any technique, methodology, practice, or procedure approved by the Subcommittee within the Certificate, as may be necessary, to effectuate the Certificate, the Alteration of Terrain Permit, the Section 401 Water Quality Certification and the Section 404 General Permit. However, any action to enforce the provision of the Certificate must be brought before the Site Evaluation Committee. *See* RSA 162-H:4, I(d).

**4. Historical Resources – Department of Cultural Resources Division of Historical Resources**

The Applicant submitted a Request for Project Review with the New Hampshire Division of Historical Resources (DHR). *See* App. 1, Appx. K, L. The Subcommittee received several reports from DHR along with the Application.

By letter dated September 3, 2015, DHR advised the Subcommittee that the Project will require federal review under Section 106 of the National Historic Preservation Act and that the United States Army Corps of Engineers is the designated lead agency for that review. *See* Correspondence from DHR (Sept. 8, 2015), at 1.

DHR also reported that it had reviewed the Applicant's due diligence findings with respect to above ground architectural resources and that it determined that there is no potential effect to resources listed or eligible to be listed on the National Register of Historic Places. *See* Correspondence from DHR (Sept. 8, 2015), at 2.

On May 9, 2016, the Subcommittee received a final report from DHR stating that: “DHR concluded that the proposed Merrimack Valley Reliability Project, under state and federal regulations, will have no effects on historic resources.” *See Correspondence from DHR* (May 9, 2016). DHR requested that the Applicant provide changes and/or work modifications to DHR: “if there are any changes in approved plans and specifications, or there is a need for additional work.” *See Correspondence from DHR* (May 9, 2016).

In the event that new information or evidence of archeological resources, historic sites or other cultural resources is found in the Project area, the Applicant shall immediately report said findings to DHR and the Committee. In addition, the Applicant shall notify DHR of any change in the construction plans for the Project, and of any new community concerns for any archeological resources, historic sites, or other cultural resources affected by the Project.

Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to DHR its authority to specify the use of any appropriate technique, methodology, practice, or procedure associated with architectural, historical or other cultural resources effected by the Project.

## **5. State Fire Marshal**

In a letter dated August 28, 2015, the Department of Safety, Office of the Fire Marshal, indicated that the Application contained no, “issues relating to the application of the State Fire or Building Code from the Office of the State Fire Marshal.” *See Correspondence from Fire Marshal* (September 2, 2015).

## **6. Department of Transportation**

The Applicant filed the following Permit Applications with the Department of Transportation (DOT):

- Aerial Utility Permit required for Route 111, in the Town of Windham;
- Aerial Utility Permit required for I-93, in the Town of Londonderry;

- Aerial Utility Permit required for the Londonderry Rail-Trial;
- Temporary Driveway Permit on Route 28, in the Town of Londonderry;
- Driveway Permit in the Town of Londonderry.

*See App. 1, Appx. P.*

The Applicant also filed a Railroad Crossing and Temporary Use Agreement for the Londonderry Rail-Trail. *See App. 1, Appx. P.*

On May 31, 2016, the Subcommittee received a final report from DOT. *See Correspondence from DOT (May 31, 2016).* DOT advised the Subcommittee of the following:

The Department . . . has determined that this application requires temporary driveway permits at several locations and an aerial crossing permit of I-93. District 5 has been working with the Applicant and will be issuing those permits upon submission of the signed applications. The Bureau of Rail and Transit has also reviewed the application and a crossing agreement is in process and will be issued for the crossing of the Londonderry segment of the Manchester/Lawrence Recreational Rail Trail.

*See Correspondence from DOT (May 31, 2016).*

Prior to constructing the Project, the Applicant shall obtain any and all required permits and approvals from DOT. The Applicant shall comply with all conditions and requirements of said permits and approvals. Pursuant to RSA 162-H:4, III, the Subcommittee hereby delegates the authority to monitor the construction and operation of the Project to ensure compliance with the Certificate and permits and approvals issued by DOT to DOT. Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to DOT the authority to specify the use of any technique, methodology, practice, or procedure approved by the Subcommittee within the Certificate as may be necessary to effectuate conditions of the Certificate and conditions of the permits and certificates that will be issued by DOT. However, any action to enforce the provision of the Certificate must be brought before the Site Evaluation Committee. See RSA 162-H:4, I(d).

## **7. Public Utilities Commission**

The Applicant filed the following Petitions with the Public Utilities Commission (PUC):

(i) a Petition for License to Construct and Maintain Electric Lines and Shield Wire Over and Across State Waters and State Land in the Town of Windham; and (ii) a Petition for Licenses to Construct and Maintain Electric Lines and Optical Ground Wires Over and Across Public Lands Owned by the State of New Hampshire in the Town of Londonderry. *See App. 1, Appx. Q.*

The PUC granted the Applicant's requests for licenses to construct and maintain the Project over and across public lands owned by the State of New Hampshire: (i) in the Town of Londonderry by Order *Nisi* dated February 11, 2016<sup>5</sup>; and (ii) in the Town of Windham by Order *Nisi* dated June 24, 2016<sup>6</sup>.

Orders *Nisi* issued by the PUC are adopted as a part of the Certificate. The Certificate is conditioned upon the Applicant's compliance with any and all conditions of the licenses granted by the PUC. Pursuant to RSA 162-H:4, III, the Subcommittee hereby delegates its authority to monitor the construction and operation of the Project to ensure compliance with the Certificate and licenses issued by the PUC to the PUC. Pursuant to RSA 162-H:4, III-a, the Subcommittee delegates to the PUC the authority to specify the use of any technique, methodology, practice, or procedure approved in the Orders *Nisi* or in the Certificate as may be necessary to effectuate conditions of the Certificate and conditions of licenses granted by the PUC. However, any action to enforce the provisions of the Certificate must be brought before the Site Evaluation Committee. *See RSA 162-H:4, I(d).*

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<sup>5</sup> Became effective on March 11, 2016.

<sup>6</sup> Became effective on July 24, 2016.

### **C. Alternatives Analysis**

Prior to July 1, 2014, the Committee was required to consider “available alternatives,” in deciding whether the objectives of RSA 162-H would best be served by the issuance of a Certificate. *See RSA 162-H:16, IV (2014).* Consequently, prior to July 1, 2014, when deciding whether to issue a Certificate, the Committee considered the evidence of alternatives presented by the Applicant, as well as any other evidence in the record pertaining to alternative sites. *See Decision, Application of Granite Reliable Power, LLC, 2008-04, at 23 (July 15, 2009).* On July 1, 2014, the legislature amended RSA 162-H:16, IV. The current version of the statute does not require the Subcommittee to consider “available alternatives,” while making a decision on whether to issue a Certificate. *See RSA 162-H:16, IV (2016).* Instead, in deciding whether the objectives of RSA 162-H would be best served by the issuance of a Certificate, the Subcommittee is required to give “due consideration to all relevant information regarding the potential siting or routes of a proposed energy facility, including potential significant impacts and benefits.” RSA 162-H:16, IV (2016).

The Subcommittee duly considered all evidence relevant to the siting of the Project, including the fact that the Project will be constructed and operated within an existing right-of-way and will be constructed for reliability purposes. Considering these factors, the Subcommittee voted to approve the site and route proposed by the Applicant.

### **D. Applicant’s Financial, Technical and Managerial Capability**

During the course of deliberations, the Subcommittee considered the financial, technical and managerial capabilities of the Applicant as required by RSA 162-H:16, IV(a).

## **1. Technical and Managerial Capability**

Under RSA 162-H:16, IV(a), when making a decision whether to issue a Certificate, the Subcommittee is required to determine whether the Applicant has adequate technical and managerial capability to assure construction and operation of the Project in continuing compliance with the terms and conditions of the Certificate. *See RSA 162-H:16, IV(a).*

Similarly, under N.H CODE OF ADMIN. RULES, Site 301.13, when determining whether an Applicant has the technical capability to construct and operate the Project, the Subcommittee is required to consider the following:

- (1) The applicant's experience in designing, constructing, and operating energy facilities similar to the proposed facility; and
- (2) The experience and expertise of any contractors or consultants engaged or to be engaged by the applicant to provide technical support for the construction and operation of the proposed facility, if known at the time.

N.H. CODE ADMIN. RULES, Site 301.13, (b)(1)-(2) (2016).

When determining whether an Applicant has the managerial capability to construct and operate the Project, the Subcommittee is required to consider the following:

- (1) The applicant's experience in managing the construction and operation of energy facilities similar to the proposed facility; and
- (2) The experience and expertise of any contractors or consultants engaged or to be engaged by the applicant to provide managerial support for the construction and operation of the proposed facility, if known at the time.

*Id.* at Site 301.13 (c)(1)-(2).

*a. Positions of the Parties*

*i. Applicant*

The Applicant asserts that NEP has in-house resources and contract labor needed for the installation, operation, maintenance, repair and removal of the Project. App. 1, at 59. According to the Applicant, NEP and its predecessors have owned, operated and maintained transmission facilities in New England for over a hundred years. App. 1, at 59. NEP owns and operates over 2,300 miles of interstate electrical transmission lines in Massachusetts, Vermont and New Hampshire. App. 1, at 59; *see* App. 5, at 28. The Applicant further submits that NEP's parent, National Grid USA, operates one of the largest electric transmission systems in the Northeast. App. 1, at 59. Its subsidiary companies serve approximately 3.4 million electric customers and operate approximately 8,600 miles of transmission facilities situated in upstate New York, Massachusetts, Rhode Island and Vermont. App. 1, at 59. The Applicant asserts that NEP and National Grid USA's successful "track record" of ownership and operation of transmission facilities in New England is indicative of NEP's technical and managerial capability to construct, operate, maintain, and remove the Project in accordance with the Certificate. App. 1, at 59.

The Applicant asserts that PSNH has sufficient technical and managerial capability to construct and operate the Project in compliance with the Certificate. App. 1, at 60. According to the Applicant, PSNH and its predecessor companies have owned, operated and maintained transmission facilities in New Hampshire for over a hundred years. App. 1, at 60. In addition, the Applicant asserts that PSNH's parent, Eversource, operates New England's largest utility system serving more than 3.6 million electric and natural gas customers across Connecticut, Massachusetts, and New Hampshire. App. 1, at 60. According to the Applicant, Eversource owns and operates approximately 4,270 circuit miles of transmission lines, 72,000 pole miles of

distribution lines, 578 transmission and distribution stations and 450,000 distribution transformers. App. 1, at 60; *see* App. 5, at 28. The Applicant further asserts that Eversource is a leading expert in building, owning and operating transmission facilities and is an Edison Award recipient for transmission ownership and service. App. 1, at 60. The Applicant concludes that PSNH independently and, as an affiliate of Eversource, has sufficient technical and managerial resources to ensure construction and operation of the Project in accordance with the conditions of the Certificate. App. 1, at 60.

The Applicant's witnesses, Bryan Hudock and David Plante, testified that NEP and PSNH will have Project Teams that will be responsible for engineering, design, and construction of the Project. *See* App. 5, at 13.

The NEP Project Team will be led by Bran Hudock as the Lead Project Manager. *See* App. 5, at 13. Mr. Hudock has been National Grid's Project Manager since 2012. *See* App. 5, at 2; App. 5, Appx. A. During his tenure with NEP, Mr. Hudock was responsible for a number of projects involving capital investment in electric transmission and distribution assets. *See* App. 5, at 2; App. 5, Appx. A. Prior to joining NEP, from 2010 to 2012, Mr. Hudock was a Project Manager at Siemens Industry and was responsible for projects involving design, manufacture and installation of steel mill equipment. *See* App. 5, at 2; App. 5, Appx A.

The PSNH Project Team will be led by David Plante as the Lead Project Manager for transmission projects in New Hampshire. *See* App. 5, at 13. Mr. Plante's resume and his pre-filed testimony indicate that he has more than 25 years of professional experience in the electric transmission and distribution industry that includes design, management and construction of high voltage transmission lines and substation projects. *See* App. 5, at 3; App. 5, Appx. B. Mr. Plante

has served in the position of Lead Project Manager – Transmission Projects with PSNH since 2002. *See App. 5, at 3; App. 5, Appx. B.*

Mr. Hudock and Mr. Plante explain that the NEP and PSNH Project Teams will have Project Managers who will report to Mr. Hudock and Mr. Plante and will be responsible for the day-to-day oversight of each team. *See App. 5, at 14; App. 5, Appxs. C, D.* Each team also will have Construction Managers who will report to the Project Managers and will be responsible for planning and coordinating all construction activity and oversight of the contractors, field supervisors, and environmental inspectors. *See App. 5, at 14; App. 5, Appxs. C, D.* Mr. Hudock and Mr. Plante note that the Project Teams will also include safety supervisors and representatives, project environmental teams, project engineering teams and project outreach specialists. *See App. 5, at 15; App. 5, Appxs. C, D.*

NEP personnel will supervise Black and Veatch, a contractor hired by NEP to design and construct the NEP-portion of the Project. *See App. 20, at 8.* According to the Applicant, Black and Veatch is a full-service global engineering, consulting, construction and operations company specializing in energy and infrastructure projects. *See App. 20, at 8.* The Applicant claims that Black and Veatch's ability to design and construct the Project is evidenced by the fact that it was selected and hired to design and construct a 150 mile, 500 kV transmission line between the Salt River Project's Palo Verde nuclear plant and the Browning Substation. *See App. 20, at 8.* An industry journal, the Engineering News-Record, ranked Black and Veatch first in the Power category and near the top of its list in Power Delivery. *See App. 20, at 8.*

PSNH personnel will supervise TRC Engineering, a contractor hired to design the PSNH section of the Project. *See App. 20, at 8.* TRC Engineering is a national engineering, consulting and construction management firm that managed the design and construction of a 39-mile,

115 kV transmission line and 115 kV terminal with breakers that extended from Moscow to Benton, Maine. *See App. 20, at 8.*

Once the Project is complete, it will become part of the interconnected transmission network that is overseen by ISO-NE. *See App. 5, at 23.* The local control centers of Eversource and National Grid will operate the transmission system under the guidance of ISO-NE. *See App. 5, at 23.* Both the Applicant and ISO-NE will work together to ensure that the Project is operated in a safe, reliable and compliant manner. *See App. 5, at 23.*

Mr. Hudock and Mr. Plante each testified that the Project will require little routine maintenance. *See App. 5, at 24.* Routine maintenance generally will include replacing damaged insulator discs, repair or replacement of damaged guy wires, aerial patrols for inspection of structures, foot patrols to visually inspect the facilities, aerial thermographic inspections, patrol of lines after every interruption if the specific cause cannot be identified, aerial patrol of lines for vegetation management inspection, recurring vegetation maintenance within cleared areas and within right-of-way, etc. *See App. 5, at 24-33.* Both Mr. Hudock and Mr. Plante opined that the Applicant has the required technical and managerial capability to design, construct and operate the Project in compliance with the Certificate. *See App. 5, at 24-33.* The Applicant's engineers, Jessica T. Farrell, PE and Garrett E. Luszczki, in their pre-filed testimony, proffered the same conclusion. *See App. 5, at 9.*

*ii. Counsel for the Public and Ms. Huard*

Counsel for the Public stipulated that the Applicant and its contractors "have provided evidence that they have experience in designing, constructing, operating, and maintaining similar transmission facilities throughout the Northeast region of the United States." *See App. 23, ¶9.*

Ms. Huard argues, however, that the Applicant itself, without relying on its experts and contractors, does not have the technical and managerial capacity to construct and operate the Project in compliance with the Certificate. *See* Pre-Filed Testimony, Margaret Huard, at 11.

*b. Subcommittee Deliberations*

We carefully reviewed all the exhibits, testimony, and comments regarding the managerial and technical capability of the Applicant and find, subject to the conditions contained herein, that the Applicant has demonstrated the managerial and technical capability to construct and operate the Project in accordance with the terms and conditions of the Certificate. The Applicant's managerial and technical capacity is evidenced by its experience and successful track record in the industry. Furthermore, the Applicant's project managers, experts, and consultants demonstrate a high level of expertise, experience and knowledge of transmission lines in general and the Project specifically. It is noted, however, that under RSA 162-H, any transfer of the Certificate or amendments to the Certificate by the Applicant are required to be approved by the Committee. The Committee's authority to approve or deny a proposed transfer or amendment is set forth at RSA 162-H:4 and RSA 162-H:5, I. Therefore, as a condition of the Certificate, the Applicant shall immediately notify the Site Evaluation Committee of any change in ownership or ownership structure of the Applicant and shall seek approval of the Site Evaluation Committee for such changes.

**2. Financial Capability**

Under N. H. CODE OF ADMIN. RULES, Site 301.13, when determining whether an Applicant has the financial capability to construct and operate the Project, the Subcommittee is required to consider the following:

- (1) the applicant's experience in securing funding to construct and operate energy facilities similar to the proposed facility;

- (2) the experience and expertise of the applicant and its advisors, to the extent the applicant is relying on advisors;
- (3) the applicant's statements of current and pro forma assets and liabilities; and
- (4) financial commitments the applicant has obtained or made in support of the construction and operation of the proposed facility.

N.H. CODE ADMIN. RULES, Site 301.13, (a)(1)-(4) (2015).

a. *Positions of the Parties*

i. *Applicant*

The Applicant asserts that both NEP and PSNH have sufficient financial capability to construct and operate the Project in accordance with conditions of the Certificate. App. at 58-60.

The Applicant's witnesses, Brian McNeill for NEP and Emilie O'Neil and James Vancho for PSNH, asserted that the overall cost of the Project will be approximately \$72 million, consisting of \$35 million associated with NEP's portion and \$37 million associated with PSNH's portion of the Project. Tr., 06/13/2016, Afternoon Session, at 6 and 8. Mr. McNeill testified that each company will be responsible for its own Project design, engineering and construction costs.

*See* App. 3, at 5. Mr. McNeill noted that the joint permitting and siting cost will be divided between the companies in proportion to their respective ownership of the Project. *See* App. 3, at 5.

The Applicant asserts that NEP's financial capability to construct and operate the Project is evidenced by its financial rating and its track record of financing large energy projects. App. 1, at 58. NEP's senior unsecured rating is Moody's A3 and Standard & Poors A-. App. 1, at 58. According to the Applicant, these credit ratings provide NEP with access to the full spectrum of the public and private debt markets. App. 1, at 58. In addition, the Applicant asserts that NEP's

parent, National Grid USA, manages its financial liquidity on a group basis and NEP, as its subsidiary, can lend and borrow from the group's regulated money pool. App. 1, at 58. The Applicant submitted the NEP and National Grid USA audited balance sheets for 2012 and 2013 in support of its position that NEP has the sufficient financial capability to construct and operate the Project in compliance with terms and conditions of the Certificate. App. 1, Appx. C. Over the three years ending December 31, 2014, NEP invested approximately \$500 million in energy infrastructure. App. 1, at 58; App. 3, at 4. These investments were financed with a combination of internally generated cash flow, short-term debt issuances and capital contributions from its parent, National Grid USA. App. 1, at 58. Mr. McNeill further explained that the Project's construction and operation will be financed in a similar manner. Tr., 06/13/2016, Afternoon Session, at 11; App. 3, at 5. He also testified that NEP may obtain limited or non-resource financing at or after the Project's commercial operation date. *See* App. 3, at 5. Mr. McNeill testified that, once the Project commences its operation, NEP will begin receiving monthly cash revenue through the regional network service rate that will provide cash flow necessary to satisfy NEP's obligations to debt and equity investors and meet its working capital needs. Tr., 06/13/2016, Afternoon Session, at 11; App. 3, at 5. Mr. McNeill concluded that NEP has a sufficient financial capacity to ensure construction, operation and decommissioning of the Project in accordance with the Certificate. *See* App. 3, at 6.

The Applicant asserts that PSNH also has a proven record of financing similar Projects. App. 1, at 60. According to the Applicant, from 2012 to 2014, PSNH invested \$646 million in new energy infrastructure. App. 1, at 60; *see* App. 4, at 5. It financed these investments with a combination of internally generated cash flow, long- and short-debt issuances, and capital contributions from its parent, Eversource. App. 1, at 60; *see* App. 4, at 5-6. The Applicant

explains that PSNH has an investment grade corporate credit rating and a stable, long-term, outlook with each of the credit rating agencies, including a rating from S&P. App. 1, at 60. The Applicant argues that such ratings are indicative of PSNH's ability to finance the Project. App. 1, at 60.

PSNH's financial capacity is also evidenced by the financial status of its parent, Eversource. App. 1, at 60. Eversource was listed as number 359 on the 2014 Fortune 500 list of largest U.S. companies with an equity market capitalization of approximately \$15.5 billion. App. 1, at 60. Its equity is traded on the New York Stock Exchange and it has a corporate credit rating of A, Baal and BBB+ from S&P, Moody's and Fitch's respectively. App. 1, at 60.

Emilie O'Neil and James Vancho testified about the ability of PSNH to finance its portion of the Project. Ms. O'Neil and Mr. Vancho, in their pre-filed testimony, testified that PSNH will finance the initial financing of the Project with internally generated cash and short-term borrowings from Eversource. *See* App. 4, at 6. As short-term debt accumulates, it will be refinanced with long-term debt issued in the capital markets. *See* App. 4, at 6. PSNH may also receive capital contributions from its parent, Eversource. *See* App. 4, at 7. Once the Project is in service, PSNH will begin receiving monthly cash revenue through the regional network service rate. *See* App. 4, at 7. According to Ms. O'Neil and Mr. Vancho, these revenues will provide cash flow required to satisfy PSNH's obligations to debt and equity investors and meet its working capital needs. *See* App. 4, at 7. Ms. O'Neil and Mr. Vancho explained that PSNH is authorized by the New Hampshire Public Utilities Commission to incur short-term borrowings of approximately \$306 million and has two forms of short-term liquidity: (i) it can borrow up to \$300 million in inter-company loans from Eversource; and (ii) it has a \$300 million line of credit with a syndicate of banks. *See* App. 4, at 8. Ms. O'Neil and Mr. Vancho concluded that PSNH

has the financial capacity to construct, operate, maintain and decommission the Project in accordance with the Certificate. *See* App. 4, at 9.

*ii. Counsel for the Public and Ms. Huard*

Counsel for the Public stipulates that the Applicant has experience securing funding and financing the construction, operation and maintenance of similar transmission line projects. *See* App. 24, ¶6.

Ms. Huard acknowledges that the Applicant has a strong financial position. *See* Huard 52, at 8-9. She argues, however, that it may change in the future. *See* Huard 52, at 8-9.

*b. Subcommittee Deliberations*

The Applicants have sufficient financial ability to construct and operate the Project in compliance with the Certificate. Both Applicants have substantial experience in financing projects of similar magnitude. Both Applicants are financially stable and sound. We received extensive testimony and exhibits evidencing the Applicants' capacity. We note Ms. Huard's testimony about the Applicants' working capital. We find, however, that the Applicants have favorable credit ratings from the leading rating agencies. They have the ability to obtain low interest rates on their debt. Each Applicant has substantial cash flow that secures their financial stability. Finally, we note that Counsel for the Public stipulated and agreed that the Applicants have the financial capacity to construct and operate the Project in compliance with the Certificate. Therefore, based on testimony and evidence presented, we find that the Applicant has the financial capacity to construct, operate and maintain the Project in compliance with the Certificate.

## **E. Orderly Development of the Region**

RSA 162-H:16, IV(b), requires the Subcommittee to consider whether the proposed Project will unduly interfere with the orderly development of the region, with due consideration given to the views of municipal and regional planning commissions and municipal governing bodies. *See RSA 162-H:16, IV(b).*

Under N. H. CODE OF ADMIN. RULES, Site 301.15, when determining whether the Project will unduly interfere with the orderly development of the region, the Subcommittee is required to consider the following:

- (a) the extent to which the siting, construction, and operation of the proposed facility will affect land use, employment, and the economy of the region;
- (b) the provisions of, and financial assurances for, the proposed decommissioning plan for the proposed facility; and
- (c) the views of municipal and regional planning commissions and municipal governing bodies regarding the proposed facility.

N.H. CODE ADMIN. RULES, SITE 301.15 (a)-(c)

### **1. Positions of the Parties**

#### *a. Land Use*

The Applicant claims that the Project will have a “minimal” effect on land use in the region. App. at 96. The Applicant asserts that the right-of-way where the Project will be constructed was in place and was used for the siting and operation of distribution and transmission lines since the early to mid-20<sup>th</sup> century. App. 1, at 96. The Applicant acknowledges that the land usage along the right-of-way significantly changed since the time the line was first put in place. App. 1, at 96. The Applicant asserts, however, that even considering all the recent developments, the construction and operation of the Project will have an insignificant effect on land use in the region. App. 1, at 96. Specifically, the Applicant submits

that there are several forestry, conservation, outdoor recreation and open space parcels along the right-of-way. App. 1, at 96. The forest within and surrounding the right-of-way is harvested for timber. App. 1, at 96. The Applicant argues that the Project will not affect recreational usage, off-road vehicle riding, hiking, biking, horseback-riding and walking associated with the right-of-way. App. 1, at 96. The Applicant claims that the Project will not have an adverse impact on the continued management and use of conservation and recreation land within and adjacent to the right-of-way. App. 1, at 96; App. 1, Appx. AI, at 9-11. The right-of-way crosses several recreational paths and trails. The Applicant asserts that it will work with the Department of Resources and Economic Development, Bureau of Trails and other groups to minimize temporary impacts from construction. App. 1, at 96.

The Applicant presented evidence that the Project will not have a “significant permanent” effect on the agricultural usage of the property adjacent to the right-of-way and assures that it will work with land owners to minimize temporary impacts to agricultural uses that may be caused by construction of the Project. App. 1, Appx. AI, at 6; App. 1, at 96.

The Applicant argues that “[t]he addition of another transmission line in the already developed [right-of-way] will not have an adverse impact on residential areas or housing development.” App. 1, at 97. Similarly, the Applicant asserts that construction and operation of the Project will not have an adverse effect on commercial or industrial land use along the right-of-way. App. 1, at 96.

According to the Applicant, the Project will have no adverse impact on tourism in the region. App. 1, at 101. The Applicant claims that the Project will be located within an existing right-of-way and, therefore, will not change or have any impact on tourism activities associated with tourist attractions, trails and conservation and open space areas. App. 1, at 101.

The Applicant admits that the Project will cross transportation and other utility corridors, including Interstate-93, state and local roads, and two natural gas line crossings. App. 1, at 97. The Applicant further admits that, to accommodate construction, it anticipates that traffic at the crossings with state and local roads may be stopped between 7:30 a.m. and 4:00 p.m. and between 9:00 p.m. and 4:00 a.m. for installation of crossings with Interstate-93. Tr., 06/13/16, Morning Session, at 88-103. The Applicant claims, however, that it will coordinate its construction activities with the New Hampshire Department of Transportation, local municipalities, and gas utility companies to ensure that the Project will not have an adverse impact on transportation or utility operations. App. 1, Appx. AI, at 7-8; App. 1, at 97. In addition, the Applicant requests that the Subcommittee approve construction of the new transmission line along, over, and across locally maintained highways. *See* App. 7, at 4. The Applicant presented a traffic management plan and asserted that it designed the Project so that it will not interfere with the safe, free and convenient use of public travel along local roads. App. 1, Appx. AH; *see* App. 7, at 4. Mark D. Suennen, Project Manager and Senior Traffic Engineer for VHB, testified that this local roadway traffic management plan meets “all requirements that would otherwise be enforced at the local level for such an approval.” *See* App. 7, at 4. Therefore, the Applicant requests that the Subcommittee accept and approve said plan as sufficient to meet the needs of the local communities. *See* App. 7, at 4.

The Applicant acknowledges that construction of the Project will cause some temporary adverse effect on land use by causing traffic-related noise, traffic diversion, clearing of vegetation, use of marshalling yards and laydown areas for equipment and materials, installation of soil erosion and sedimentation controls, dust control, installation of foundations, structures, conductor and shield wire, use of heavy equipment and other associated construction activities.

App. 1, at 97; *see* App. 7, at 5. The Applicant asserts, however, that the total construction traffic impact at any given time will be less than the DOT minimum threshold for a traffic impact study of 100 peak hour vehicle trips. *See* App. 7, at 6. The Applicant explains that it will utilize best management practices and will follow state and federal permit requirements to minimize temporary impacts associated with construction of the Project on the land use of the region. App. 1, at 97.

In support of its position that construction and operation of the Project will have no adverse effect on land use of the region, the Applicant submitted the Pre-Filed Testimony of Mr. Robert W. Varney and a report titled “Review of Land Use and Orderly Development, The Merrimack Valley Reliability Project”. App. 1, Appx. AI. In his Pre-Filed Testimony, Mr. Varney testified that the land used along the right-of-way includes forest, agriculture, residential, commercial/industrial, transportation, institutional/government, recreation areas, conservation, historical, and natural features. *See* App. 15, at 6; App. 1, Appx. AI, at 5. After a review of the Project’s impact on land usage, he concluded that “[t]here will be no changes to these land uses as a result of the Project.” *See* App. 15, at 7.

Counsel for the Public stipulates that utilizing pre-existing corridors is consistent with the orderly development of the region and that construction and operation of the Project will occur within an existing right-of-way. *See* App. 24, ¶¶43-44. Counsel for the Public further stipulates that the Project’s impacts on local land use during construction of the Project will be temporary. *See* App. 24, ¶45.

*b. Employment*

The Applicant used the policy forecasting model created by Regional Economic Models Incorporate (REMI) to estimate the effect of the Project on the economy, including employment,

in the region.<sup>7</sup> App. 1, at 98; App. 16, at 3-4. The resulting forecast was provided to the Subcommittee as a report titled: “Economic Impact of the Merrimack Valley Reliability Project, REMI Analysis of Construction Spending and Property Taxes” (Study Report). App. 1, Appx. AJ. The Subcommittee also received an amended Study Report on May 19, 2016. According to the testimony of the Study Report’s author, Alfred P. Morrissey, the Project is expected to support approximately 545 job years during the five-year construction phase, with the greatest job impact in 2017 (318 annual jobs). App. 21, Appx. AJ, Figure 3, Figure 4; App. 16, at 7-8. The REMI model estimated that the majority of jobs will be created in Hillsborough and Rockingham counties where the spending will take place. *See* App. 16, at 8; App. 21, Appx. AJ, at 2. Mr. Morrissey testified that the greatest impact on employment will be in the construction industry – 200 job years (37%). *See* App. 16, at 8; App. 21, Appx. AJ, Figure 5. The professional service industry, including engineering, management, planning, design, legal and other professional services will create approximately 103 job years (19%). *See* App. 16, at 7; App. 21, Appx. AJ, Figure 5. Mr. Morrissey estimated that each one million dollars in annual spending on the Project will support approximately 7.6 annual jobs in New Hampshire. *See* App. 16, at 9; App. 21, Appx. AJ, Figure 6.

As an indirect effect of increased property tax revenue associated with the operation of the Project, and assuming that such revenue will be utilized by the Towns, the Applicant estimates that it may lead to the creation of 27 direct, indirect, and induced annual jobs. App. 16, at 10; App. 21, Appx. AJ, at 8.

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<sup>7</sup> The Applicant used a 160 industry, 65 region version of the model that covers the State of New Hampshire and the Commonwealth of Massachusetts. App. at 98. The REMI model is programmed to calculate and project the economic impact of projects in New Hampshire and Massachusetts, based on assumptions about the amount, timing, and type of Project expenditures. App. at 98.

c.        Economy

Mr. Morrissey explained that the REMI model estimated that spending on labor and materials from 2014 to 2018, will raise real New Hampshire GDP by \$62.8 million, personal income by \$32.8 million, and state tax revenues by \$1.2 million. *See Supp. App. 16*, at 9. Mr. Morrissey admitted that operational and maintenance spending impacts will be minimal due to the fact that the Project will be located within an already developed and maintained right-of-way. *See App. 16*, at 10. Mr. Morrissey asserted, however, that the Project will have a positive and long lasting effect on surrounding municipalities by generating higher property tax revenues. *See App. 16*, at 10. Mr. Morrissey estimated that property tax payments to local governments will rise by \$1.5 million in the first year of Project's operation.<sup>8</sup> Tr., 06/14/2016, Afternoon Session, at 6-7; App. 16, at 11; App. 1, Appx. AJ, at 8; Tr., 6/14/16, Morning Session, at 87. Mr. Morrissey and PSNH's expert, Lisa K. Shapiro, Ph.D., asserted that the estimated first year property taxes will include the following estimated property tax payments: (i) \$376,800 to Pelham; (ii) \$54,500 to Hudson; (iii) \$147,900 to Windham; and (iv) \$923,850 average of estimated amounts of property tax payments by PSNH.<sup>9</sup> *See App. 16*, at 11; App. 17, at 6; Tr., 6/14/16, Morning Session, at 88.

The Applicant claims that the Project will have a minimal effect on property values. App. 1, at 99-101. The Applicant relies on a study entitled "High Voltage Transmission Lines and New Hampshire Real Estate Markets: A Research Report" authored by Dr. James Chalmers and Dr. Chalmers' Pre-Filed Testimony. App. 1, Appx. AK. Dr. Chalmers testified that general studies and literature indicate that high voltage transmission lines generally have no effect on the

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<sup>8</sup> Estimation of increases in property taxes during the first year of operation of the Project is based on the expected value of the new equipment that will be placed into service and local property tax rates. *See App. 16*, at 10-11.

<sup>9</sup> (\$1,287,000 (payments to Londonderry and Hudson) + \$70,700 (payments to Hillsborough and Rockingham County)/2=\$678,850. *See App. 16*, at 10; App. 17, at 6.

value of commercial and industrial properties. *See* App. 18, at 5; App. 1, Appx. AK, at 11; App. 1, at 99. The only exception is when the development is constrained in a way that reduces the income producing potential of the property. *See* App. 18, at 5; App. 1, at 99. Dr. Chalmers claimed that general studies and literature indicate that vacant land's value is generally not impacted by transmission lines. *See* Ap. 18, at 5; App. 1, at 99. He identified, however, two exceptions to his conclusion: (i) development is constrained by the right-of-way; or (ii) the lines are the principal differentiating feature of otherwise similar parcels. *See* App. 18, at 5; App. 1, at 99. As to the residential properties, Dr. Chalmers asserted that only half of the studies found some negative proximity effects. *See* App. 18, at 4; App. 1, Appx. AK, at 2; App. 1, at 99. Dr. Chalmers further asserted that effects tend to be small (1-6% range) and decrease rapidly with distance from the lines. *See* App. 18, at 4; App. 1, Appx. AK, at 3, 6-7; App. 1, at 99.

Dr. Chalmers also discussed three New Hampshire specific studies confirming his conclusion: (i) case studies analyzing 58 individual residential sales of properties crossed by or bordered by the lines; (ii) subdivision studies analyzing the timing and pricing of lot sales in 13 subdivisions where some lots in the subdivision were crossed by or bordered by the lines and others were not; and (iii) a market research review of sale price to list price ratio and days on market for residential sales in different locational zones relative to a line corridor. *See* App. 18, at 4-5; App. 1, Appx. AK, at 16-18; App. 1, at 99-100.

Dr. Chalmers argues that case studies demonstrate that, out of 58 properties, 10 properties had a sale price effect, 11 properties could have a possible effect and 37 had no effect. *See* App. 18, at 8; App. 1, Appx. AK, at 30; App. 1, at 99-100. Of the ten studies that found effect, one house was located more than 100 feet from the edge of the right-of way, and 7 were located within 30 feet of the right-of-way. *See* App. 18, at 8; App. 1, Appx. AK, at 3, 30; App. 1, at 100.

Except for one of the 10 effected houses, close proximity was combined with a clear visibility of the lines. *See* App. 18, at 8; App. 1, Appx. AK, at 30; App. 1, at 100.

Dr. Chalmers claims that 8 out of 13 subdivision studies demonstrated no sale price or marketing time effect was associated with transmission lines. App. 1, at 100; App. 1, Appx. AK, at 3, 93. An effect on the sale price was observed in cases where lots were heavily encumbered. *See* App. 18, at 11-12; App. 1, Appx. AK, at 93; App. 1, at 100.

Dr. Chalmers acknowledged that “caution must be used in drawing conclusions based on the relatively small numbers of observations.” *See* App. 18, at 14. He asserted, however, that the market activity research indicated no systematic market disadvantage of the encumbered or proximate properties relative to more distant real estate with respect to listing price ratios and days on the market. *See* App. 18, at 13-14; App. 1, at 100.

Dr. Chalmers is not aware of any New Hampshire studies that actually analyzed the value of real estate prior to and after the construction of transmission lines. Tr., 06/14/2016, Afternoon Session, at 39. Dr. Chalmers testified that he is aware of two studies in the United States that analyzed the property values before and after construction of the transmission line. Tr., 06/14/2016, Afternoon Session, at 40-41. He further testified, however, that the results of these studies contradicted each other. Dr. Chambers concluded that: (i) there is no evidence that transmission lines result in systematic or widespread effects on real estate markets; and (ii) where there are effects, they are small and decrease rapidly with distance. *See* App. 18, at 14; App. 1, at 100. Based on the fact that the Project will be located within an existing right-of-way, Dr. Chalmers concluded that the properties that may be potentially affected by the Project are only the homes: (i) that are located very close to the right-of-way; and (ii) that do not have clear

visibility of the existing lines, but will have clear visibility of existing, new or relocated lines after the Project is constructed. *See* App. 18, at 16; Tr., 6/14/16, Morning Session, at 91-92.

Based on these conclusions, Dr. Chalmers analyzed the effect the Project may have on the value of residential real estate located within 100 feet of the Project's right-of-way. App. 1, at 100-101. According to Dr. Chalmers, there are two sections of the corridor where the visibility of the Project may change the value of residential real estate: (i) a 7.6 mile section in Segment 2 from the state line north to Windham where a 115 kV line will be relocated to within 30 feet of the edge of the right-of-way (27 homes); and (ii) a 3.8 mile section in Segment 3 in Hudson and Londonderry where the new 345 kV line will be built approximately 85 feet from the edge of the right-of-way (25 homes). *See* App. 18, at 16; App. at 100; Tr., 6/14/16, Morning Session, at 92-93, 98. Dr. Chalmers further noted that some of these homes may already have a clear visibility of existing lines and others may be sufficiently screened from the visibility of the Project. *See* App. 18, at 17; App. 1, at 101. At the same time, Dr. Chalmers acknowledged that it is unclear how many properties will be affected because a "count of the number of affected properties would require property-specific consideration." *See* App. 18, at 17. He asserted, however, that only a "small" number of properties may experience small market value effect and that "would represent a highly localized, property-specific issue that would not be discernible in the local real estate market as a whole and certainly not the regional market." *See* App. 18, at 17; App. 1, at 101.

Ultimately, Dr. Chalmers concluded that "there would be no discernable, measurable effect on . . . local real estate markets or regional real estate markets." Tr., 6/14/16, Morning Session, at 90.

Ms. Huard disagrees with the assertion that the Project will not have a negative effect on the value of real estate in the region. She claims that the Project will significantly impair her and her neighbors' ability to sell their houses. Her conclusion is based on her own lay opinion. She did not present any expert testimony or analysis to support her opinion.

*d.      Financial Assurances for Decommissioning*

The Applicant's witnesses, Mr. McNeill, Ms. O'Neil and Mr. Vancho, testified that neither NEP nor PSNH anticipate the need for decommissioning of the Project. *See App. 3, at 6; App. 4, at 8.* They asserted that transmission lines similar to those in the Project are typically rebuilt, as needed, and continue in service. *See App. 3, at 6; App. 4, at 8.* Mr. McNeill, Ms. O'Neil and Mr. Vancho also testified, however, that if it is determined that the Project should be decommissioned, NEP and PSNH will begin collecting future decommissioning costs through the FERC-approved transmission tariff. *See App. 3, at 6; App. 4, at 8.*

To ensure proper decommissioning and availability of funds for decommissioning, Counsel for the Public requests that the Subcommittee condition the Certificate and require the certificate holder to: (i) submit a report to the Committee every 10 years indicating any changes in the need for the Project to ensure the continued reliability of the regional bulk transmission system; (ii) promptly notify the Committee of any retirement obligation that arises; and (iii) submit to the Committee a decommissioning plan in accordance with then-applicable rules upon any imposition of a decommissioning obligation or prior to the retirement of any part of the Project. Tr., 06/14/2016, Afternoon Session, at 168-169.

*e.      Views of Municipal and Regional Planning Commissions and Municipal Governing Bodies*

On August 11, 2015, the Committee forwarded correspondence to the Towns of Derry, Hudson, Litchfield, Londonderry, Pelham, Salem, and Windham. The Committee advised these

municipalities of the right to intervene or otherwise present comments regarding the Application. None of the municipalities requested to intervene in the docket. None of the Towns provided any comments to the Subcommittee regarding the Project.

The Committee also advised the Hillsborough County Board of Commissioners and the Rockingham County Board of Commissioners of their right to intervene and/or provide public comments in this docket. The Nashua Regional Planning Commission and the Southern New Hampshire Planning Commission were notified as well. Neither the Boards of Commissioners nor the Planning Commissions requested to intervene or provided comments regarding the Project.

In his report entitled: “Review of Land Use and Orderly Development, The Merrimack Valley Reliability Project,” Mr. Varney asserted that he reviewed the Regional Plan of the Southern New Hampshire Planning Commission (“Moving Southern New Hampshire Forward 2015-2035”), and the Regional Plan of Nashua Regional Planning Commission. App. 1, Appx. AI, at 13-14. Upon review of these Plans, Mr. Varney concluded that the Project will be consistent with regional plans because it protects existing land use development patterns and supports the need for reliable energy. App. 1, Appx. AI, at 14. Mr. Varney also reviewed the Master Plans and Ordinances of the following Towns: (i) Londonderry; (ii) Hudson; (iii) Windham; and (iv) Pelham. Tr., 06/14/2016, Afternoon Session, at 24; App. 1, Appx. at 15-19. Upon review of the Master Plans and Zoning Ordinances of said municipalities, Mr. Varney reached the following conclusion:

In most instances, these long-range plans do not directly relate to the construction or operation of the Project. The Project is consistent with the general goals and strategies of local and regional plans, and will not interfere with their implementation. The Project utilizes existing corridors so as to have the least

amount of impact on local land use patterns and prevailing land uses, and is consistent with orderly development of the region.

App. 1, Appx. AI, at 19.

## **2. Subcommittee Deliberations**

Although notified, none of the municipal or regional planning agencies participated in this docket. The Applicant provided credible evidence demonstrating that construction and operation of the Project will be consistent with Master Plans and Ordinances of effected communities. It is also noted that the Applicant seeks to construct the Project within the existing right-of-way that, for years, has been used to transmit electricity and is encumbered by associated structures and equipment. Construction of the Project within an already existing and used right-of-way is consistent with the orderly development of the region. As to the effect on local economy and employment, the Applicant provided credible evidence demonstrating that the Project will have a positive effect on the local economy by providing new employment during the construction phase of the Project, and by generating additional significant property tax payments to local governments.

Our consideration of the impact of the Project on the orderly development of the region is informed by the fact that this Project is a reliability project that has been determined by ISO-NE to be necessary to assure continued system stability and reliability to the region.

Considering that we granted the Applicant's request not to file a decommissioning plan, we find it reasonable to require the Applicant to comply with the following conditions in order to ensure the orderly development of the region. The Applicant shall: (i) submit a report to the Committee every 10 years indicating any change in the need for the Project to ensure the continued reliability of the regional bulk transmission system; (ii) promptly notify the Committee

of any retirement obligation that arises; and (iii) submit to the Committee a decommissioning plan in accordance with then-applicable rules upon any imposition of a decommissioning obligation, or prior to the retirement of any part of the Project.

We have reviewed the exhibits and testimony pertaining to the orderly development of the region and considered this Application in the context of a reliability project. We find that this reliability project will not unduly interfere with the orderly development of the region. We also accept the expert testimony presented by the Applicant that this reliability project will only have a minimal effect on specific properties along the right-of-way. Given the importance of this reliability project, we find that the minimal impact is outweighed by the need for system stability and reliability.

## **F. Adverse Effects**

Under New Hampshire law, the Subcommittee may only issue a Certificate of Site and Facility if it finds that the Project will not have an unreasonable adverse effect on: (i) aesthetics; (ii) historic sites; (iii) air and water quality; (iv) the natural environment; and (v) public health and safety. *See RSA 162-H:16, IV(c).* The Subcommittee must consider each of the issues set forth in RSA 162-H:16, IV(c). If the Subcommittee finds that the proposed Project will have an unreasonable adverse effect on any one of the statutory criteria, the Subcommittee must deny a Certificate of Site and Facility. In this docket, we find that the Applicant has met this burden.

### **1. Aesthetics**

In determining whether the Project will have an unreasonable adverse effect on aesthetics, the Subcommittee is required to consider the following factors:

- (1) the existing character of the area of potential visual impact;
- (2) the significance of affected scenic resources and their distance from the proposed facility;

- (3) the extent, nature, and duration of public uses of affected scenic resources;
- (4) the scope and scale of the change in the landscape visible from affected scenic resources;
- (5) the evaluation of the overall daytime and nighttime visual impacts of the facility as described in the visual impact assessment submitted by the applicant and other relevant evidence submitted pursuant to Site 202.24;
- (6) the extent to which the proposed facility would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality or as viewed from scenic resources of high value or sensitivity; and
- (7) the effectiveness of the measures proposed by the applicant to avoid, minimize, or mitigate unreasonable adverse effects on aesthetics, and the extent to which such measures represent best practical measures.

*See N.. CODE OF ADMIN. RULES, Site 301.14 (a)(1)-(7).*

*a. Positions of the Parties*

*i. Applicant*

The Applicant claims that the Project's effect on aesthetics of the region will be minimized through the implementation of the following minimization and mitigation measures:

- Siting the line within an existing transmission corridor to minimize required vegetation clearing and perceived change in land use;
- Utilizing self-weathering steel to minimize color contrast with surrounding vegetation;
- Utilizing transmission structure designs and spacing that are consistent with existing structures on the right-of-way; and
- Utilizing single circuit H-frame structures to reduce the height of the new 3124 Line.

App. 1, at 65.

Considering these mitigation measures, the Applicant asserts that the Project will not have an unreasonable adverse effect on the aesthetics of the region. The Applicant filed a Visual Impact Assessment (VIA) prepared by Environmental Design & Research. *See* App. AB.<sup>10</sup> The Applicant also filed the testimony of John D. Hecklau. *See* App. 8.

The VIA analyzed the visual impact of the Project on scenic public resources within the visual study area that was defined as a two-mile radius around the center line of the proposed transmission line. *See* App. 8, at 4; App. 1, at 62; Tr., 06/13/2016, Afternoon Session, at 56. The Applicant asserts that a review of existing databases demonstrated that there are no National or State Parks, National Forests, National Heritage Areas, National Wildlife Refuges or State Wildlife Management Areas, National Natural Landmarks or National/State Designated Wild, Scenic or Recreational Rivers, or other sites that would typically be considered scenic resources of statewide or national significance within the study area. App. 1, at 62. The Applicant admits, however, that the VIA identified 108 potentially scenic public resources within the study area: (i) one state forest; (ii) four scenic byways/drives; (iii) 18 town-designated scenic areas; (iv) four recreational trails; (v) numerous local parks and conservation areas; (vi) four golf courses; and (vii) a number of surface water resources. Tr., 06/13/2016, Afternoon Session, at 48; App. 1, at 62.

Mr. Hecklau testified that the area where new structures will be potentially visible where the pre-existing lines were not visible will total approximately 2.3 square miles, or 3% of the study area. *See* App. 8, at 9; App. 1, Appx. AB, at 32, 92; App. 1, at 63.

According to Mr. Hecklau, the field review at potential scenic resources indicated that the Project will not be visible from locations beyond one-half mile from the right-of-way. Tr., 06/13/2016, Afternoon Session, at 48; App. 8, at 6, 11; App. 1, Appx. AB, at 37; App. 1, at 63.

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<sup>10</sup> Supplemented on December 31, 2015.

Mr. Hecklau indicated that there are only 51 potential scenic resources located within one-half mile of the Project center line. Tr., 06/13/2016, Afternoon Session, at 48; App. 8, at 7. Mr. Hecklau also asserted that 23 out of 51 potential scenic resources “would actually not be considered scenic resources due to a lack of formal scenic designation, low scenic quality, and/or lack of public access.” *See* App. 8, at 7; Tr., 06/13/2016, Afternoon Session, at 48. According to Mr. Hecklau, the Project will not be visible from 15 additional potential scenic resources. *See* App. 8, at 7; App. 1, Appx. AB, at 43. Mr. Hecklau concluded that there are 13 potential scenic resources within one-half mile from the right-of-way that may have views on the proposed line.<sup>11</sup> *See* App. 8, at 7, 13; App. 1, at 63, 91; Tr., 06/13/2016, Afternoon Session, at 48. Mr. Hecklau further opined, however, that views of the Project “are likely to be distant and/or substantially obscured” from 3 out of the 13 (Londonderry Town Center and Public Schools, George M. Muldoon Park and Town Forest and Robinson Pond Park) (Londonderry Town Center and Public Schools, George M. Muldoon Park and Town Forest and Robinson Pond Park) identified potential scenic resources. *See* App. 8, at 111-12; Tr., 06/13/2016, Afternoon Session, at 49.

Mr. Hecklau also asserted that the composite contrast ratings for eight key observation points within the remaining 10 scenic resources ranged from 0.2 to 3.2 on the scale of 0 (insignificant) to 4 (strong), and averaged 1.5 (minimal-moderate). *See* App. 8, at 12-13; App. 1, Appx. AB, at 383, Table 3; App. 64, n. 63. Mr. Hecklau acknowledged that an “appreciable contrast” (scores between 2.5 and 3.5) was noted for two out of eight key observation points. *See* App. 8, at 13; App. 1, 64. He claims, however, that low contrast ratings for the majority of the viewpoints indicate that this effect is tempered by the presence of the existing transmission

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<sup>11</sup> The 13 scenic resources that, according to Mr. Hecklau, may be impacted by the Project include the Apple Way Scenic Byway, Route 28 Scenic Drive, Granite State Rail Trail (a/k/a Londonderry Rail Trail), Londonderry Scenic Views #1, 14, and 17, Peabody Town Forest, Leslie C. Bockes memorial Forest, Musquash Conservation Area, Centennial Park/West Road Fields, Londonderry Town Center and Public Schools, George M. Muldoon Park and Town Forest and Robinson Pond Park. *See* App. 8, at 11; App. 1, Appx. AB, at 43.

infrastructure. *See* App. 8, at 13-14; App. 1, at 64. Mr. Hecklau concluded that at the locations where the Project will be visible, the “overall visual impact will be minimal.” *See* App. 8, at 14.

In some locations, construction of the Project will result in a substantially wider cleared right-of-way with an increased visibility of both existing and proposed transmission lines. Mr. Hecklau admitted that “it is likely that scenic quality and viewer enjoyment of the view will be diminished to some extent.” *See* App. 8, at 14-15; Tr., 06/13/2016, Afternoon Session, at 56. Mr. Hecklau admitted he did not analyze the effect of the Project on privately owned properties. Tr., 06/13/2016, Afternoon Session, at 56, 59, 85. According to Mr. Hecklau, Transmission Pole Structure #200, will be visible to people walking or commuting on David Drive. Tr., 06/13/2016, Afternoon Session, at 63. He also acknowledged that views from at least two residences located on David Drive, five residences located on Lenny Lane and Kienia Road, a number of houses located near Howard Brook, four houses on Jason Drive<sup>12</sup> and one additional house on Mayflower Drive will be impacted due to tree clearing associated with construction and operation of the Project. Tr., 06/13/2016, Afternoon Session, at 64-66, 69-71, 77-81. He concluded, however, that the Project will not have an unreasonable adverse effect on aesthetics. *See* App. 8; App. 1, Appx. AB, at 93.

*ii. Counsel for the Public and Ms. Huard*

Counsel for the Public acknowledges the VIA and its conclusions. *See* App. 24, ¶¶10-16. Counsel for the Public also acknowledges the Applicant’s commitment to mitigate and minimize effects of the Project on aesthetics. *See* App. 24, ¶¶10-16.

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<sup>12</sup> It is noted that the Applicant’s witness, David Plante, testified that the Applicant reached out to the owners of the properties located at Jason Drive and Shadow Ridged Road and developed mitigation plans that will decrease the effect of the Project on views from these properties. Tr., 06/13/2016, Afternoon Session, at 100-104. These plans were approved by the owners of the properties. Tr., 06/13/2016, Afternoon Session, at 100-104.

Ms. Huard argues that the Project “will have a gross and unreasonable effect on the aesthetics of a greater amount of people than the Applicants’ experts have considered and concluded.” *See* Huard 52, at 4. In support, Ms. Huard asserts that up to three additional structures that the Applicant seeks to construct will be visible from her property. *See* Huard 52, at 4. In addition, she argues that construction of the Project and associated tree clearing will cause the Project to be visible from a variety of locations, *i.e.* David Drive and other areas where Ms. Huard commutes to and walks. *See* Huard 52, at 4. Ms. Huard did not present any additional evidence or studies regarding the impact of the Project on aesthetics.

*b. Subcommittee Deliberations*

The Applicant, in its VIA and through the testimony of Mr. Hecklau, demonstrated that the Project will impact 10 potential scenic resources with the effect ranging from 0.2 to 3.2 on the scale of 0 (insignificant) to 4 (strong), and averaging 1.5 (minimal-moderate). While Ms. Huard provided her personal opinions about the aesthetic impacts of the Project, her opinion is insufficient for us to reject the systematic analysis contained in the VIA and explained by Mr. Hecklau. Considering the overall size of the Project and the fact that it will be constructed completely within an existing and occupied right-of-way, we find that the Project’s effect on scenic resources will not be unreasonable. It is undisputed that the Project and associated tree clearing will have an adverse effect on the views for some residences. The Applicant indicates that it has proactively addressed complaints that it received from a number of residents by agreeing to implement mitigation measures. The Applicant further testified about its willingness and commitment to work with other residents in order to mitigate the effect of the Project on views from those residences. We encourage the Applicant to continue those efforts. Considering the foregoing and considering that only a limited number of the residences that will be impacted

by the Project, we find that the Project will not have an unreasonable adverse effect on aesthetics of the region.

## **2. Historic Sites**

In determining whether a proposed energy facility will have an unreasonable adverse effect on historic sites, the Subcommittee is required to consider the following factors:

- (1) all of the historic sites and archaeological resources potentially affected by the proposed facility and any anticipated potential adverse effects on such sites and resources;
- (2) the number and significance of any adversely affected historic sites and archeological resources, taking into consideration the size, scale, and nature of the proposed facility;
- (3) the extent, nature, and duration of the potential adverse effects on historic sites and archeological resources;
- (4) findings and determinations by the New Hampshire Division of Historical Resources of the Department of Cultural Resources and, if applicable, the lead federal agency, of the proposed facility's effects on historic sites as determined under Section 106 of the National Historic Preservation Act, 54 U.S.C. § 306108, or RSA 227-C:9; and
- (5) the effectiveness of the measures proposed by the applicant to avoid, minimize, or mitigate unreasonable adverse effects on historic sites and archaeological resources, and the extent to which such measures represent best practical measures.

See N. H. CODE OF ADMIN. RULES, Site 301.14 (b)(1)-(5).

### *a. Positions of the Parties*

The Applicant asserts that the Project will not have an unreasonable adverse effect on historic archaeological and architectural resources. App. 1, at 66.

Stephen A. Olausen, in his pre-filed testimony, asserted that the Project study area (one-quarter of a mile from either side of the Project's centerline) does not contain any properties that

are listed or determined eligible for listing in the State or National Register of Historic Places. App. 11, at 4. This site visit revealed that there is one potentially significant historic property within the study area – the farmstead at Ellwood Orchard in Londonderry. App. 11, at 5. Mr. Olausen opined, however, that the Project will have no adverse effect on the farmstead because the view to and from the Project has already been compromised by the pre-existing transmission line structures in the adjacent transmission right-of-way. App. 11, at 6. He concluded that the Project will not have an adverse effect on the architectural resources of the region. App. 11, at 6. DHR concurred and concluded that the Project has no potential to affect historic architectural resources. *See Correspondence from the DHR (Sept. 8, 2015), at 2.*

The Applicant also studied archeological resources. Dianna L. Doucette determined that no archeological study of Segments 3 and 4 is needed because a Phase IA archeological survey and DHR review of these portions of the Project was previously conducted in 2011 and the Project received a determination of no effect from DHR. App. 12, at 4-5; App. 1, Appx. L. As to Segment 2, DHR concluded that the Project, “under state and federal regulations, will have no effects on historic resources.” *See Correspondence from DHR (May 9, 2016).* DHR requested that the Applicant provide changes and/or work modifications to DHR “if there are any changes in approved plans and specifications, or there is a need for additional work.” *See Correspondence from DHR (May 9, 2016).*

*b. Subcommittee Deliberations*

Considering the correspondence and findings of “no effect” made by DHR, and conditions of the Certificate that are set forth in Section B(4) of this Decision, we find that the Project will have no unreasonable adverse effect on historic or archaeological sites.

### **3. Air and Water Quality**

#### *a. Air Quality*

In determining whether the Project will have an unreasonable adverse effect on air quality, the Subcommittee is required to consider the determinations of DES with respect to applications or permits required for the construction and operation of the Project and other relevant evidence submitted and accepted by the Subcommittee. *See N.H. CODE OF ADMIN. RULES, Site 301.14 (c).*

##### *i. Positions of the Parties*

The Applicant asserts that operation of the Project will not have any permanent impact on air quality and the Project does not require an air permit. The Applicant recognizes that during construction of the Project, the Project may have temporary adverse effects on air quality, primarily from fugitive dust. App. 1, at 67; App. 9, at 12. The Applicant claims that the potential fugitive dust will be controlled in accordance with conditions of the NPDES CGP (Section 2.1.2.5 Minimize Dust). App. 1, at 67. Generation of the dust will also be minimized through the application of water or other approved dust suppression techniques. App. 1, at 67.

Counsel for the Public stipulates that the Project “will solely be used to transmit electricity” and will not “involve the installation of any equipment that combust fuels or emit any regulated pollutants.” *See App. 23, ¶30.*

Ms. Huard argues that the Project will have an unreasonable adverse effect on air quality. *See Huard 52, at 6-7.* Ms. Huard submits that the brown self-weathering steel that the Applicant seeks to utilize will rust and, as a result, will emit “patina” in the air causing significant contamination of air in the region. *See Huard 52, at 6-7.* Ms. Huard further argues that air quality will be adversely impacted as a result of tree removal associated with construction and operation

of the Project. *See* Huard 52, at 7. Ms. Huard did not present expert testimony to support her claims.

The Applicant’s witnesses addressed Ms. Huard’s concerns during the adjudicatory hearing. They testified that patina will be formed on the Project’s structures prior to their installation within the right-of-way. Tr., 06/13/16, Morning Session, at 59-60. They further testified that, once the protective layer of patina is formed, the curing process stops. Tr., 06/13/16, Morning Session, at 59-60. In addition, the experts testified that the Project’s structures will be supplied with a “corrosion collar” – a quarter-inch thick additional layer of steel that is applied where the ground line of the structures will be located. Tr., 06/13/16, Morning Session, at 61-62. In addition, in order to prevent additional corrosion at the ground line of the steel pole structures, all direct embedded structures will be coated with a mastic coating. Tr., 06/13/16, Morning Session, at 62.

In response to Ms. Huard’s concerns about the impact of tree clearing on air quality, the Applicant’s witness, Ms. Trefry, admitted that “large deforestation, on a global scale, can contribute to increasing carbon in the atmosphere.” Tr., 06/13/16, Morning Session, at 42. She testified that tree removal associated with the construction and operation of the Project will not materially increase global deterioration and will not have an unreasonable adverse effect on air quality. Tr., 06/14/16, Morning Session, at 42.

*ii. Subcommittee Deliberations*

The Subcommittee was not persuaded by Ms. Huard’s claims that patina formation will affect air quality or that tree clearing for the Project amounts to deforestation that will affect air quality. Ms. Huard’s claims were sufficiently rebutted by the testimony of the Applicant’s witnesses. The amount of tree clearing that is required for the Project is not so great that it

contributes in any material way to a large-scale air quality deforestation. Notably, the transmission line that is proposed, and the Project in general, does not involve any equipment that will combust fuels or emit air pollutants. Neither the construction, nor the operation of the Project, requires an air permit under any statute or other regulatory authority.

During construction, the Applicant will use best management practices to minimize fugitive dust emission. In order to assure best practices, the Application requires the construction contractor to comply with NPDES CGP §2.1.2.5.

We find that the siting, construction and operation of the Project, as proposed in the Application, will not have an unreasonable adverse impact on air quality.

*b. Water Quality*

In determining whether the Project will have an unreasonable adverse effect on water quality, the Subcommittee is required to consider the determinations of DES, the United States Army Corps of Engineers, and other state or federal agencies having permitting or other regulatory authority under state or federal law to regulate any aspect of the construction or operation of the Project, with respect to applications and permits required for the construction and operation of the Project and other relevant evidence submitted and accepted by the Subcommittee. *See N. H. CODE OF ADMIN. RULES, Site 301.14 (d).*

*i. Positions of the Parties*

The Applicant asserts that the Project will cause some impacts to state jurisdictional wetlands, surface waters, and protected shoreland areas. App. 1, at 67. The Applicant concludes, however, that the Project will not have an unreasonable adverse impact on water quality. App. 9, at 12.

The Applicant asserts that the Project qualifies for a General Permit by Rule in accordance with the N. H. CODE OF ADMIN. RULES, Env-Wq 1503.03. App. 1, at 67; App. 9, at 5.

The Applicant filed an Alteration of Terrain Permit Application with the Subcommittee “for informational purposes” to facilitate a jurisdictional determination by DES. App. 1, at 67; Appx. O; App. 9, at 5.

The majority of the Project is not within protected shoreland areas. However, the Applicant will not be able to avoid impact to the protected shoreland of waterways in two locations in Windham and Hudson, where four transmission utility structures are proposed within the protected shoreland of Beaver Brook. App. 1, at 72-73. The Applicant asserts that construction of the Project will result in approximately 105 sq. ft. of permanent shoreland impact and approximately 35,107 sq. ft. of temporary shoreland impact. App. 1, at 73. In addition, it will cause approximately 12,891 sq. ft. of vegetation clearing in shoreland areas. App. 1, at 73. The Applicant relies on RSA 483-B:9, IV-b, for the proposition that mitigation for permitted impacts to the protected shoreland is not required from a public utility. App. 1, at 74.

The Applicant identified the following impact that construction and operation of the Project will have on wetlands:

- Permanent wetland impact – 4,428 sq. ft. (.1 acre);
- Temporary wetland impact – 385,396 sq. ft. (8.86 acres);
- Temporary stream impact – 6,365 sq. ft. (.15 acre); and
- Permanent stream impact – 80 sq. ft. (17 linear feet).

App. 1, at 69, Table 8; App. 9, at 57-8; App. 20, at 70; Tr., 6/14/16, Morning Session, at 21-22.

The Applicant claims that in order to accommodate the installation of a 3-pole Structure 253, along the 3124 Line in Londonderry, it will have to realign the western portion of the single intermittent stream channel. App. 1, at 69. The proposed channel realignment will be located within the right-of-way approximately 1,200 feet east of High Range Road. App. 1, at 69.

The Applicant also asserts that Structure 253 will be partially located within the wetland created by the small channels that run from a small channel that originates at the drainage area located to the east of High Range Road. App. 1, at 69. The Applicant submits that the western end of the stream channel will be realigned to the north around the center pole of Structure 253. App. 1, at 69-70. The Applicant asserts that velocities in the channel from the realignment will be less than 2 feet per second. App. 1, at 70.

The Applicant believes that it has designed the Project in a fashion to minimize and avoid impacts on wetlands. App. 1, at 71. To the extent that wetland impacts occur, the Applicant proposes mitigation in the form of in-kind mitigation (upland buffer preservation) and/or an “in-lieu fee” contribution to the Aquatic Resource Mitigation Fund. App. 1, at 72.

The Applicant requested that each of the affected towns and regional land trusts and conservation groups propose in-kind mitigation for evaluation. At the time of Application, the Applicant was evaluating upland buffer mitigation projects proposed by the Towns of Pelham and Londonderry. The Town of Windham advised the Applicant that it was unable to identify a suitable in-kind mitigation proposal. The Town of Hudson did not respond to the Applicant’s request. App. 1 at 72.

The Applicant’s expert, Ms. Trefry, asserted in her pre-filed testimony that “[n]one of the Project impacts are expected to alter the hydrology of wetlands (i.e., no inflow/outflow) restrictions along the Project right-of-way and, therefore, will not significantly impact water quality and hydrologic functions (groundwater recharge/discharge, floodflow alteration, or sediment and nutrient retention) which are performed by these wetlands.” App. 9, at 8. Ms. Trefry did acknowledge that some temporary impacts to the wildlife habitat value of the Project right-of-way wetlands will take place during construction of the Project. App. 9, at 8. Ms. Trefry

also recognized that tree clearing associated with construction of the Project will have some effect on water quality. App. 9, at 9; App. 74. The Applicant identified the following streams that may be affected by tree clearing within 100-feet of a perennial stream channel and 50-feet of an intermittent stream channel:

- **Segment 2:** It intersects seven perennial streams and eight intermittent streams located in Pelham and Windham (including Beaver Brook). App. 75-76. The Applicant asserts that the Project will require 15,832 sq. ft. or .36 acres of tree clearing, including, but not limited to: (i) 4,800 sq. ft. associated with an intermittent tributary to Tonys Brook at the southernmost end of the Segment; (ii) 2,759 sq. ft. associated with Beaver Brook near Winter Street and Glance Road in Windham; and (iii) 1,658 sq. ft. at the crossing of the right-of-way with Beaver Brook near the Windham and Hudson town boundary. App. 1, at 75-76;
- **Segment 3:** It intersects four perennial streams (including Chase Brook and Nesenkeag Brook) and six intermittent streams. App. 1, at 76. The Applicant asserts that the Project will require 2.96 acres of tree clearing, including, but not limited to: (i) 28,901 sq. ft. or 0.66 acres of clearing associated with tributary to Robinson Pond; (ii) 16,890 sq. ft. or 0.39 acres associated with Chase Brook; (iii) 10,845 sq. ft. or 0.24 acres within the stream buffer associated with Nesenkeag Brook; and (iv) 26,151 sq. ft. or 0.6 acres along Howard Brook. App. 1, at 76.
- **Segment 4:** It intersects two perennial and six intermittent streams. Stream buffer clearing in this Segment will be approximately 1.19 acres consisting of clearing associated with intermittent streams and approximately 4,410 sq. ft. of clearing around the Beaver Brook crossing near the Scobie Pond 345 kV Substation. App. 1, at 77.

The Applicant claims, however, that the proposed tree clearing will have no discernable effects on water quality or water temperatures in the intermittent or perennial streams. App. 1, at 74. The Applicant concludes that the Project will not have an unreasonable adverse effect on water quality. App. 1, at 78.

Ms. Huard asserts that the Project will have an unreasonable adverse effect on water quality. *See* Huard 52, at 6-8. Ms. Huard argues that the Project will emit “patina” in the water. *See* Huard 52, at 6-7. Ms. Huard also argues that construction of the Project will have a significant effect on water because the Applicant seeks to cross a number of wetlands and

surface waters and to remove a number of trees. *See* Huard 52, at 8. Finally, Ms. Huard argues that the removal of trees may cause overflow of wetlands and surface waters. *See* Huard 52, at 8. Ms. Huard did not present expert testimony to support her assertions.

The Applicant's witnesses addressed Ms. Huard's concerns. Ms. Trefry testified that it is true that self-weathering steel becomes coated over time with oxidized iron which provides a barrier to the steel underneath. Tr., 06/14/16, Morning Session, at 32. She further testified that there is a potential for some of the oxidized iron to leach down the pole and become soluble. Tr., 06/14/16, Morning Session, at 32. It may result in staining of the pole. Tr., 06/14/16, Morning Session, at 32. Ms. Trefry testified, however, that leached oxidized iron will have no detrimental impact on water and air quality, plants and animals. Tr., 06/14/16, Morning Session, at 32, 34. Ms. Trefry further testified that tree removal associated with construction and operation of the Project will not have an unreasonable adverse effect on the environment because it will be limited and will be conducted within the existing right-of-way. Tr., 06/14/16, Morning Session, at 35.

*ii. Subcommittee Deliberations*

Having considered the testimony of all witnesses, exhibits, and taking into account the comprehensive process employed by DES in its issuance of a Wetlands Permit, Alteration of Terrain Permit, and Shoreland Permit, we find that the Project will not have an unreasonable adverse effect on water quality. Each of the aforementioned permits addresses the impact of the Project on wetlands, surface water quality, and shoreland. The permits contain conditions and mitigation measures that ensure that the Project will not have an unreasonable adverse effect on water resources. The permits and all of the conditions contained therein shall become a condition of the Certificate. DES is hereby delegated the authority to monitor construction and operation of

the Project and its compliance with conditions of the Certificate and with all laws and regulations pertaining to the permits that it has issued. The Department of Environmental Services is hereby delegated the authority to specify the use of any technique, methodology, practice or procedure as may be necessary to effectuate the provisions contained in the permits and in this Certificate. However, any action to enforce the provisions of the Certificate must be brought before the Site Evaluation Committee. *See RSA 162-H:4, I (d).* In the event that DES finds that any proposed modification of the Project impacts matters that are outside of its jurisdictional authority, it shall immediately notify the Administrator for the Committee.

#### **4. Natural Environment**

When determining whether construction and operation of the Project will have an unreasonable adverse effect on the natural environment, the Subcommittee is required to consider the Project's effect on wildlife species, rare plants, rare natural communities, and other exemplary natural communities. *See N.H. CODE OF ADMIN. RULES, Site 301.14 (e).* The Subcommittee also must consider the following:

- (1) the significance of the affected resident and migratory fish and wildlife species, rare plants, rare natural communities, and other exemplary natural communities, including the size, prevalence, dispersal, migration, and viability of the populations in or using the area;
- (2) the nature, extent, and duration of the potential effects on the affected resident and migratory fish and wildlife species, rare plants, rare natural communities, and other exemplary natural communities;
- (3) the nature, extent, and duration of the potential fragmentation or other alteration of terrestrial or aquatic significant habitat resources or migration corridors;
- (4) the analyses and recommendations, if any, of the Department of Fish and Game, the Natural Heritage Bureau, the United States Fish and Wildlife Service, and other agencies authorized

to identify and manage significant wildlife species, rare plants, rare natural communities, and other exemplary natural communities;

- (5) the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate potential adverse effects on the affected wildlife species, rare plants, rare natural communities, and other exemplary natural communities, and the extent to which such measures represent best practical measures;
- (6) the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate potential adverse effects on terrestrial or aquatic significant habitat resources, and the extent to which such measures represent best practical measures; and
- (7) whether conditions should be included in the certificate for post-construction monitoring and reporting and for adaptive management to address potential adverse effects that cannot reliably be predicted at the time of application.

*See N.H. CODE ADMIN. RULES, Site 301.14 (e)(1)-(7).*

*a. Positions of the Parties*

The Applicant asserts that the Project will not have an unreasonable adverse effect on the natural environment of the region. App. 10, at 10. In total, 71.2 acres of forested land, including 10.9 acres of wetlands, will need to be cleared for the construction of the Project.<sup>13</sup> App. 1, at 79. Construction of the new 345 kV line and relocation of the Y-151 line in the right-of-way will require expansion of the existing cleared areas into undeveloped forested portions of the right-of-way. App. 1, at 79. This newly cleared area will be permanently converted to shrub and emergent plant communities. App. 1, at 79. The Applicant asserts that tree clearing and associated impacts on vegetation cannot be avoided. App. 1, at 80. The Applicant argues, however, that “significant” adverse impacts are not expected based on the location of the areas proposed to be cleared relative to the surrounding landscapes. App. 1, at 80.

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<sup>13</sup> 90-foot forested portion along the eastern portion of the right-of-way in Segment 2; 50-foot forested strip in the middle of the right-of-way in Segment 4; additional clearing southwest of the Scobie Pond Substation. App. 1, at 79.

In response to the Applicant's inquiries, the Fish and Game Department identified several habitat types within the Site: (i) Appalachian oak-pine forest (Segments 2, 3, and 4); (ii) grasslands (Segments 2, 3, and 4); (iii) hemlock-hardwood-pine (Segments 2, 3, and 4); (iv) peatland (Segment 4); (v) rocky ridge or talus slope (Segment 2); and (vi) wet meadow/shrub wetland (Segments 2, 3, and 4). App. 1, at 81; App. 1, Table 10.

The Applicant also identified the following wildlife species associated with each habitat type: (i) Appalachian oak-pine forest – Whip-Poor-Wills, American black bears; (ii) grasslands – state-listed species of concern: wood turtles, butterflies, state-listed endangered eastern hognose snake and Northern Harrier, Upland Sandpiper, and the state threatened Grasshopper Sparrow; (iii) hemlock-hardwood-pine – Cerulean Warbler, Tri-colored bat, bobcat, Northern Goshawk, and American black bear; (iv) peatland – state endangered ringed boghaunter and northern bog lemming; (v) rocky ridge or talus slope – bobcat, state-listed endangered timber rattlesnake, state-listed endangered eastern small-footed bats, and state-listed threatened Peregrine Falcon; and (vi) wet meadow/shrub wetland – Red-winged Blackbirds, North American beavers, painted turtles, state-listed endangered Blanding's turtles, New England cottontails, Northern Harriers, ringed boghaunters, sedge wrens, state-listed threatened spotted turtles, and Pied-billed Grebes. App. 1, at 81-83.

The Applicant acknowledges that construction of the Project may impact habitats and associated wildlife species. As part of the Project, the Applicant will trim trees along the right-of-way and clear a 90-foot forested portion within the east edge of the right-of-way. App. 1, at 84-85. The Applicant will also clear and convert the 50-foot wide forested area to maintained grassland within the middle of Segment 4. App. 1, at 84-85. The Applicant asserts, however, that the existing right-of-way was constructed and has been maintained for many years. App. 1, at 84.

The impacts of the Project on wildlife resources will be minor “as compared to construction of a new right-of-way through undeveloped land.” App. 1, at 84.

The Applicant also acknowledges that the Project will impact rare, threatened, and endangered animal species. The Applicant identified the following species of concern: (i) brook floater (endangered); (ii) northern black racer and eastern hognose snakes (threatened); (iii) Blanding’s turtle and spotted turtle; (iv) New England Cottontail; and (v) northern long-eared bat. App. 1, at 87-89.

The Applicant filed the results of its 2015 rare, threatened, and endangered animal species survey (“MVRP – Black Racer Collector Permit, Turtle Survey Results and other Observed Rare Species Observations”) with the Subcommittee on December 31, 2015. *See* App. 20, Appx. F-1, Attachment D (CONFIDENTIAL). The Applicant’s expert further testified that during 2015, the Applicant conducted black racer surveys and was not able to locate any black racers. Tr., 06/14/16, Morning Session, at 24. In the spring of 2016, the Applicant conducted an additional survey and was able to locate one snake and one of its dens. Tr., 06/14/16, Morning Session, at 24. The snake was radio tagged but later died when it fell prey. Tr., 06/14/16, Morning Session, at 24. Tr., 06/14/16, Morning Session, at 24. The Applicant also intends to conduct surveys of turtle nesting habitats in the spring of 2017. Tr., 06/14/16, Morning Session, at 26-27.

The Applicant conducted certain wildlife surveys for certain threatened or endangered species. These reports from the wildlife surveys were received confidentially by the Subcommittee and are not available for public review. *See* RSA 271-A:2, 3. To the extent that the species identified in the confidential filing exists within the Project area, the Applicant shall monitor the area and conduct an additional survey in the spring of 2017.

The Applicant provided information indicating that the Project will not impact known roost trees or the population of the northern long-eared bat. App. 1, at 88. The Applicant filed a “Northern Long-Eared Bat Acoustic Survey Report,” reporting that an acoustic bat survey conducted in the summer of 2015, found that none of the suspected bat calls detected over the 15.4 kilometers of suitable summer habitat could be attributed to the northern long-eared bat. App. 1, at 88.

The Applicant further asserts that New Hampshire Fish & Game has not expressed “specific concerns” regarding the impact of the Project on the New England cottontail. App. 1, at 88. The Applicant intends, however, to conduct a cottontail survey in the winter of 2017. Tr., 06/14/16, Morning Session, at 27.

The Applicant asserts that additional surveys and mitigation measures will minimize and mitigate the effect of the Project on endangered species. App. 1, at 88. The Applicant will advise field personnel of the potential presence and protected status of the northern black racer and eastern hog-nose snakes. App. 1, at 88. In addition, best management practices will be implemented during construction of the Project. App. 1, at 88.

The Applicant filed a “Rare Plant Survey – 2015 Results – Mitigation Recommendations” with the Subcommittee. *See* App. 20, Appx. F-1, Attachment D (CONFIDENTIAL). The Applicant asserts that it is working with the Natural Heritage Bureau to update survey plans and develop a mitigation mechanism that will be put in place. Tr., 06/14/16, Morning Session, at 25.

The Applicant asserts that the Project will not permanently impact fish in perennial streams or open water habitats. App. 1, at 85. As to the impact during construction, the Applicant asserts that streams will be bridged with swamp mats to maintain hydrology and limit impacts to

fisheries. App. 1, at 85. The Applicant further asserts that there are 17 vernal pools within the Project and that such pools may be affected as a result of the clearing associated with the Project. App. 1, at 86. The Applicant asserts, however, that such impact will be mitigated. App. 1, at 86.

Ms. Huard argues that the Project will have an unreasonable adverse effect on the natural environment. *See* Huard 52, at 2-3. Ms. Huard asserts that “[t]here is a risk that wildlife will be disturbed, frightened, leave and not return,” as a result of construction and operation of the Project. *See* Huard 52, at 2. Ms. Huard also claims that the Applicant seeks to remove a large amount of natural forests in Londonderry. *See* Huard 52, at 2. She argues that it will change the natural environment and will cause wild animals to permanently migrate to other areas and, potentially, cause overpopulation in other areas. *See* Huard 52, at 2. Ms. Huard did not present expert testimony to establish her concerns or to prove that the forest clearing necessary for the Project will be so extensive so as to result in the permanent migration of wildlife.

*b. Subcommittee Deliberations*

We note that the Applicant seeks to construct the Project within a currently existing right-of-way. Tree clearing that will be required for construction and operation of the Project and will have some impact on the natural environment. Considering, however, that construction will be conducted within the existing right-of-way and tree clearing will be conducted only where required, the impact of tree clearing will not be unreasonable. The Applicant, as part of the Application, has agreed to monitor areas of identified turtle nesting sites prior to construction of the Project and in the Spring of 2017. In addition, New Hampshire Fish & Game has not expressed concerns regarding the impact of the Project on the New England cottontail and the Applicant indicated that it will conduct a cottontail survey in the winter of 2017. The Project will not impact known roost trees or the population of the northern long-eared bat. The Applicant will

advise field personnel of the potential presence and the protected status of the Northern black racer and the hognose snake. As to flora species, the Applicant agreed to continue to work with the Natural Heritage Bureau to update survey plans and develop mitigation mechanisms. As of the date of the hearing, the Applicant has already mitigated the impact of the Project on rare plants by relocating one structure and agreed to also mitigate any potential effects by agreeing to employ an environmental monitor to ensure environmental compliance of the Project, requiring all construction personnel to attend a training session designed to educate them about concerns regarding these species, installing high visibility fencing by designing work areas with timber mats that straddle them and to minimize the degree of ground disturbance and, if required, by transplanting rare plants to suitable locations on the right-of-way.

Considering the limited effect of the Project on the natural environment and mitigation measures agreed to by the Applicant, we find that the Project will not have an unreasonable adverse effect on the natural environment of the region.

## **5. Public Health and Safety**

In determining whether the Project will have an unreasonable adverse effect on public health and safety, the Subcommittee must consider: (i) the potential adverse effects of construction and operation of the Project on public health and safety; (ii) the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate such potential adverse effects; and (iii) the extent to which such measures represent best practical measures. *See N.H. CODE ADMIN. RULES, Site 301.14 (f)(1).* In addition, as to electric transmission lines, the Subcommittee must consider: (i) the proximity and use of buildings, property lines, and public roads; (ii) the risks of collapse of towers, poles, or other supporting structures; (iii) the potential impacts on public health and safety of electric and magnetic fields generated by the proposed

facility; and (iv) the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate such potential adverse effects, and the extent to which such measures represent best practical measures. *See N. H. CODE OF ADMIN. RULES*, Site 301.14 (f)(4).

*a. Positions of the Parties*

The Applicant asserts that, prior to the construction of the Project, it will develop and implement a project health and safety plan for all aspects of construction and will hire and retain qualified workers and contractors to construct the Project. App. 1, at 89. During the operation of the Project, the Applicant will adhere to company procedures and ISO-NE, state, and federal regulations relating to safe operation of the lines. App. 1, at 89.

*i. Electric and Magnetic Fields*

The Applicant retained Dr. William H. Bailey of Exponent, Inc. to model electric and magnetic field levels associated with the Project, and to assess literature on the impact of electric and magnetic fields on health.<sup>14</sup> App. 1, at 90. Dr. Bailey's assessment of the literature is summarized in the report titled: "Current Status of Research on Extremely Low Frequency Electric and Magnetic Fields and Health," that was filed with the Subcommittee as Appendix AF. *See* App. 1, Appx. AF. Dr. Bailey testified that on its website, that the World Health Organization states that: "[b]ased on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences for exposure to low level electromagnetic fields." App. 13, at 12. He also reports that the U.S. National Institute on Environmental Health, the IARC, the National Radiological Protection Board of the United Kingdom, the World Health Organization, ICNIRP, and the

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<sup>14</sup> Electric fields are the result of voltage applied to electrical conductors and equipment. App. 89, n.72. Magnetic fields are produced by the flow of electric currents. App. 89, n. 73. Magnetic field levels depend on characteristics of the source, including the arrangement of conductors, the amount of current flow through the source, and its distance from the point of measurement. App. 89, n. 73.

Scientific Committee on Emerging and Newly Identified Health Risks concluded that “the evidence, overall, does not suggest the existence of any adverse long-term effects in association with environmental exposure to EMF below scientifically-established exposure guidelines.”

App. 13, at 12. Generally, as a result of its analyses, Dr. Bailey concluded the following:

Recent studies when considered in context of previous research do not provide evidence to alter the conclusion that [Extremely Low Frequency Electric and Magnetic Fields] exposure at the levels we encounter in our everyday environment including transmission lines is not a cause of cancer or any other disease process.

App. 1, Appx. AF, at 54; App. 13, at 13.

Dr. Bailey acknowledged that some studies and literature suggest that exposure to electro-magnetic fields can have long-term effects. App. 13, at 11. Dr. Bailey asserted, however, that such individual studies may be subject to chance variation, potential biases, and confounding due to limitations on study design, conduct of the study, or interpretation of the results. App. 13, at 11. Consequently, he concluded that such studies are not scientifically valid and cannot be relied upon. App. 13, at 11.

Dr. Bailey’s findings relating to the assessment of the electric and magnetic fields prior to and after construction of the Project were provided to the Subcommittee in a report titled: “Electric Field, Magnetic Field, Audible Noise and Radio Noise Modeling in New Hampshire.”

App. 1, Appx. AG. According to the report, magnetic fields at annual average load levels at the edge of the right-of-way range from 3.1 mG to 29 mG prior to the construction of the Project and are predicted to range from 4.5 mG to 24 mG after the Project is placed in service. App. 1, Table 12. The electric field levels, at average conductor height, will range from 0.1 kV/m to 1.3 kV/m prior to the construction of the Project and after the Project is placed in service. App. 1, Table 13.

Dr. Bailey opined that such levels are significantly below basic restrictions for public exposure

to electric and magnetic fields set forth by the International Committee on Electromagnetic Safety (electric field – 26.8 kV/m; magnetic field – 9,150 mG) and by the International Commission on Non-Ionizing Radiation Protection (electric field – 36.4 kV/m; magnetic field – 12,400 mG). Tr., 06/14/2016, Afternoon Session, at 93-95; App. 1, Table 14, App. 13, at 9-10.

Ultimately, Dr. Bailey opined, to a reasonable degree of scientific certainty, that the electro-magnetic field associated with the operation of the Project will not be harmful to human health and, therefore, will not result in an unreasonable effect on public health and safety. App. 13, at 14-15.

Ms. Huard argues that the Project will have an unreasonable adverse effect on health. *See* Pre-Filed Testimony, Margaret Huard, at 4-5. In support, Ms. Huard states that a number of people living in proximity to the existing lines have died. *See* Pre-Filed Testimony, Margaret Huard, at 4-5. She also claims that she suffered health issues while being in close proximity to the existing power lines including: (i) a “small shock” in 2009/2010; (ii) “significant pain and sensitivity from head to toe” after the removal of the pole within the right-of-way in 2012/2013; and (iii) “symptoms that often precede cardiac arrest” when she was taking pictures of existing structures in January, 2016. *See* Ms. Huard, Pre-Filed Testimony, Amended Page 5.

Counsel for the Public advised the Subcommittee that he found the testimony and reports of the Applicant’s experts persuasive and stated that electric and magnetic fields that will be associated with the Project will not have an unreasonable adverse effect on health and safety. Tr., 06/14/2016, Afternoon Session, at 169-170. However, to confirm that modeling results adequately predicted levels of electric and magnetic fields associated with the Project, Counsel for the Public asked the Subcommittee to condition the Certificate and require the Applicant: (i) to conduct field testing of the electric and magnetic fields strength at representative sampling of

locations along the Project following construction and energizing of the Project; and (ii) to provide results of the testing to the Committee for the Committee's review. Tr., 06/14/2016, Afternoon Session, at 169-170.

*ii. Sound*

The Applicant's expert, Gary B. Johnson, identified two types of noise associated with the operation of transmission lines: (i) audible noise (AN); and (ii) radio noise. App. 1, Appx. AG, at 15-16.

The Project will release audible noise when the electric field on a localized portion of the conductor surface exceeds the breakdown strength of air<sup>15</sup> in a process known as corona. App. 1, at 92; App. 14, at 4; App. 1, Appx. AG, at 11-12. Audible noise is a direct result of corona and is experienced as a hissing, crackling sound that may be accompanied by a 120-Hz hum. App. 1, at 92; App. 14, at 7. The Environmental Protection Agency has established a guideline of 55 dBA for annual average day-night level (Ldn) in outdoor areas for audible noise. App. Appx. AG, at 16. In computing this value, a 10-dB correction (penalty) is added to nighttime noise between 10:00 PM and 7:00 AM. App. 1, Appx. AG, at 16.

Dr. Johnson testified that, considering that the Project has not been constructed yet, he could not measure the actual sound levels of the Project. Tr., 06/14/2016, Afternoon Session, at 46-47. Instead, he modeled the audible sound levels that will be attributable to corona along the Project right-of-way, upon completion of construction of the Project. App. 1, Appx. AG. As a result, Dr. Johnson concluded that the maximum increase in audible noise will be approximately 2 dB, but lower (e.g., 0-1 db) in most locations. App. Appx. AG, at 26-27. Dr. Johnson further opined that the "increase in AN due to the contribution of the transmission line noise would be

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<sup>15</sup> The electrical-field strength at which air begins to conduct current. App. 92

masked by the ambient noise and would not produce a noticeable difference.” App. 1, Appx. AG, at 27.

Dr. Johnson testified that there are no regulations related to radio noise from transmission lines or related facilities in New Hampshire or on a federal level. App. 1, Appx. AG, at 16. The IEEE Radio Noise Design Guide (IEEE, 1971), however, references a 61 dB $\mu$ V/m level, measured at a frequency of 500 kHz and at a distance of 50 feet from the outside conductor as acceptable for other transmission lines. App. 1, Appx. AG, at 16. As a result of his analyses, Dr. Johnson concluded that the Project’s radio noise level at a distance of 50 feet from the outside conductor will be approximately 44 dB $\mu$ V/m for both pre-construction and post-construction configurations. App. 1, Appx. AG, at 27. He further noted that in foul weather, radio noise from the lines would be approximately 17 dB higher. App. 1, Appx. AG, at 27. He concluded that noise associated with the operation of the Project will not have an unreasonable adverse effect on health. App. 1, Appx. AG. This testimony was uncontroverted.

*iii. Traffic Safety*

The Applicant reports that during construction of the Project, all traffic controls will be in accordance with the 2009 edition of the Manual on Uniform Control Devices and DOT policies. App. 1, at 93. The Applicant identified 37 road crossings, including a single crossing of I-93, 7 other State-maintained crossings, and 29 locally-maintained crossings. App. 1, at 93. The Applicant asserts that it has submitted all required permit applications to DOT, and will ensure traffic control in accordance with requirements of DOT during construction of the Project over State-maintained crossings. App. 1, at 93; App. 1, Appx. P, AH. The Applicant also requests that the Subcommittee approve the installation of an electric transmission line, including related

conduits, cables, wires, poles, structures and devices across, over and along all 29 locally-maintained roadways. App. 1, at 93-94.

The Applicant also asserts that blasting may be required during the construction of the Project. App. 95. The Applicant submits, however, that it will retain a blasting contractor who will perform the required blasting in accordance with applicable local, state, and federal permitting requirements regarding blasting and the safe handling of explosives. App. 1, at 95.

Counsel for the Public stipulates that the Project will have a minimal and temporary impact on the travelling public during construction, and that traffic impacts will be limited to locations where the transmission line crosses public roads and at points of access to the right-of-way. *See* App. 23, ¶36.

*b. Subcommittee Deliberations*

Dr. Bailey's conclusion that electric and magnetic field exposure at the levels we encounter in our everyday environment, including transmission lines, is not a cause of cancer or any other disease process is credible. It is important to note that the level of the electro-magnetic field associated with the Project will be significantly below common restrictions for public exposure to electric and magnetic fields set forth by the International Committee on Electromagnetic Safety (electric field – 26.8 kV/m; magnetic field – 9,150 mG) and by the International Commission on Non-Ionizing Radiation Protection (electric field – 36.4 kV/m; magnetic field – 12,400 mG). We also note Dr. Bailey and Dr. Johnson's statement that the safety measures set forth in the National Electrical Safety Code will be implemented during construction of the Project.

As to Ms. Huard's claim that currently existing transmission lines negatively affected her health by shocking her, we note that we did not receive any evidence that would demonstrate that

the symptoms suffered by Ms. Huard were, in fact, caused by the existing transmission line. We also did not receive any evidence that would demonstrate that “shocks” by the transmission lines to bystanders are experienced by other people. Considering Ms. Huard’s testimony and testimony of the Applicant’s experts, we find that electro-magnetic fields associated with the Project will not have an unreasonable adverse effect on health. Because the electro-magnetic field data is based on modeling, we will require measurement of actual electro-magnetic fields before and after construction during peak load along each section number listed in Tables 12 and 13 in the Application, in consultation with the Public Utilities Commission’s Safety Division, as a condition the Certificate. The results of the measurements shall be filed with the Committee, compared with the results in Tables 12 and 13, and, if they exceed the guidelines of the International Committee on Electromagnetic Safety or the International Commission on Non-Ionizing Radiation Protection, the Applicant shall file with the Committee a mitigation plan designed to reduce the levels so that they are lower than the Committee’s or Commission’s standards.

The Applicant shall employ traffic controls in accordance with the 2009 edition of the Manual on Uniform Control Devices and DOT policies. To ensure safety of the public during the construction phase of the Project, the Applicant shall comply with DOT’s guidance on traffic control and blasting, during construction of the Project.

Considering the testimony, exhibits, and the conditions imposed upon the Applicant, the Subcommittee finds that that Project will not have an unreasonable adverse effect on public health and safety.

## **G. Public Interest**

The Subcommittee may issue a Certificate only if it finds that issuance of a certificate will serve the public interest. *See RSA 162-H:16, IV(e).* While determining whether the issuance of a certificate will serve the public interest, the Subcommittee is required to consider the following:

- (a) The welfare of the population;
- (b) Private property;
- (c) The location and growth of industry;
- (d) The overall economic growth of the state;
- (e) The environment of the state;
- (f) Historic sites;
- (g) Aesthetics;
- (h) Air and water quality;
- (i) The use of natural resources; and
- (j) Public health and safety.

*See N.H. CODE ADMIN. RULES, Site 301.16 (a)-(j).*

### *a. Position of the Parties*

The Applicant's experts, Robert Andrew and John W. Martin, in their joint pre-filed testimony, asserted that both the Updated Need Assessment study submitted to the ISO-NE Planning Advisory Committee and the ISO-NE "New Hampshire/Vermont Transmission System 2023, Need Assessment Report," documented and indicated the need for the reliability project proposed in this docket. *See App. 2, at 9-10.* They further stated that ISO-NE issued its Greater Boston Area Solutions Report which selected the Project and a group of other AC transmission upgrades as the preferred solution. *See App. 2, at 9-10.*

Mr. Andrew and Mr. Martin asserted that the Updated Need Assessment study found that there is insufficient capacity on the 115 kV and 345 kV ties between New Hampshire and Massachusetts to reliably serve area electric customers. *See App. 2, at 9-10.* Mr. Andrew and Mr. Martin further identified the following need for the Project: (i) "when electric loads are at

summer peak levels and certain area generation is unavailable, the loss of either a single transmission circuit or a combination of two circuits could load the 115 kV and 345 kV ties beyond their emergency thermal ratings;” and (ii) “when electric loads are low, the loss of either a single transmission circuit or a combination of two circuits could increase system voltages to a point at which electrical equipment is negatively affected.” *See* App. 2, at 9-10; Tr., 6/14/16, Morning Session, at 18. Mr. Andrew and Mr. Martin also reported that the ISO-NE “New Hampshire/Vermont Transmission System 2023, Need Assessment Report,” documented potential thermal overloads: (i) on the 326 line between Scobie Pond 345 kV Substation in Londonderry, New Hampshire and Sandy Point Substation in Ayer, Massachusetts; and (ii) on the 394 line between New Hampshire Transmission’s Seabrook Station in Seabrook, New Hampshire and Ward Hill Substation in Haverhill, Massachusetts. *See* App. 2, at 10.

According to Mr. Andrew and Mr. Martin, the Project addresses the needs identified in said studies by providing a new 345 kV transmission path between southern New Hampshire and northern Massachusetts, adding capacity and connecting the 115 kV and 230 kV lines. *See* App. 2, at 10. In summary, Mr. Andrew and Mr. Martin asserted that “[c]onstruction of [the Project will] improve the overall reliability of the transmission system serving southern New Hampshire and northeastern Massachusetts by improving its ability to withstand system disturbances caused by severe weather, equipment failures, and potentially volatile electric market conditions (i.e., unavailability of generation).” *See* App. 2, at 11.

The Applicant identifies the Project as a reliability Project, subject to a FERC tariff and its costs, in part, will be borne by New Hampshire rate payers. Tr., 06/14/2016, Morning Session, at 16. To preclude prohibitive costs to the New Hampshire ratepayers, Counsel for the Public asked the Subcommittee to require the Applicant to, within 45 days of its ISO-New

England filing, notify the Committee if the Applicant's forecasted or actual expenditures for the entire Project, between Tewksbury, Massachusetts (Tewksbury 22A) and Londonderry, New Hampshire (Scobie Pond Substation), as filed by the Applicant with its ISO-NE Regional System Planning forecast updates, exceed the projected cost for the entire Project by an amount equal to or greater than 25 percent. Tr., 07/11/2016, Deliberation Session, at 75-76. The Applicant assented to Counsel for the Public's request.

In addition, the Applicant's expert, Ms. Shapiro testified that the Project is in the public interest because it will generate significant real estate taxes for local communities and will provide additional employment. Tr., 06/14/2016, Afternoon Session, at 28.

Counsel for the Public stipulated that ISO-NE has determined that the Project is a necessary reliability project in the region. *See* Stipulation, at 52.

Ms. Huard testified that she is not "convinced that the MVRP has been proposed out of the need for the stability and reliability of the grid." *See* Pre-Filed Testimony, Margaret Huard, at 11.

*b. Subcommittee Deliberations*

The ISO-NE has determined that the Project is a necessary reliability project. The entire New England region needs the Project to ensure an adequate supply of energy in the region. The Project will not have an unreasonable adverse effect on the economy, environment, historic sites, aesthetics, air and water quality, the natural environment and public health and safety. We find that construction and operation of the Project is in the public interest. We further find that it will be useful for the Committee and for the public to know whether the Project's cost ultimately will be similar to the estimated costs. Therefore, the Subcommittee approves the condition offered by Counsel for the Public. The Applicant, within 45 days of its ISO-NE filing, shall notify the

Committee if the Applicant's forecasted or actual expenditures for the entire Project, between Tewksbury, Massachusetts (Tewksbury 22A) and Londonderry, New Hampshire (Scobie Pond Substation), as filed by the Applicant with its ISO-NE Regional System Planning forecast updates, exceed the projected cost for the entire Project by an amount equal to or greater than 25 percent. In addition, within 30 days of the date of commercial operation, the Applicant shall provide the Committee with its forecasted and actual expenditures for the entire Project and its allocation of such expenditures to the New Hampshire portion of the Project. Furthermore, the Applicant shall construct the Project within three (3) years of the date of the Certificate and shall file as-built drawings of the Project with the Committee at the date of the Project's commercial operation. The Committee's Administrator is delegated with the authority to review said drawings and confirm their conformity with the proposed Project. The Administrator shall notify the Committee of any discovered discrepancies.

## **VI. CONCLUSION**

Throughout the pendency of this Application, the Subcommittee has endeavored to be as transparent and inclusive as possible. The parties have had a full and fair opportunity to raise all issues and present their arguments. As a consequence, we are confident that we heard and understand the positions of all the parties, the potential impacts of the proposed Project, and the effects that it will have on the region and the entire state.

We have considered the Application, the exhibits, the testimony, public comments and oral arguments. We have fully reviewed the environmental impacts of the Project. We have also considered all other relevant factors bearing on the objectives of RSA 162-H. Having done so, we find, subject to the conditions discussed herein and made a part of the Order and Certificate, that:

The Applicant has the adequate technical, managerial and financial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the Certificate;

The site and facility will not unduly interfere with the orderly development of the region, with due consideration having been given to the views of municipal and regional planning committees and governing bodies;

The site and facility will not have an unreasonable adverse effect on aesthetics, historic sites, air quality, water quality, the natural environment or public health or safety; and

Issuance of a Certificate will serve public interest.

## **VII. APPEALS PROCESS**

Any person or party aggrieved by this decision or order may file an appeal to the New Hampshire Supreme Court by complying with the following provisions of RSA 541:

**R.S.A. 162-H: 11 Judicial Review.** – Decisions made pursuant to this chapter shall be reviewable in accordance with RSA 541.

**R.S.A. 541:3 Motion for Rehearing.** - Within 30 days after any order or decision has been made by the commission, any party to the action or proceeding before the commission, or any person directly affected thereby, may apply for a rehearing in respect to any matter determined in action or proceeding, or covered or included in the order, specifying in the motion all grounds for rehearing, and the commission may grant such rehearing if in its opinion good reason for the rehearing is stated in the motion.

**R.S.A. 541:4 Specifications.** - Such motion shall set forth fully every ground upon which it is claimed that the decision or order complained of is unlawful or unreasonable. No appeal from any order or decision of the commission shall be taken unless the appellant shall have

made application for rehearing as herein provided, and when such application shall have been made, no ground not set forth therein shall be urged, relied on, or given any consideration by the court, unless the court for good cause shown shall allow the appellant to specify additional grounds.

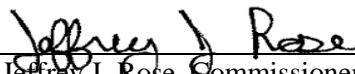
**R.S.A. 541:5 Action on Motion.** – Upon the filing of such motion for rehearing, the commission shall within ten days either grant or deny the same, or suspend the order or decision complained of pending further consideration, and any order of suspension may be upon such terms and conditions as the commission may prescribe.

**R.S.A. 541:6 Appeal.** Within thirty days after the application for a rehearing is denied, or, if the application is granted, then within thirty days after the decision on such rehearing, the applicant may appeal by petition to the supreme court.

By Order of the Site Evaluation Subcommittee this fourth day of October, 2016.



F. Anne Ross, General Counsel, Designee  
Public Utilities Commission



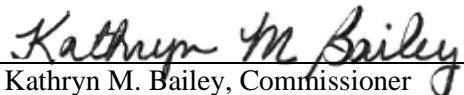
Jeffrey J. Rose, Commissioner  
Dept. Resources and Econ. Development



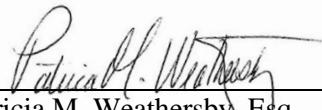
Richard A. Boisvert, Designee  
Dept. of Cultural Resources  
Division of Historical Resources



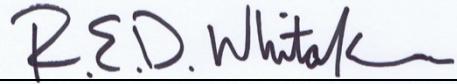
Michele Roberge  
Dept. of Environmental Services  
Air Resources Division



Kathryn M. Bailey, Commissioner  
Public Utilities Commission



Patricia M. Weathersby, Esq.  
Public Member



Rachel E.D. Whitaker  
Alternate Public Member