THE STATE OF NEW HAMPSHIRE

BEFORE THE

NEW HAMPSHIRE SITE EVALUATION COMMITTEE

DOCKET NO. 2015- 06

PRE-FILED DIRECT TESTIMONY OF JERRY FORTIER

IN SUPPORT OF THE
APPLICATION OF NORTHERN PASS TRANSMISSION LLC
AND PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
D/B/A EVERSOURCE ENERGY
FOR A CERTIFICATE OF SITE AND FACILITY TO CONSTRUCT A NEW HIGH VOLTAGE TRANSMISSION LINE AND RELATED FACILITIES IN NEW HAMPSHIRE

October 16, 2015

Qualifications and Purpose of Testimony

Q. Please state your name, title, and business address.

A. My name is Jerry Fortier. I am a Project Director at Eversource Energy ("Eversource"), currently assigned to the Northern Pass Transmission Project ("Northern Pass" or the "Project") being developed by Northern Pass Transmission LLC, an Eversource company ("NPT" or the "Company"). My business address is 56 Prospect Street, Hartford, Connecticut, 06103.

Q. Briefly summarize your educational background and work experience.

A. I hold an Associate's degree in Electrical Engineering from the Wentworth Institute of Technology in Boston, Massachusetts, a Bachelor's of Arts degree in Organizational Management from Ashford University in Clinton, Iowa and a Master's Certification in Project Management from George Washington University in Washington, D.C. I have directed and managed numerous other transmission line and substation projects for Eversource.

I was previously the project manager of the Greater Springfield Reliability Project (GSRP), the Interstate Reliability Project (Interstate), and the Central Connecticut Reliability Project (CCRP), which are three of the four major projects that are part of the New England East-West Solution. GSRP designed to address specific weaknesses in the transmission system around the Springfield, Massachusetts area and provide businesses and residents in the Greater Springfield area with improved access to competitively priced power. Interstate is designed to address weaknesses in the east/west and west/east transmission of power across Connecticut, Rhode Island, and Massachusetts. In 2013, the long-term reliability of the bulk power system in the Greater Hartford and Central Connecticut area was studied by ISO-New England. This study, called the Greater Hartford / Central Connecticut Study (GHCC), included a more comprehensive geographic area than the original scope of the proposed Central Connecticut Reliability Project to address flow-through and load-supply issues under certain dispatch patterns, contingency conditions, and transfer conditions. Attachment A is my resume, which includes a list of other projects I have managed.

Q. Have you previously testified before the Site Evaluation Committee?

A. No, I have not.

Q. What is your role in the Project?

A. I am a Project Director, currently assigned responsibility for the overall design and construction of NPT.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide an overview of the Project, summarize the construction plans, including plans to give hiring priority to local New Hampshire workers, explain post-construction operations and to describe the Applicants' technical and managerial capability to construct and operate the Project.

Key Project Elements

Q. Please provide an overview of the proposed Project.

A. NPT proposes to construct a high voltage direct current ("HVDC") electric transmission line with a 1,090 MW transfer capability running from the international border between New Hampshire and Canada to Franklin, New Hampshire, where it will connect to a new station that will convert the energy from HVDC to alternating current ("AC"). From this station, a new 345 kV AC line will extend approximately 34 miles in order to interconnect with the existing transmission system at the existing substation located in Deerfield, New Hampshire. The Project will also require upgrades at the existing Deerfield substation and the Scobie Pond substation located in Londonderry, each of which is owned and operated by Public Service Company of New Hampshire d/b/a Eversource Energy ("PSNH"), a wholly-owned subsidiary of Eversource.

The northern HVDC converter terminal will be constructed by Hydro Québec at its Des Cantons Substation in the Province of Québec, Canada; it will be connected to an HVDC line that will run southward in Québec for approximately 47 miles, where it will cross the U.S. and Canadian border into Pittsburg, New Hampshire. The New Hampshire segment of the HVDC line will continue southward for approximately 158.3 miles to the southern HVDC converter terminal. As part of the Project, the line will consist of three underground cable segments totaling approximately 60.5 miles.

NPT will lease approximately 99.5 miles of existing electric transmission right-of-way ("ROW") from PSNH in two segments. From Pittsburg, the line will extend southerly on land or in ROW belonging to entities other than PSNH for approximately 40 miles (approximately 8 miles of this segment would be installed underground in public roads). After reaching Dummer,

the Project will travel overhead in ROWs owned by PSNH between Dummer and Bethlehem over a distance of approximately 40.5 miles (the "Northern Segment"). From Bethlehem, for a distance of approximately 52 miles through the White Mountain region and down to Bridgewater, Northern Pass will be located primarily underground in public roads. Thereafter, the Project will continue overhead in PSNH's ROWs from Bridgewater to a HVDC/AC converter station to be constructed by NPT in Franklin, New Hampshire. Once converted, Northern Pass will continue as a 345 kV AC line from Franklin along approximately 34 miles of ROWs owned by PSNH to an existing PSNH substation in Deerfield, New Hampshire (together with the Bridgewater to Franklin corridor, the "Southern Segment"). For additional information regarding the land rights associated with the Project, please see section (b)(6) of the Application. The Project map sheets can also be found in Appendix 1.

Once the Project is commissioned, and ready for commercial operation, ISO-NE will assume operational control pursuant to the terms of a FERC-approved Transmission Operating Agreement between NPT LLC and ISO-NE. The Project will enable the transmission of 1,090 MW of power between Québec and New England. Its objective is to provide clean, renewable, competitively-priced electricity for consumers in New Hampshire and the rest of New England.

Q. What are the key physical features of the Project?

A. The key components of the Project, described below, are the HVDC line, the converter terminal and the 345 kV AC line. Other components of the Project that are required to support the interconnection to the regional transmission system are included in the Project Description, which is located in section (h)(1) of the Application.

The heart of the Project is the construction of the +/- 320 kV DC transmission line from the Québec border to Franklin NH. The HVDC line will be approximately 158.3 miles in length with 97.8 miles of overhead construction and approximately 60.5 miles of underground construction.

The overhead portions of the HVDC line will consist of a 32 mile section where new rights have been secured to locate the line. Twenty-four miles of the 32 mile section are within a working forest that is already frequently cleared. The remaining 65.8 miles of overhead will be installed in existing PSNH ROW that already has existing transmission and distribution lines. For the area where the HVDC line will be located within an existing ROW, where necessary,

portions of the existing transmission and distribution lines will be relocated to allow room for the HVDC line construction.

The underground cables will be installed in three sections with a total Project length of 60.5 miles. The three areas are 1) a 0.7 mile segment in the towns of Pittsburg and Clarksville in the vicinity of the Route 3 bridge crossing of the Connecticut River, 2) a 7.5 mile segment in the towns of Clarksville and Stewartstown and 3) a 52.3 mile segment starting in the Town of Bethlehem at Route 302 and ending at the intersection of the transmission ROW and Route 3 in Bridgewater. The 52.3 mile segment would be constructed within Routes 302, 18, 116, 112 and 3. At the six locations (one at each end of the cable segment) where the overhead line transitions between the overhead line and cable, a transition station will be installed. The transition station will resemble a small substation and will be approximately 75' by 130'. Equipment in the transition station will include a terminal structure, surge arresters, instrument transformers, cable terminators communications equipment and a small control enclosure.

The converter station is located in Franklin, New Hampshire. The site was selected for three reasons. First, NPT was able to locate, and purchase from a willing landowner, a previously disturbed parcel that is large enough to accommodate the converter terminal. In addition, the use of this site facilitates the potential use and incorporation of the 345 kV by PSNH into a reliability project should ISO-NE determine that the AC line, together with other system improvements, would provide transmission system reliability benefits in the future. Finally, the site is located close to the existing ROW.

The conversion of energy from HVDC to AC will be done at a Converter Terminal that has as its core operation feature a Voltage Source Converter ("VSC"). The converter terminal footprint is approximately 10 acres and will be located within a 118 acre parcel in Franklin, NH. The main components of the VSC include:

- A DC area where the line enters the terminal. Equipment in this area includes disconnect switches, circuit breakers, capacitors, reactors and instrument transformers.
- The conversion from HVDC to AC takes place in a valve hall. This is a building that is approximately 235' by 180'. The main electrical component that transforms the energy between AC and DC is the insulated gate bi-polar transistor (IGBT). An IGBT is an electronic device that essentially builds an AC voltage from the HVDC voltage. In addition to the IGBTs,

HVDC reactors are located in the valve hall. A control room and unmanned office space will be located adjacent to the valve hall.

- The AC portion of the Converter Terminal includes the converter transformers, reactors, filters, capacitors, instrument transformers, disconnect switches and circuit breakers. The entire Converter Terminal will be located within a security fence.

Q. Please describe the steps being taken to allow NPT to utilize the existing PSNH transmission corridor.

A. Concurrently with the filing of the Application, NPT will submit to the New Hampshire Public Utilities Commission ("PUC") a Petition to Commence Business as a Public Utility in the State of New Hampshire. In addition, both PSNH and NPT will seek approval by the PUC of a lease that will allow NPT to use existing PSNH ROW.

Q. Please describe the ROW and any widening that will be required to construct the Project.

A. The transmission corridor in the new portion of the North Section where there is no preexisting transmission ROW, will be 120 feet wide. The line was redesigned to reduce the portion of the ROW that will be cleared. As described previously, much of this new corridor is a working forest and subject to routine timber harvesting. The 120 foot width was selected because it will accommodate not only the operation of the transmission line, but also construction, maintenance and repair activities. It is designed to accommodate both steady state and extreme weather conditions, based on both NESC design requirements and good utility practice.

As previously described, for the Central and South Sections and a portion of the North Section, Northern Pass intends to use existing transmission ROW under its lease with PSNH. The width of the existing ROW varies from 150 feet to 392.5 feet.

Q. Explain what upgrade work will be done at the Deerfield substation and why.

A. As discussed above, certain upgrades to the AC system are required to support the Project's interconnection with the regional electric grid. Additional work is necessary at the Deerfield substation in accordance with the requirements identified by the ISO-NE as part of its I.3.9 process.

Initially, the ISO-NE I.3.9 studies analyzed the impact of a new 1,200 MW transmission project and identified that the two 345 kV lines between Deerfield and Scobie Pond needed to be

thermally uprated to ensure minimum clearance criteria are not violated. This involves replacement of certain structures along the path to allow the line to transmit a greater level of power.

Since the initial I.3.9 studies, the Project has altered its projected power flow from 1,200 MW to 1,090 MW. The Project is currently undergoing a new I.3.9 study, which is expected to provide substantially similar results.

The Northern Pass 345 kV AC line will terminate at the existing Deerfield Substation where the power will then flow to other New Hampshire substations and the New England electrical system. At Deerfield Substation, portions of the substation will be reconfigured to accommodate the Project. The work involves relocating certain 345 kV line terminals and adding 345 kV line positions to the substation. In addition to the line terminal work, an existing 345 kV line, the 391 line, that presently goes by the substation will be looped into and out of the Deerfield Substation (two line terminal positions will be added). The 345 kV line work and terminal additions will be constructed within the existing substation fenced area.

In a separate new substation area adjacent to the existing substation, a static VAR (volt-ampere reactive) compensator (SVC) and 345 kV capacitor banks will be installed. These devices, which were identified by the ISO-NE during its initial I.3.9 study, provide system voltage support during abnormal system events.

For the Deerfield upgrade, the equipment additions will include breakers, the SVC and transformer, capacitor banks, switches and bus, instrument transformers and arresters.

Q. Is work planned for any other substation locations?

A. Yes, a 345 kV capacitor bank addition is planned for an expansion of the Scobie Pond Substation along with the installation of 345 kV breakers in the existing substation bus.

Q. Explain why some existing lines need to be rebuilt and relocated.

A. Relocating some of the existing 115 kV transmission lines and 34.5 kV distribution lines is necessary to make room for the Project facilities. This allows NPT to lower structure heights to reduce potential visual impacts and to satisfy electrical code requirements. NPT has sought to utilize existing transmission ROW to the maximum extent feasible in order to minimize environmental and other impacts of the Project. NPT will bear the costs of all relocations and rebuilding of the PSNH lines.

In order to maximize the use of existing ROW and to reduce structure heights to reduce visual impacts in the HVDC portion of the line, NPT will relocate approximately 39.5 miles of existing 115 kV lines and 11.7 miles of 34.5 kV lines. For the 345 kV AC portion of the Project, approximately 22.8 miles of existing 115 kV lines and 6.5 miles of 34.5 kV lines must be relocated.

In addition, to address specific visual impact concerns expressed by officials and residents in Concord, NPT agreed to modify its design to reduce structure heights for the 345 kV AC line in some areas. Specifically, six additional miles of 115 kV line will be relocated to allow use of H-frame structures. The H-frame has a standard design height of 80 feet, which is the lowest height of the AC structure design alternatives.

Underground Construction

Q. What technology is associated with constructing an underground transmission line of this magnitude?

A. Underground cables will be installed using a combination of construction techniques that include direct burial of the cable in trenches, installation of the cable in conduit or in a duct bank constructed in trenches or through the use of trenchless technology. The trenchless technology will include jack and bore and directional boring. The depth of the direct buried cable will be approximately four feet below grade; the depth of the conduit or duct bank will vary based upon its configuration and will have at least 30 inches of cover over the duct bank; the depth of the jack and bore will be approximately 25 to 30 feet below grade; and the depth of the directional boring sections will be approximately 65 feet below grade at its maximum depth. The exact depth of the trenchless conduit installation, duct bank or direct buried cable may be adjusted based upon the final civil design. After the cable sections are installed, multiple segments of the line will be joined together in splice pits at locations along the route.

Project Construction

Q. Describe the process for selecting contractors that will be involved in the construction of the Project and what their respective roles will be.

A. The construction of the Project will be managed and constructed by several specialty contractors. The contractors that will be chosen will have years of experience in managing and constructing high voltage transmission lines and substation facilities throughout

the United States and here in New England. For the Project, NPT will choose contractors with the experience and capabilities necessary for the size of this Project and the types of work that they will perform. The major categories of work necessary to complete the Project include engineering and design services, project management and control services, construction management, converter terminal and underground cable supply, and transmission line and substation construction services.

Each contractor chosen to work on this Project will be evaluated and selected based upon experience and previous performance on projects of similar size and scope in their respective fields and will include the review of each contractors safety and environmental record for comparison with industry standards. The procurement process will be managed by NPT's procurement group and will include standard utility practices including shortlisting qualified bidders, web-based bidding process, detailed bid evaluations based on technical and commercial criteria and contract negotiation and award.

Q. Describe the qualifications and role of the Owner's Engineer that will be involved in this Project.

A. It is expected that NPT will hire an Owner's Engineer or equivalent to assist it with the management of the construction process. The preferred Owner's Engineer will be a full-service engineering, architecture, construction, environmental and consulting solutions firm and will have a multi-disciplined staff of resources including engineers, architects, construction professionals, planners, estimators, economists, technicians and scientists, representing virtually all design disciplines. The Owner's Engineer will also be NPT's representative for engineering and design services, project management and controls services, and construction management and will be responsible for monitoring, coordinating and reporting to the Project. Reports will include the quality and compliance of the work that the construction contractors and vendors perform on this Project. The Owner's Engineer will provide services including design, permitting, construction management, schedule, cost, construction coordination, materials management, safety oversight, environmental compliance oversight, communications, and project closeout.

Q. Describe the qualifications and role of the overhead line Construction Contractor that will be involved in this Project.

A. The construction contractor chosen will demonstrate the ability to manage a project of this size and will have had recent successful experience in the construction of high voltage switching stations and substations, underground or overhead transmission lines and HVDC converter terminals as appropriate. The contractor will have a demonstrated ability to construct the work within the allotted time frames and have the ability to supply adequate labor. The preferred contractor for this Project will have the resources available to deliver the technical skill and physical capacity to respond safely, quickly and cost effectively and have an established track record of success with the ability to draw on field employees that are members of the International Brotherhood of Electrical Workers ("IBEW") and work closely with the National Electrical Contractors Association ("NECA"). This strong IBEW/NECA connection ensures trained, highly productive and safety-oriented personnel.

Q. Describe the qualifications and role of the Converter Terminal and Underground Cable supply vendor that will be involved in this Project.

A. The converter terminal, SVC and underground cable systems that are being proposed for this Project are unique in design and can only be manufactured by specialty companies. Worldwide, there are only a handful of vendors that can provide such equipment. Northern Pass has issued a request for proposal ("RFP") for the supply of the converter terminal, SVC and cable system. This RFP is underway and thus a final supplier has not yet been selected. Each of the companies participating in this RFP has vast experience in the manufacturing and installation of converter terminal and cable systems worldwide and in North America. It is expected that the vendor of choice will be selected in the near future and will immediately be integrated in the existing design teams of the converter terminal and cable systems. This contract will be for the supply and installation oversight of the converter, SVC and cable equipment.

Q. Describe how the companies described above will work together.

A. The construction of Northern Pass will be a collaborative effort of NPT, the construction contractor and the Owner's Engineer. Each brings its unique skill sets to the table to create a strong and dynamic team. The converter terminal and underground cable supply vendor will provide equipment and construction services specific to the converter and underground cable.

NPT, as owner, will be responsible for all major management decisions. The Owner's Engineer and the construction contractor senior project managers will report directly to the lead Northern Pass Transmission Project Director. This reporting will include updates on cost, schedule, risk, compliance, issues and other matters as it relates to the construction process. Regular meetings (weekly and monthly) will be held to provide project updates.

Attachment B details the Construction Management Reporting Matrix and shows conceptually how the companies will integrate the distinct design and construction efforts.

Both the Owner's Engineer and the construction contractor will have direct lines of communication at all significant levels of operation (safety, community relations, environmental compliance, outage coordination, materials management, project controls and construction coordination). This direct communication allows for fast information exchange and processing and ensures that daily decisions are made in a timely manner. The Owner's Engineer will provide the coordination and reporting that ensures that the Project is meeting all standard and compliance requirements.

Q. Please provide a general description of a Project Labor Agreement ("PLA").

A. A PLA is a set of terms and provisions agreed to between a construction project owner and a union regarding how work will be performed on a project. The owner includes PLA specifications in its bid requirements when it solicits contractors for its project. A contractor who accepts a contract award accepts the provisions of the PLA, and will apply the terms and provisions of the agreement with union and nonunion personnel who are hired to work on the contracted job.

Q. Describe how Northern Pass Transmission expects to use a PLA?

A. Northern Pass is firmly committed to hiring local, New Hampshire workers first, and to developing strong working relationships with both large and small contractors who are either union or non-union. In addition, Northern Pass will be seeking contractors who have a track record of working safely and in an environmentally sensitive manner, and who are focused on competitive pricing and on-time service.

The PLA used for the Project was uniquely structured to promote local jobs to New Hampshire workers. That is the top priority. There are provisions to bring in non-union companies both where there are specialized skills or equipment not provided by tradesmen, and

where there are simply not enough skilled craftsmen available to staff a job. Non-union companies can become signatories to the PLA.

The PLA specifically identifies non-union job opportunities that are not subject to the agreement, including logging, landscaping, land clearing, maintenance and warranty work on equipment, training, testing, and equipment installation.

Numerous "service vendors" providing such as trash haulers, security, fuel delivery, and janitorial services, are also included in these non-union opportunities. Non-union job opportunities also include a number of "non-manual job categories" needed for project support. These include inspectors, timekeepers, clerical and administrative workers, guards, emergency medical technicians, quality assurance/quality control staff, and engineering, real estate, survey, technical, and supervisory personnel.

The major engineering, construction, and equipment suppliers will generally hire trade personnel and/or subcontractors directly. The PLA requires that contractors hire NH labor and/or NH subcontractors first to ensure that local suppliers and businesses will be utilized.

The contractors who will be bidding on the Project's major contracts will need to propose specific, aggressive, and innovative staffing/hiring plans as part of their efforts to provide a winning bid.

As the Project construction start date draws closer, NPT will hold job fairs where Project contractors will meet with those interested in working on the Project. In addition, the IBEW, one of the major unions that will be working on the job, will be soliciting workers for its training and apprentice programs to ensure an adequate supply of labor for the Project in key skills areas.

Q. Please describe how NPT intends to address any violations of either state or federal requirements that were pre-existing on the land prior to the start of construction.

A. Any potential violations (e.g. environmental issues) will be identified and reported to the appropriate reporting agency. Wherever possible, these issues will be resolved prior to when construction activities commence. Additionally, notification protocols will be created to assess any potential violations that could be identified once construction activities commence.

Project Operations

Q. After the Project is constructed, how will the Project operate?

A. Following completion of the Project construction phase, ISO-NE will assume operational control over the transmission facility pursuant to the terms of a FERC-approved Transmission Operating Agreement ("TOA") between NPT and ISO-NE.

Section 6.1(a) of the Transmission Service Agreement ("TSA") contemplates that the management committee comprised of Hydro Renewable Energy and NPT personnel will review the terms and conditions of the TOA to facilitate alignment of all interested parties. Under the TOA, NPT expects that ISO-NE will assume operational authority over the Project and all transactions over the line will be scheduled in accordance with the applicable New England market rules. ISO-NE will also have final approval authority over planned line outages. Therefore, Northern Pass effectively will operate in the same manner as all other facilities within the integrated ISO-NE system.

Section 6.2 of the TSA requires NPT to maintain the Project in accordance with good utility practice and in compliance with all applicable regulatory requirements, including applicable North American Electric Reliability Corporation ("NERC") and Northeast Power Coordinating Counsel ("NPCC") reliability standards, and to comply with all applicable operating instructions and manufacturers' warranties.

Q. Please describe the maintenance and inspection activities associated with Project operations.

A. For the Project route where there are already transmission lines, many of the maintenance and inspection activities will be performed for the Project as the crews traverse the ROW. In these locations, NPT will pay its allocated share of the costs associated with such maintenance and inspection activities.

Where the Project is not located with existing transmission lines, maintenance and inspection activities will be paid for by NPT, and performed consistent with the Eversource Energy maintenance policies and procedures which are documented in the Eversource Energy Transmission Maintenance Program Manual ("TMPM"). The TMPM is based upon the following key attributes:

- Best practices for preventive maintenance;

- Assuring compliance with regulatory and power coordination authority standards and guidelines;
- Establishing maintenance practices that are practical and cost effective;
- Establishing maintenance practices that monitor equipment operating conditions and provide trend data; and
- Written descriptions of the maintenance program.

During operation, NPT and its contractors will follow all Eversource Energy company policies and procedures, including a well-established set of transmission procedures mandated for all Eversource Energy employees and contractors. Those policies and procedures include all OSHA regulations, all State and federal regulations and other guidance documents. In accordance with maintenance procedures, Eversource Energy inspects high voltage transmission lines (including Northern Pass) on the following basis:

- Aerial patrol of the line each year for inspection of structures and conductors;
- Foot patrol of the line each year to visually inspect the facilities;
- Thermographic inspection of the line two times per year;
- Patrol of lines after every interruption if the specific cause cannot be identified;
- Aerial patrol of lines each year for vegetation management inspection; and
- Three year vegetation maintenance within cleared areas, ten year side trimming and tree removal as required.

With regard to the stationary buildings, including maintenance for transition stations, converter terminal, underground sections, and the substations, NPT will undertake the following:

- Monitoring, testing and maintaining, civil, electrical, protection and communication equipment including visual inspection, sampling, trending, testing, maintenance and time based equipment replacement; and
- Monitoring on-line key electrical devices to determine equipment status, load levels, and temperature and to identify any abnormal conditions
- Spare parts will also always be kept on site.

In addition to the TMPM, the Protection System Maintenance Program ("PSMP") provides the basis for performing maintenance on Protection System components across the three-state Eversource Energy system. The PSMP provides the basis to verify regulatory

compliance for protective systems. The requirements of the Federal Energy Regulatory Commission ("FERC"), NERC, NPCC and ISO-NE form the basis for the PSMP.

Q. Please describe the vegetation maintenance work that will be required once the Project is in operation.

A. PSNH will be responsible for vegetation maintenance work and a cost sharing agreement will be developed in connection with this work. Maintenance activities in the ROW, depending on the natural features and accessibility of the ROW, can be carried out on foot, or by line truck, track mounted vehicle, all-terrain vehicle or snowmobile. Any of these activities can have an impact on the environment if not performed in a sensitive manner. All vegetation management and line maintenance activities associated with the Project's new lines will be performed in accordance with the New Hampshire Division of Forest and Lands Best Management Practice for Utility Maintenance. The Best Management Practice publication provides guidance for identifying appropriate means and methods for vegetation management and maintenance in or within the vicinity of jurisdictional wetlands. The company will provide a field manual summarizing the Best Management Practice to all contractors performing maintenance work in the ROW.

Q. Please describe the security measures associated with Project operations.

A. NPT also will implement security measures consistent with industry practices and Eversource Energy policies, including the use of security cameras at stations. With regard to the stationary buildings, transition stations, converter terminal, underground sections, and the substations, NPT will maintain the facilities in accordance with the TMPM, the PSMP and manufacturer recommendations. Maintenance activities for those facilities will include:

- Monitoring, testing and maintaining civil, electrical, protection and communication equipment including visual inspection, sampling, trending, testing, maintenance and time based equipment replacement;
- Monitoring on-line key electrical devices to determine equipment status, load levels, and temperature and to identify any abnormal conditions; and
- Maintaining an adequate supply of spare parts on site.

Q. Please describe how NPT will manage Project operations.

A. NPT will rely on Eversource Energy's transmission maintenance and work management department to support the operating and maintenance requirements of the new facilities associated with the Project. NPT will pay for the cost of these services. To the extent appropriate or required (including for emergency repair efforts resulting from storms or system events), Eversource Energy supplements its transmission maintenance and work management department with contractors having crews with the necessary skills and experience. The collective staff available to NPT will ensure that all maintenance and operational activities are performed in accordance the TMPM and PSMP.

Q. Describe all measures that will be employed to ensure the Project operates safely.

A. During Project operations, NPT and its contractors will follow all Eversource Energy policies and procedures, including a well-established set of transmission procedures which contractors are required to follow. These policies and procedures necessarily include all Occupational Safety and Health Administration ("OSHA") regulations, all State and federal regulations and other guidance documents. NPT will also adhere to the National Fire Protection Association ("NFPA") 850 Recommended Practices for Electric Generating Plants and High Voltage Direct Current Converter Stations.

Q. Describe what measures will be taken to ensure the security of the Project once constructed.

A. The Project will meet all requirements identified by the Federal Energy Regulatory Commission in CIP-014-1, the security Reliability Standards for critical Bulk Power System facilities. Features of the Eversource Energy security plan include the following:

- Inspection of the converter station, transition stations and substations in accordance with the Eversource maintenance procedures
- Inspection of transmission lines (foot patrols and aerial inspections) in accordance with Eversource maintenance procedures
- Security gates at converter station, transition stations and substations
- Transmission line ROW gates to restrict access to the ROW at certain locations. Perimeter fencing at all station facilities

- Security cameras – to be used at converter and substations
- Control House security system

Technical and Managerial Capability

Q. Please summarize why the Applicants have the technical and managerial capability to construct and operate the project.

A. As discussed in the pre-filed testimony of James A. Muntz, Eversource has extensive experience siting large transmission projects in New England. Eversource owns and operates approximately 4,270 miles of transmission lines in the Northeast and serves approximately 3.6 million electric and natural gas customers in the region. The Eversource Transmission Business is a procedure-driven organization that has been structured for the specific purpose of constructing, operating and maintaining transmission assets in the states of CT, MA and NH. Eversource Transmission utilizes procedures for all key functions including Project Management, Engineering, Maintenance and Operations, and Quality Control, to name a few. Eversource has a significant ongoing transmission capital construction program in New Hampshire, of which this project is only a small part. Over the past decade, Eversource has a proven track record of constructing many complex transmission projects.

Eversource and its contractors have an extensive staff of in-house siting, engineering, environmental, legal project management and construction professionals, skilled in the development of large transmission projects. Eversource has numerous relationships with many major engineering firms, environmental and other related consultants and contractors which we will rely on to execute projects in a safe, efficient and cost effective manner.

Based on the information contained in the Application, coupled with the relevant pre-filed testimony, the Applicants have the requisite technical and managerial capability to construct and operate the Project.

Q. Does this conclude your testimony?

A. Yes, it does.