## STATE OF NEW HAMPSHIRE

**Inter-Department Communication** 

**DATE:** February 27, 2017 **AT (OFFICE):** NHPUC

**FROM:** Randy Knepper

Director - Safety Division

**SUBJECT:** Docket No. DE 15-460, DE 15-461, DE 15-462 and DE 15-463

Northern Pass Transmission Project

Northern Pass Transmission, LLC (NPT) and

Public Service Company of New Hampshire d/b/a Eversource Energy (ESE)

Staff's Overall Review of the Petitions for Licenses to Cross Public Waters and

Lands

**TO:** Debra Howland, Executive Director

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cc: Robert Wyatt, Assistant Director, Safety Division

#### A. Brief Summary of Procedural History and Staff's Review Process

On October 19, 2015, Northern Pass Transmission, LLC (NPT), and Eversource Energy (ESE) filed with the New Hampshire Public Utilities Commission petitions for licenses to cross public waters (DE 15-460 (NPT) and DE 15-462 (ESE)) and public lands including state owned railroads (DE 15-461 (NPT) and DE 15-463 (ESE)) for the Northern Pass Transmission Project. NPT and ESE filed for a combined 67 licenses¹ at 29 individual locations. NPT filed for 39 licenses and ESE filed for 28 licenses. These crossings include overhead as well as underground crossings. On April 1 and 4, 2016, the Commission held Prehearing Conferences for all four petitions, providing each party the opportunity to present their initial positions. Based on these positions, the Commission ordered legal briefs concerning the application of RSA 371:17 and RSA 371:20 with respect to the four petitions. By secretarial letter dated April 15, 2016, the Commission set a deadline of May 2, 2016, for submission of briefs. Briefs were filed by NPT, the City of Concord (as an intervenor in DE 15-460) and DE 15-462), the Society for the Protection of New Hampshire Forests (SPNHF), (an intervenor in DE 15-460), and Commission Staff. The Commission issued Order 25, 910 to guide the overall review of the four petitions.

The Commission's Safety Division (Staff) has completed its review of the petitions for licenses to cross each of the public waters and state-owned public lands along the full length of the Northern Pass Transmission Project. The new transmission line will cross the US-Canadian border in Pittsburg NH, extending approximately 192 miles through multiple cities and towns along existing and proposed

utility corridors, plus two smaller segments that will be constructed under State highways, and terminating in Deerfield, NH. Approximately 158 miles of the NPT transmission line will be operated as direct current (DC) at 320 kVolts<sup>2</sup> and the remaining approximate 34 miles will be operated as alternating current (AC) at 345 kVolts.

Research involved in the review of the four petitions required Staff to use commercial engineering modeling software to verify much of the design and clearance data submitted in the petitions. This review involved communication with NPT's engineers to clarify data points used in the PUC assessment. Staff used a comprehensive verification scheme applying Geographic Information Systems to review the locations of the crossings in context with surrounding residential and commercial buildings, existing utilities and other energy infrastructure. Staff examined proposed support structures and parcel information regarding easement documentation and land use. Since state lands were involved, a historical verification was made on land crossings to assess if easement documentation predated the state acquiring the lands and also to consider if the Northern Pass Project required relocation of existing transmission or distribution lines which would necessitate new licenses to be issued. Typically, such an extensive review is not conducted but given the high profile of the Northern Pass Project and its potential impacts within the state, Staff analyzed the detailed information submitted to identify if deficiencies existed. Staff also used the traditional tools at its disposal for gathering information to complete its review such as field investigations and code compliance assessment. The project review consisted of the following:

- Staff issued seven sets of data requests to the petitioners and reviewed all of the data responses, all other supplemental support documents filed by the petitioners, as well as all other filings and correspondence filed to the dockets.
- Additionally, two technical sessions were conducted among the parties to these dockets, allowing for additional review of discovery and an open exchange of information.
- Staff sent letters soliciting comments related to the NPT project to Executive Leadership of three State Agencies including the New Hampshire Adjutant General, all of which manage public lands with proposed new and/or relocated existing land crossings. Response comments were received from the Department of Transportation, the Department of Resources and Economic Development and the NH Adjutant General office.
- Staff retained an independent engineer to perform technical analysis of the transmission line clearances above each of the Public Waters and State Lands crossings. The analysis used Southwire's "SAG 10" commercial software licensed to the NHPUC Safety Division.
- Staff performed limited field inspections using measuring equipment to verify existing transmission line clearances and structure types, heights and locations.
- Staff researched and collected land ownership documents, copies of deeds, easements, etc. from public records filed in the NH Site Evaluation Committee Docket 2015-06, Forward NH internet site regarding plan reviews and NH PUC Docket DE 15-464 for each of the public waters and lands crossing locations.

Staff's typical review process used to develop recommendations regarding the crossings petitions consisted of the following elements:

- Petition contents and history;
- Applicable State Statutes;
- Crossings included in the petitions that did not require licenses;
- Whether the license can be exercised without substantially affecting the public rights in waters or lands;
- Whether any of the proposed relocations of existing ESE crossings are already licensed by the PUC;
- An assessment of land ownership, deeds, easement documents, etc., for each of the crossing facility locations;
- Verification and methodology used to determine clearances of electric power lines from railroad, land and waters crossings;
- A determination that the crossings will be constructed and maintained in accordance with the standards of the NESC code and the requirements of N.H. Administrative Rules Chapter Puc 300; and
- Conclusions and Recommendations.

Staff's approach was to combine the four petitions into one large project and to geographically regroup the license requests from north to south into 4 zones depicted on 24 Public Utility Commission generated detailed maps. These four zones each have a corresponding recommendation. Staff reviewed each of the sixty-seven public waters and state lands crossings related to the four petitions filed in dockets DE 15-460, DE 15-461, DE 15-462 and DE 15-463. Staff eliminated six of the crossings that did not meet the requirements of public waters thus did not require a license be reviewed or issued. As stated previously, each recommendation includes a group of crossings that have been organized by specific geographic zone. See Table 1 for the complete list of the crossings that Staff reviewed in detail for license suitability. Figure 1 shows the overall NPT project depicting locations and types of crossings, underground portions, overhead portions, locations of detailed PUC Generated Maps and sample layouts for the AC/DC converter station, Underground/Overhead Transition stations. Figures 2-5 show the corresponding detailed map locations in relation to the overall Northern Pass Project and segment the NPT project into four zones. Figures 2-5 are single-page maps and display the towns, types of crossings and corresponding detailed map identifications. Figures 1-5 and the 24 detailed Maps were created by the NHPUC Safety Division using internal GIS mapping software.

Staff Recommendations 1 through 4 are provided under separate cover attached to this Overall Staff Review Memorandum. The four Staff Recommendations provide information specific to each public water, land or rail crossing. Crossing details are provided in Appendix A of each recommendation. For example, Appendix A.1 in Staff Recommendation 1 corresponds to Staff designated Zone 1 and has 20 separate single-page tables. Staff Recommendation 2 for Staff designated Zone 2 includes 5 licenses identified as individual crossings, with single-page detail tables for each in Appendix A.2. Recommendation 3 covers the crossings in designated Zone 3 including 17 licenses, with single-page

detail tables for each in Appendix A.3. Recommendation 4 covers the crossings in designated Zone 4 including 19 licenses, with single-page detail tables for each in Appendix A.4.

As noted in Commission Order No. 25,910, dated June 28, 2016, licenses to cross these public waters and lands, if approved, are contingent on the project developers, Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy, getting final approvals from the New Hampshire Site Evaluation Committee. These will be conditions that Staff recommends be included within each license if granted.

Attachment A provides 3 Spreadsheets which summarize the crossings with details that cross reference Site Evaluation Committee Dockets, previous licenses granted through PUC Commission Orders and Deed Information including book and page number; Tax Map Information including tax map number, block number and lot number; and DE 15-464 Bates Page reference numbers. These spreadsheets are organized by 3 sorts:

- 1) detailed PUC generated Map number
- 2) by town alphabetically
- 3) by Zone by detailed PUC generated Map number

Table 1.	NPT Project Review	- List of NPT a	and ESE Public V	Vaters and Lan	ds Crossings	
Staff	Water/	DE 15-460	DE 15-461	DE 15-462	DE 15-463	Totals
Zone-	Land	NPT Water	NPT Land	ESE Water	<b>ESE Land</b>	
Map	Name	Crossing/	Crossing/	Crossing/	Crossing/	
#		License	License	License	License	
1-1	Halls Stream	Pittsburg				1
1-2	Connecticut River	Pittsburg				1
1-3	Nash Stream Forest		Stark		Stark	2
1-4	Percy State Forest		Stark		Stark	2
1-5	Upper Ammonoosuc	Stark	-	Stark	-	2
1-6	Cape Horn Forest		Northumberland		Northumberland	2
1-7	Otter Brook	Lancaster		Lancaster		2
1-7	Israel River	Lancaster	-	Lancaster	1	2
1-7	NHDOT RR	1	Lancaster		Lancaster	2
1-8	NHDOT RR	1	Dalton		Dalton	2
1-8	Johns River	Dalton		Dalton		2
2-9	NHDOT RR		Bethlehem		-	1
2-9	Ammonoosuc River	Bethlehem				1
2-10	Gale River	Franconia				1
2-11	Moosilauke Brook	Woodstock			-	1
2-12	Baker River	Plymouth	-			1
3-13	Pemigewasset River	Bridgewater				1
3-14	Squam River	Ashland				1
3-15	NHDOT		New Hampton		New Hampton	2
3-15	Pemigewasset River	New Hampton		New Hampton		2
3-16	Pemigewasset River	Bristol		Bristol		2
3-17	Pemigewasset River	New Hampton	-	New Hampton	1	2
3-18	W.H. Thomas Forest		Hill			1
3-19	Northern Rail Trail		Franklin		Franklin(2)	3
3-19	Chance Pond	Franklin		Franklin (2)		3
4-20	Northern Rail Trail		Franklin		Franklin	2
4-20	NHDOT Land	1	Franklin		Franklin	2
4-20	Merrimack River	Franklin	-	Franklin	-	2
4-21	NHDOT RR		Canterbury		Canterbury	2
4-22	Turtle Pond	Concord		Concord (2)		3
4-23	Soucook River	Concord		Concord (2)		3
4-23	NHAG Land		Pembroke		Pembroke (2)	3
4-24	Suncook River	Pembroke				1
4-24	Bear Brook Park		Allenstown			1
Zone 1	Sub-Total Licenses	6 NPT Water	5 NPT Land	4 ESE Water	5 ESE Land	20
Zone 2	Total Licenses	4 NPT Water	1 NPT Land	0 ESE Water	0 ESE Land	5
Zone 3	Total Licenses	6 NPT Water	3NPT Land	5 ESE Water	3 ESE Land	17
Zone 4	Total Licenses	4 NPT Water	5 NPT Land	5 ESE Water	5 ESE Land	19
Project	Total Licenses	20 NPT Water	14 NPT Land	14 ESE Water	13 ESE Land	61

Figure 1: Overall 192 mile Northern Pass Project (best when viewed on E Size)

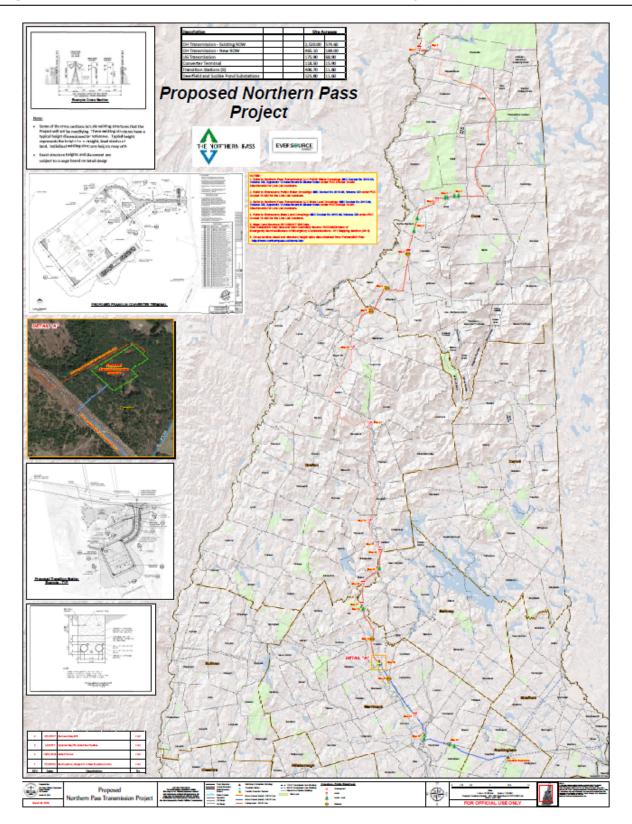


Figure 2: Pittsburg, Stark, Northumberland, Lancaster, Dalton

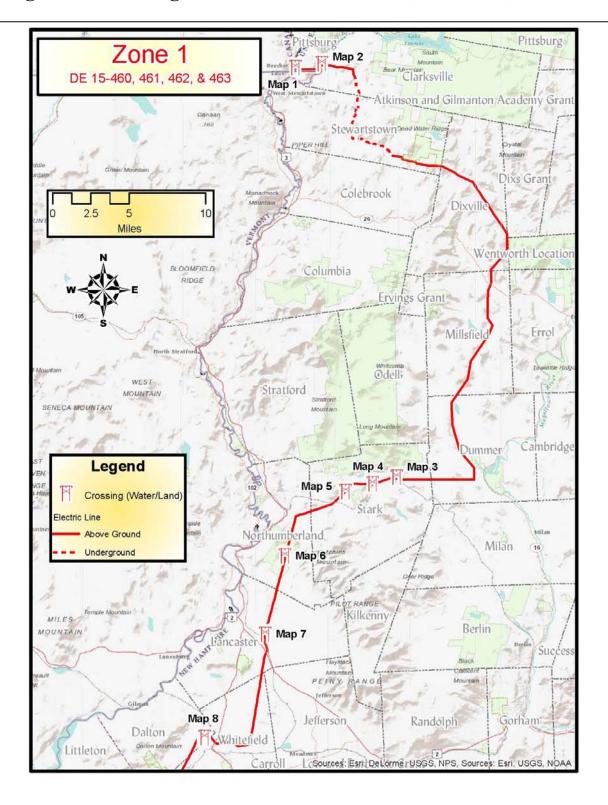


Figure 3: Bethlehem, Franconia, Woodstock, Plymouth

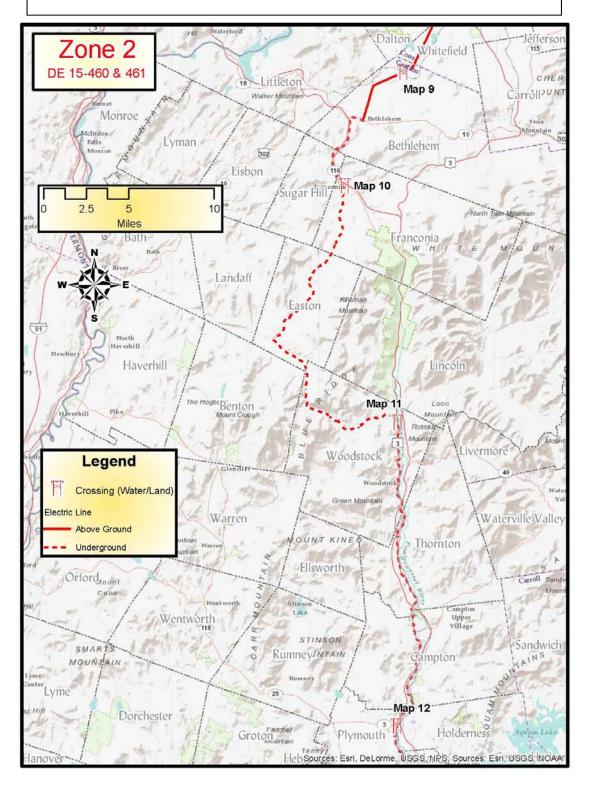


Figure 4: Bridgewater, Ashland, New Hampton, Bristol, Hill, Franklin

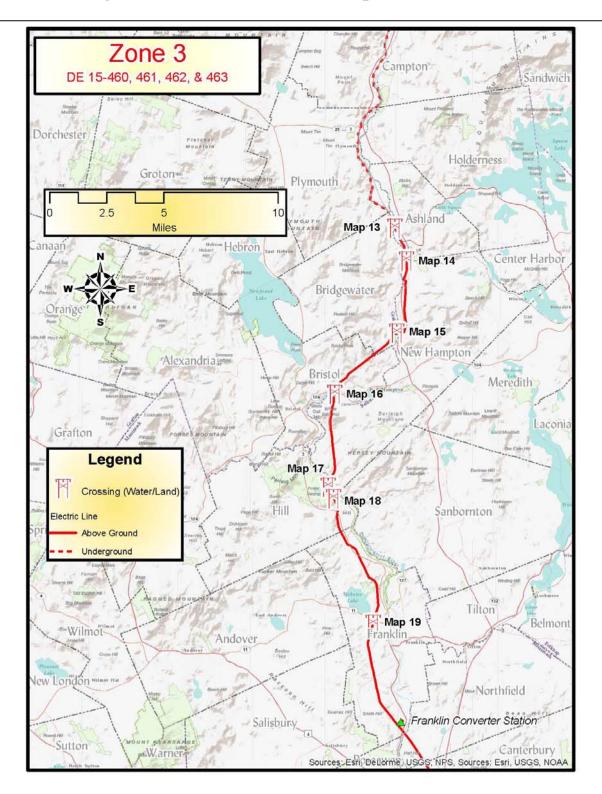
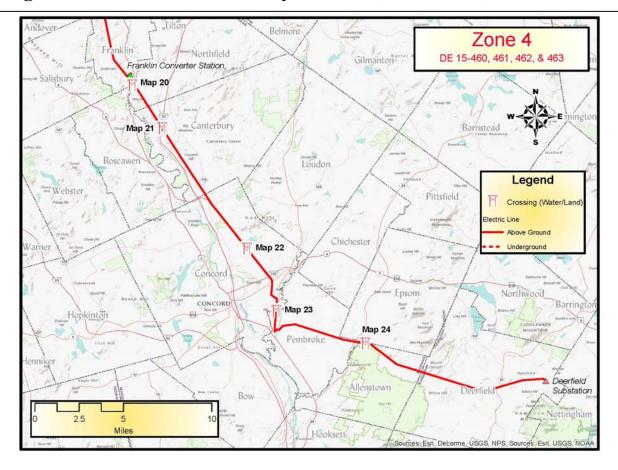


Figure 5: Franklin, Canterbury, Concord, Pembroke, Allenstown



#### **B.** Scoping Limitations of Staff's Review

Commission Order No. 25,910 issued on June 28, 2016, provides clarity to the Commission Staff regarding the scope of our review of petitions for licenses to cross public waters and public lands pursuant to RSA 371:17 and RSA 371:20. "The Commission interprets these statutes to direct the focus of its inquiry when considering a crossing license petition to be on the proposed crossing's effects on the public rights in the waters or lands in question. The provision of RSA 371:17 regarding the proposed crossing being "necessary, in order to meet the reasonable requirements of service to the public" is a threshold matter that the petitioner meets if the reason for the crossing is to provide a service that historically has been provided by a public utility." In this order the Commission found that the NPT and ESE crossings meet the threshold requirement of necessary for service to the public under 371:17. With regard to 371:20, the order provides that "the Commission will limit its review of the proposed crossings under RSA 371:20 to the functional use and safety of the proposed crossings, and all licenses shall be contingent upon Site Evaluation Committee approval of the project." With the scope clearly defined by Commission order, Staff's review under RSA 371:20 focused on the functional use and safety of the proposed crossings. Issues related to environmental and aesthetic aspects of the project remain under SEC review.

#### C. Standard Review

As Staff conducted its review of the petitions for each of the public waters and lands crossings it must first consider the Commission interpretation of RSA 371:20, which directs the focus of its inquiry when considering a crossing license petition to be on the proposed crossings' effects on the public rights in the waters or lands in question. More specifically, the proposed crossings must not interfere with the public's rights to the functional use and safety of the waters or lands at the proposed crossings locations. The functional use by the public in and around these crossing locations may vary from one site to the next. It is necessary for Staff to review how the public may use the waters and lands in each of the proposed crossing locations, and then assess the crossing information provided in each petition, to determine whether or not the rights of the public in these waters or lands have been harmed. The standard of review that Staff used for determining the adequacy of any petition for a public water or land crossing relies primarily on the guidelines provided in the most currently available version of the National Electric Safety Code (NESC). NESC Codes are the industry standard used by project developers and utility operators for the design, construction, operation and maintenance of electric distribution and transmission systems. Throughout this review, Staff references technical design specifications provided in the petitions for each crossing and identifies key NESC codes that were used to make its assessments of conformance for the proposed crossings.

### **D.** Crossings Not Requiring Licenses

There were six crossings of public waters that were submitted by NPT and ESE including underwater and overhead that Staff reviewed and concluded that they did not meet the current definitions of public waters. They were as follows:

- 1) DE 15-460, Part B, Ham Branch Crossing 1 in Easton (underground) by NPT
- 2) DE 15-460, Part B, Ham Branch Crossing 2 in Easton (underground) by NPT
- 3) DE 15-460, Part B, Ham Branch Crossing 3 in Easton (underground) by NPT
- 4) DE 15-460, Part B, Gordon Pond Brook Crossing in Woodstock (underground) by NPT

- 5) DE 15-460, Appendix 17, Lamprey River, Deerfield (overhead) by NPT
- 6) DE 15-462, Table 1 Appendix 15, Lamprey River, Deerfield (overhead) by ESE

The crossings in Easton and Woodstock are not considered a public river or stream and are not listed on the DES official list of public rivers and streams. See <a href="http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/olpw.pdf">http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/olpw.pdf</a>

This portion of the Lamprey River in Deerfield is not considered a public river or stream and is not listed on the DES official list of public rivers and streams. There are other portions of the Lamprey River in Deerfield and other towns that are considered public waters but the location of where the crossings are to occur is upstream of those designated portions.

The Staff has consistently used the Official List of Public Waters in New Hampshire compiled by the DES as the publication resource for determining public waters. Over the years, as more data has been collected and more information has become available the list of public waters has evolved from those that may have been designated 50 to 70 years ago when much of the electrical transmission infrastructure was initially constructed by ESE.

#### E. Methodology Used in Verifying Overhead Clearances Lands, Rails and Rivers

Staff completed an extensive process of trying to verify calculated clearances made in the petitions of (DE 15-460 (NPT) and DE 15-462 (ESE)) and public lands including state owned railroads (DE 15-461 (NPT) and DE 15-463 (ESE)).

Staff used various inputs presented in each of the Appendices of the petitions, the diagrams presented, responses to data requests for materials, spans, heights, and other pertinent data to compile individual single span models using commercial software (SAG 10) that is used within the electric industry and has been used in previous docket submittals by electric providers in New Hampshire.

Of the 67 crossings that were petitioned, 8 were for underground crossings and 2 were eliminated per paragraph D above. This left a remaining 57 overhead or aerial crossings that were analyzed. This was further broken down into types:

Land Crossings: 15 crossings total (8 by NPT and 7 by ESE)
Rail Crossings: 12 crossings total (6 by NPT and 6 by ESE)
Water Crossings: 30 crossings total (16 by NPT and 14 by ESE)

NPT and ESE used a more complex model PLS-CADD from Power Line Systems that uses a 3 dimensional model in which data taken from LIDAR measurements (high resolution 3D survey information) are used and can account for slopes across a cross section where as Staff's elevations were only from the centerline of the structure. Both models were able review inclined spans and account for tensions on the conductors.

Staff determined what verification results would be considered acceptable as follows. If results of the Staff Verification came out within +/-3 ft of clearance presented then the results were considered accurate given the large amounts of data required for the models and that modeling using two different software packages would be expected to vary. The model output variance is what determined Staff's

margin of safety characterization determination that considered the verification as either "Excellent, Good, Acceptable or Unacceptable". Table 2 gives results of 54 of the 57 aerial verifications.

Table 2			57 OVERI	HEAD (AERIAL)	Crossings	
Results Considered	Clearance Variances between Staff Model and Petition	Results Considered	Qty Land Crossings	Qty Rail Crossings	Qty Water Crossings	Locations (Staff Zone-Map #)
Excellent	+/- 3ft	Excellent	6	7	25	1-1, 1-4, 1-5, 1-6, 1-7, 1-8, 2-9, 3-14, 3-15, 3-16 3-17, 3-19, 4-20, 4-21, 4-22, 4-23, 4-24
Good	+/- 4ft to 6ft	Good	7	1	4	1-3, 1-7, 3-13, 3-15, 3-16, 3-18, 4-20, 4-21 4-23, 4-24
Adequate if Margin above NESC requirement is 25% more than variance	+/-6 ft to 15 ft	Acceptable	3	0	1	1-3, 1-4, 3-17, 4-20
Inadequate	> 15 ft	Not Acceptable	0	0	0	None
		Subtotal	16	8	30	
				54		3 Rail Crossings not Calculated

For details of the exact clearances and those required by the NESC for overhead crossings within each zone refer to Table 2 within each of the individual recommendations 1 through 4.

In all cases the dominating scenario which yielded the lowest clearance was the situation where 115 kV AC and 345 kV AC conductors were thermally stressed to 285 degrees Fahrenheit while the 320 kV DC were thermally stressed to 130 degrees Fahrenheit.

#### E1. Overhead Water Crossings

The proposed Connecticut River in Pittsburg crossing may meet the applicable activities that trigger an individual permit or a general programmatic permitting review from the Army Corps of Engineers. The Connecticut River is a navigable river subject to the Army Corps of Engineers jurisdiction. The Staff recommends that NPT notify the Army Corps of Engineers about the project.

All water crossings used the DES official list of public rivers and streams for determination if they were considered public waters. See

http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/olpw.pdf

Water elevations used both the 10 year flood and 100 year flood available information. Only the 10 year flood elevation is suggested by the NESC. Using 100 year flood available information is conservative and would yield a lower clearance result.

DES would consider any other shoreland permits or other water quality related permitting required as part of the overall review of environmental permits required for the entire Northern Pass project. All of these submittals can be found on the Site Evaluation Committee's website.

## E.2. Overhead Land Crossings

For land crossings the largest span typically yielded the largest sags unless there was a steep change in topography. Table 4 listed all the crossings where the largest spans were analyzed. 11 of 15 largest spans yielded the lowest clearances.

Table 4			15	OVERHEAD	(AERIAL) La	and Crossing	zs
Land Crossing	Longest Span	Span Used	Zone/Map	NPT/ESE	Circuit	Voltage	Comments
Nash Stream Forest	712.08	712.08	1-3	NPT	3120	320 kV DC	Used Longest Span
Nash Stream Forest	686	506.73	1-3	ESE	O154	115kV AC	Did not Use Longest Span
Percy State Forest	591.52	591.52	1-4	NPT	3120	320 kV DC	Used Longest Span
Percy State Forest	607.97	607.97	1-4	ESE	O154	115kV AC	Used Longest Span
Cape Horn State Forest	762	442.57	1-6	NPT	3120	320 kV DC	Did not Use Longest Span
Cape Horn State Forest	763	481.43	1-6	ESE	D142	115kV AC	Did not Use Longest Span
NH DOT/State Firing Range	601.98	601.98	3-15	NPT	3120	320 kV DC	Used Longest Span
NH DOT/State Firing Range	692.46	692.46	3-15	ESE	E115	115kV AC	Used Longest Span
William H Thomas State Forest	776.8	776.8	3-18	NPT	3120	320 kV DC	Used Longest Span
NH DOT Vacant Land	738.56	738.56	4-20	NPT	3132	345 kV AC	Used Longest Span
NH DOT Vacant Land	503.02	503.02	4-20	ESE	F139	115kV AC	Used Longest Span
NH AG	919	799.56	4-23	NPT	3132	345 kV AC	Did not Use Longest Span Longest Span used with corresponding Soucook River crossing
NH AG	1172.27	1172.27	4-23	ESE	P145	115kV AC	Used Longest Span did include river crossing also
NH AG	1172.27	1172.27	4-23	ESE	C189	115kV AC	Used Longest Span did include river crossing also
Bear Brook State Park	596.3	596.3	4-24	NPT	3132	345 kV AC	Used Longest Span

SAG 10 was able to calculate the lowest clearance point and measured the distance from the nearest structure.

All proposed land crossings were aerial.

There were five discrepancies of State Land Parcels between the petitioner's attachments and PUC generated detailed maps. These discrepancies emanated from the source material used to create maps. This resulted in differing descriptions of the total length of the crossing and may have an impact on the descriptions of the parcel boundaries and the description of the amount of state land crossed that is being granted for a license.

These five discrepancies occurred at Nash Stream Forest, Percy State Forest, Cape Horn State Forest, William H Thomas State Forest and Bear Brook State Park:

#### a. PUC detailed Map 3 for Nash Stream Forest:

The parcel data from the conservation land layer of NH Granite used by the PUC, the parcel data from NPT, and the verified survey information submitted by DRED all differed. The PUC decided to use the DRED survey data since the source information was thought to be first hand.

- The Staff of the PUC used the DRED survey lines as the actual length of the state land license being sought. The difference resulted from 4,335 feet amount of land license required and NPT seeking approximately 4,097<sup>5</sup> feet amount of land petitioned, yielding a 238 foot difference. [actual license needed is 238 feet more than requested]
- This did not affect the amount of poles depicted with the Nash Stream Forest.

#### b. PUC detailed Map 4 for Percy State Forest:

The parcel data from the conservation land layer of NH Granite used by the PUC, the parcel data from NPT, and the verified survey information submitted by DRED all differed. The PUC decided to use the DRED survey data since the source information was thought to be first hand.

- Here the net results were much closer. The Staff of the PUC used the 1,892 foot dimension from data generated by the DRED survey. The difference resulted from 1,892 feet amount of land license required and NH Granite information seeking 1,796 feet amount of land petitioned, yielding a 98 foot difference. [actual license needed is 98 feet more than requested if using the NH Granite data]
- Even though the PUC and the NPT used the same NH Granite data, there was a large discrepancy as to where the boundaries of Percy State Forest were.
- This did not affect the amount of poles depicted with the Percy State Forest.

#### c. PUC detailed Map 6 Cape Horn State Forest:

- The Staff of the PUC used survey data by DRED which matches very well with conservation land of NH Granite. Unfortunately parcel data from NPT does not match well.
- PUC detailed Map 6 shows the white line which represents parcel boundary data submitted by NPT. This indicates that NPT and ESE are seeking license for two additional structures shown within ROW that are not required. Two structures are

identified at northern end (DC-486 and D142-322) that does not really need to be within the license.

• White line is parcel boundary from NPT and ESE and yields a 12,547 and 12,560 ft respective traverse of state land while the PUC generated detailed map says the requirement is 12,609 feet. [actual license needed is 62 and 49 feet more than requested]

#### d. PUC detailed Map 18 William H Thomas State Forest:

The parcel data from the conservation land layer of NH Granite agreed very well with verified survey information submitted by DRED in response to the discrepancy. ESE and NPT's depiction of the parcel data does not line up exactly with the DRED survey lines.

- Result is ESE A111 line is located within State land more than identified within the petition. ESE did not plan on relocating the line A111 so the petition for ESE did not seek a license.
- ESE application shows there are 6 structures within State Land while the PUC detailed generated map 18 displays there are 9 structures within the State Lands. The differences are depicted as structures A111-77, A111-76 and A111-72.
- This has no impact on NPT's planned license requirement of 2,954 ft as shown on PUC detailed generated Map 18.

#### e. PUC detailed Map 24 Bear Brook State Park:

The parcel data from the conservation land layer of NH Granite used by the PUC, the parcel data from NPT, and the verified survey information submitted by DRED all differed. The PUC decided to use the DRED survey data since the source information was thought to be first hand.

- The difference found is from a minor discrepancy at the Eastern boundary.
- This only represents 4,270 foot license requirement if using DRED survey lines compared to 4,272 foot license requirement if using the NH Granite information.
- Even though the PUC and the NPT used the same NH Granite data, there was a large discrepancy as to where the boundaries of Bear Brook State Park were at the Eastern boundary.
- This does place ESE G146-110 and NPT Structure 3132-227 outside the Bear Brook State Park.

#### E.3 Overhead Rail Crossings

Only state rail crossings require licensing. The licenses for Rail Trail Corridors assume as if the rail were to be replaced when considering clearances.

#### F. Methodology Used for Evaluating Underground Crossings for Waters

Staff reviewed four of eight underground crossings. Of the four reviewed, three were for underground crossings of rivers with use of directional drill (trenchless technology). The bend radii were comprised of large 1200 ft sweeps that had clearances from the river bottoms varying between 10 and 25 feet. These four underground crossings were all in Zones 1 and 2. Each directional drill had to be separated between 5 ft and 25 ft apart for the positive and negative poles of the DC circuit. The 8 inch nominal diameter conduit will enclose cross linked polyethylene XLPE covered 2500 sq. mm conductors.

There was a single microtunnel proposed at the Gale River that has a 36 inch diameter steel casing with two separate 8 inch diameter high density polyethylene conduits for the DC conductors. Thermal grout will be used to fill the voids between the 8 inch diameter cables and communication cables. Communication cables included are 3 inch diameter conduits within the casing for fiber optic communications, heat sensing cables for finding faults and an empty cable duct.

#### G. Review of Locations where existing circuits located in the ROW were not previously licensed

As a general condition, Staff believes before a new license is issued for a particular crossing, a review should be made if previous licenses were required for existing circuits located within the same crossing.

In some instances such as land crossings, existing circuits were installed prior to the parcel becoming property of the State. In those instances a license is not required if the circuit is remaining in place and no changes are made to conductors or heights of structures. If the existing circuit is being relocated, structures heighted, communication cables added, conductors replaced or realigned and various other alterations then a new license is issued. The license description or evidence within the docket should provide enough details either within Staff's recommendation or within the petition itself to accurately describe the applicability of the license.

Over the years the public waters definition has expanded and now includes segments of rivers that once were not considered. For many years navigability was a factor applied to public waters. The Commission now relies on the public resource listed in Section D above provided by DES that describes the public waters as it relates to RSA 371:17.

Staff noted some of the references to previous licenses granted by the Commission within the petition were in error and Staff evaluated all the previous licenses as well for applicability.

Staff believes after reviewing the crossings in detail for the Northern Pass Project that licenses should be filed for the following locations that were previously unlicensed by Eversource. Both Staff and Eversource researched respective files to determine if previous licenses existed and neither could produce an applicable license. The following locations should be petitioned by Eversource for licenses by today's standards regardless of whether the Site Evaluation Committee denies or approves the Northern Pass Project. They are:

- 1. Johns River, Dalton Q195 Circuit 115kV PUC detailed map 8
- 2. Johns River, Dalton X178 Circuit 115kV PUC detailed map 8
- 3. Ammonoosuc River, Bethlehem, X178 Circuit 115kV PUC detailed map 9

- 4. Ammonoosuc River, Bethlehem, 348 Circuit 34.5kV PUC detailed map 9
- 5. Gale River, Franconia 348X1 Circuit 34.5 kV PUC detailed map 10
- 6. Pemigewasset River, Bridgewater E115 Circuit 115kV PUC detailed map 13
- 7. Squam River, Ashland E115 Circuit 115kV- PUC detailed map 14

## H. Rights of Way

Existing Right of Ways varied in width at each of the crossings. They varied from 120 ft to 375 ft. Three of the crossings contained natural gas pipelines that vary in pressure from 200 psig to 1440 psig. One of the Right of ways contained a circuit of New Hampshire Electric Cooperative.

	TAB	LE 3 ROW WIDTH	and ENE	RGY INFRAS	TRUCTURE	WITHIN		
Staff Zone-Map #	Water/ Land Name	Town	NEW	Relocated	Existing Not Relocated	Foreign (Gas)	Totals	ROW
1-1	Halls Stream	Pittsburg	1	0	0	0	1	120
1-2	Connecticut River	Pittsburg	1	0	0	0	1	within DOT ROW
1-3	Nash Stream Forest	Stark	1	1	0	1	3	150
1-4	Percy State Forest	Stark	1	1	0	1	3	150
1-5	Upper Ammonoosuc River	Stark	1	1	0	1	3	150
1-6	Cape Horn Forest	Northumberland	1	1	0	0	2	150
1-7	Otter Brook	Lancaster	1	1	0	0	2	150
1-7	Israel River	Lancaster	1	1	0	0	2	150
1-7	NHDOT RR	Lancaster	1	1	0	0	2	150
1-8	NHDOT RR	Dalton	1	1	2	0	4	275
1-8	Johns River	Dalton	1	1	2	0	4	275
2-9	NHDOT RR	Bethlehem	1	0	2	0	3	265
2-9	Ammonoosuc River	Bethlehem	1	0	2	0	3	265
2-10	Gale River	Franconia	1	0	1	0	2	within DOT ROW
2-11	Moosilauke Brook	Woodstock	1	0	1	1	3	within DOT ROW
2-12	Baker River	Plymouth	1	0	0	0	1	within DOT ROW
3-13	Pemigewasset River	Bridgewater	1	0	1	0	2	225
3-14	Squam River	Ashland	1	0	1	0	2	225
3-15	NHDOT	New Hampton	1	1	0	0	2	150
3-15	Pemigewasset River	New Hampton	1	1	0	0	2	150
3-16	Pemigewasset River	Bristol	1	1	0	0	2	225
3-17	Pemigewasset River	New Hampton	1	1	0	0	2	225
3-18	W.H. Thomas Forest	Hill	1	0	1	0	2	225
3-19	Northern Rail Trail	Franklin	1	2	1	0	4	375
3-19	Chance Pond	Franklin	1	2	1	0	4	375
4-20	Northern Rail Trail	Franklin	1	1	1	0	3	225
4-20	NHDOT Land	Franklin	1	1	1	0	3	225
4-20	Merrimack River	Franklin	1	1	1	0	3	225
4-21	NHDOT RR	Canterbury	1	1	1	0	3	225
4-22	Turtle Pond	Concord	1	2	1	0	4	257.5
4-23	Soucook River	Concord	1	2	0	1	4	265
4-23	NHAG Land	Pembroke	1	2	0	1	4	265
4-24	Suncook River	Pembroke	1	0	1	0	2	150
4-24	Bear Brook Park	Allenstown	1	0	1	0	2	150
	= NHEC Circuit							

#### I. Functional Uses

Staff considered functional uses of state lands to see if it was compatible with overhead crossings. All the state land crossings already had electric transmission facilities currently traversing them. Staff sent out and collected information from DRED, DOT and AJ on uses of land and whether they were existing concerns of ESE's use of the ROWs traversing the lands or future concerns. None of the agencies had any concerns about use being impeded by the crossings. See Attachment B for copies of letters received from the agencies.

Functional uses for state lands considered were:

#### Identified functional uses for State Rail Corridors are:

- Commercial freight transportation on active railroads) both seasonally and year round
- Recreational cross country skiing
- Recreational snowmobiling
- Recreational snowshoeing
- Dogs sledding and dog sled training
- Recreational use for bicycling, walking, hiking, running, orienteering.
- Local community events such as 5K races

#### <u>Identified functional uses for DOT land are:</u>

- Outdoor State Police practice firing range
- Highway buffer and possible future use

#### Identified functional uses for Adjutant General's land are:

- Land use associated with New Hampshire National Guard Regional Training Institute
- Future 24 foot wide drive to Army National Guard Readiness Center
- Field training exercises

# <u>Identified functional uses for New Hampshire Department of Resources and Economic Development land are:</u>

- Traditional hunting and trapping use
- Recreational snowmobiling and cross country skiing
- Timber management
- Walking trails

Staff anticipates no detrimental conditions in regards to functional use as a result of the 61 crossings reviewed.

#### J. Communication Cables.

While not the primary purpose of the proposed crossings, a communication cable type OPGW will be at the uppermost of each structure. It serves a dual purpose by acting as a shield wire and

communication cable. The communication cable clearances by default will not be the lowest cable on the structures and therefore easily meet the NESC requirements.

NPT intends to use an OPGW (Optical Guide Wire) cable. NPT plans to use a cable that contains 48 fibers for communication. NPT plans on this cable being approximately 0.5" in diameter with a rated breaking strength of approximately 27,000 pounds. The tension for this OGPW will be limited to approximately 5,400 pounds during the NESC Heavy district loading case.

For underground cables, a fiber optic communication cables will be used as well. For directional drill installations these will be attached to the 8 inch diameter conduits so they can be made with a single back pull. For the single microtunnel construction technique they will float within the 24 inch diameter casing.

#### **End Notes**

<sup>&</sup>lt;sup>1</sup> NPT requested licenses at 25 public water locations DE 15-460 (17 overhead, 8 underground) NPT requested licenses at 14 public lands and railroads DE 15-461 (14 overhead – 8 DRED, 5 DOT, 1 AJ) ESE requested licenses at 15 public water locations DE 15-462 (9 - 115kv, 2- 34.5kv, 4 new locations overhead D142 at 2 locations, 348X at one location, P145 at one location) ESE requested licenses at 13 public land locations DE 15-463 (overhead)

<sup>&</sup>lt;sup>2</sup> For review purpose 320 kVolts DC is equivalent to 392 kVolts AC when reviewing clearances

<sup>&</sup>lt;sup>3</sup> Staff's mapped crossing locations may include more than one circuit crossing public waters or lands. In most cases, licenses will be required for each circuit crossing at the identified locations.

<sup>&</sup>lt;sup>4</sup> Commission in Order No. 25,953 in DE15-459 found granting NPT public utility status to be in the public good. See Order pg 11 line 17 and pg 12 line 7.

<sup>&</sup>lt;sup>5</sup> 4097 ft is estimated from using the NH Granite data which is approximately differed at the east end of the parcel and west end of the parcel by the same amount.

	T	AH	ACHIVIENT A	1-North	ern Pas	s irans	mission Cro	ssings (Pub	olic Waters & .	State Lands) IV	laster Spreadsheet .	SOKIEL	) BY MAP	GEUG	KAPHI	CALLY FROI	W NOKI	H TO SOUTH					
NPT SEC Docket #  NPT SEC Volume #  NPT SEC Appendix #  NPT SEC Attach#  NPT SUA App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map #	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Relocated Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Previously Licensed? Docket #, Order #, Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot #	Deed Date	Book	Page #	Bates Page #
2015-06 Vol XIII App 12 Attach B- Master Indx	NA	15-460 App 1	NA	Pittsburg	1	TBD	Halls Stream	DC	DC-HQ-1 / DC-1	NONE	NONE	A-W	Public Water	Y	None	Not Necessary	1	167	A-1/6W/5 A-1/6W/2	8/25/2015 8/25/2015	1426 1426	741 738	attach.
Sub App 1  2015-06  Vol XIII  App 12  Attach B- Master Indx  Part B	NA	15-460 Part B	NA	Pittsburg	2	161	Connecticut River	DC	S1 LL 161	NONE	NONE	U-W	Public Water	Y	None	Not Necessary	2	201 161 (Water) 162 (Rt. 3) 162.01 (Rt. 3) 400	A-1/29/2 / / / R7/NA/1	4/5/2012 / / / / 9/8/2011	1347 / / / 1338	448 / / / 781	attach. / / / attach.
2015-06 Vol XIII App 13 Attach B - Master Indx Sub App1	2015-06 Vol XIII App 15 Table 1	15-461 App 1	15-463 Table 1 App 1	Stark	3	12519	Nash Stream Forest (DRED) (1988 Purchased)	DC/115kV	DC-403 / DC-394	O-154	0154-50 / 0154-41	A-L	State Land	NA	None	Not Necessary	42, 43	12519 12516 12527	406/NA/4 405/NA/4 406/NA/3	8/27/1946 5/20/1946 6/7/1947	359 346 354	134 341 285	1390 1438 1382
2015-06 Vol XIII App 13 Attach B - Master Indx Sub App2	2015-06 Vol XIII App 15 Table 1	15-461 App 2	15-463 Table 1 App 2	Stark	4	12547	Percy State Forest (DRED) (1988 Purchased)	DC/115kV	DC-420/ DC-415	O-154	O154-67/ O154-62	A-L	State Land	NA	None	Not Necessary	44	12541 12547 12548	204/NA/2 204/NA/1 411/NA/2	5/22/1946 5/20/1946 7/9/1946 5/8/1946 5/12/1946 6/7/1947	346 346 346 346 346 354	343 341 362 354 357 285	1442 1438 1434 1430 1426 1382
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 2	2015-06 Vol XIII App 14 Table 1	15-460 App 2	15-462 Table 1 App 1	Stark	5	12556	Upper Ammonoosuc River	DC/115kV	DC-434 / DC-435	0-154	0154-81 / 0154-82	A-W	Public Water	Y	None	Not Previously Licensed	46	12554 12556 (Water) 12557.01 (Lunn Rd) 12557	410/NA/5 / / 410/NA/2	5/7/1947 5/23/1946 / / 7/9/1946 05/07/1946	346 / / 346 346	360 / / 355 352	1382 1422 / / 1418 1414
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 3	2015-06 Vol XIII App 15 Table 1	15-461 App 3	15-463 Table 1 App 3	Northumberland	6	2030, 2034, 2037	Cape Horn State Forest (DRED) (1988 Purchased)	DC/115kV	DC-485/ DC-507 Diff. Boundary	D-142	D142-321/ D142-344	A-L	State Land	NA	None	Not Necessary Original Install D-142 predates State Land ownership	51, 52, 53, 54	2026 2034 2030 2035.01 (Page Hill Rd) 2037 2036.01 2036.02	231/NA/1 247/NA/7 234/NA/17 / 247/NA/1 247/NA/2(2) 247/NA/2(3)	7/22/1947 8/27/1947 8/21/1947 8/21/1947 8/12/1947 / NYA 8/12/1947 8/12/1947	359 359 359 368 / NYA 368	317 324 311 2 / NYA 1	460 480 472 484 / NYA 476
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1						DC-536 / DC -537		D142-373 / D142-374					Not Previously		2036.03	247/NA/2(4) R11/NA/77	8/12/1947 7/29/1947 8/27/1947	368 359	299	476 524 616
App 12 Attach B- Master Indx Sub App 3	App 14 Table 1	Арр 3	App 2	Lancaster	7	2233, 2234	Otter Brook	DC/115kV	flood overlap	D-142	(373-376 in docket)	A-W	Public Water	Y	None	Licensed	57	2234	R11/NA/76	7/29/1947 8/22/1947	359 359	299 278	524
2015-06 Vol XIII App 12 Attach B- Master Indx	2015-06 Vol XIII App 14 Table 1	15-460 App 4	15-462 Table 1 App 3	Lancaster	7	2235	Israel River	DC/115kV	DC-538 / DC-539 flood overlap	D-142	D142-375 / D142-376 (373-376 in docket)	A-W	Public Water	Y	None	Not Previously Licensed	58	2235 (Water) 2234	/ R11/NA/76	/ 8/22/1947	359	278	532
Sub App 4 2015-06 Vol XIII App 13 Attach B- Master Indx	2015-06 Vol XIII App 15	15-461 App 4	15-463 Table 1 App 4	Lancaster	7	2236	State of NH Railroad (Groveton Branch) (NHDOT)	DC/115kV	DC-539 / DC-540	D-142	D142-376 / D142-377	A-R	Railroad	NA NA	None	Not Necessary Original Install D-142 predates	58	2234 2236 (RR)	R11/NA/76	8/22/1947	359	278	532
Sub App 4	Table 1						(MIDOI)									Not Previously Licensed		2237 2819 (RR) 2825 (Wetland)	R17/NA/29 / 413/NA/71	8/22/1947 / 4/9/1953 10/3/1947 4/9/1953	359 / 397 359 397	278 / 108 329 108	532 / 1547 1495 1547
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 5	2015-06 Vol XIII App 14 Table 1	15-460 App 5	15-462 Table 1 App 4	Dalton	8	2825, 2826	Johns River	DC/34.5kV	DC-622A/DC-621 flood?	348X	348X-013 / 348X-017 flood zone	A-W	Public Water		Q195-11 / Q195-12 X178- 576 / X178-577	Original install X178 in 1953 & Q195 in 1958 Johns River not on 1947 PW list would need license by today standards	68	2826 (Wetland) 2831 2832 2833	413/NA/66 413/NA/67 413/NA/68 413/NA/62	10/3/1947 4/9/1953 10/3/1947 4/9/1953 10/3/1947 4/9/1953 10/3/1947	359 397 359 397 359 397 359	329 108 329 108 329 108 329	1495 1547 1495 1547 1495 1547 1495
2015-06 Vol XIII	2015-06 Vol XIII	15-461	15-463 Table 1	Dalton	0	3810	State of NH Railroad	DC/24 Flav	DC 620 / DC 621	2400	2469 011 / 2469 012	A.D.	Dailtead	NA.	X178-578 / X178-577	Not Necessary Original Install X178 in 1953 & Q195	67	2833.03 (for ref.) 2818	413/NA/5 413/NA/75	9/23/2015 9/26/1947 3/19/1953 5/22/1953 9/17/1947	359 1428 359 398 397 359	393 393 331 26 204 288	1495 1460 1499 1535 1549 1491
App 13 Attach B- Master Indx Sub App 5	App 15 Table 1	App 5	App 5	Dalton	8	2819	(NHDOT)	DC/34.5kV	DC-620 / DC-621	348X	348X-011 / 348X-012	A-R	Railroad	NA	Q195-10 / Q195-11	in 1958 predates State Rail ownership of 1999	67	2819 (RR) 2825 3110 (Rt. 116)	/ 413/NA/71 /	/ 4/9/1953 10/3/1947 /	/ 397 359 /	/ 108 329 /	/ 1547 1495 /
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 6	NA NA	15-460 App 6	NA	Bethlehem	9	3114	Ammonoosuc River	DC	DC-662 / DC-663	NA	NA NA	A-W	Public Water	Y	X-178, 348 X178-505 / X178-506 348(unkown)	Not Previously Licensed	73	3109 (RR) 3108 3113 3114 (Water)	406/36/NA 406/39/NA /	3/05/1953 10/2/1947 3/05/1953 10/2/1947 / 3/05/1953	/ 834 773 834 773 /	/ 243 35 243 35 / 243	/ 1617 1563 1617 1563 / 1617
																		3115	406/37/NA	10/2/1947	773	35	1563

		ATI	ACHMENT A	11-North	ern Pas	ss Trans	mission Cro	ssings (Pub	lic Waters &	State Lands) IV	laster Spreadsheet .	SORTED	BY MAP	GEOG	RAPHI	CALLY FROM	1 NORT	н то ѕоитн					
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT Sub App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map#	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Relocated Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Previously Licensed? Docket #, Order #, Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot#	Deed Date	Book	Page #	Bates Page #
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 6	NA NA	15-461 App 6	NA	Bethlehem	9	3109	State of NH Railroad (NHDOT)	DC	DC-662 / DC-663	NA	NA NA	A-R	Railroad	NA	X-178, 348 X178-507 / X178-506 348(unknown structure names)	Not Necessary Original Install X178 in 1953 & 348 in 1969 predates State Rail ownership of 1999	73	3110 (Rt. 116) 3109 (RR) 3108 3113 3114 (Water) 3115	/ / 406/36/NA 406/39/NA / 406/37/NA	/ 3/05/1953 10/2/1947 3/05/1953 10/2/1947 / 3/05/1953 10/2/1947	/ / 834 773 834 773 / 834 773	/ / 243 35 243 35 / 243 35 /	/ 1617 1563 1617 1563 / 1617 1563
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA NA	15-460 Part B	NA	Franconia	10	3645.01	Gale River	DC	NONE	NA	NA	U-W	Public Water	Y	348X1 unknown underground)	Not Previously Licensed on PW1947 list Staff didnt request info of license for 348X1	81	3645.01 (Water)	/	/	/	/	/
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Woodstock	11	4123.01	Moosilauke Brook Crossing	DC/34.5kV	NONE	NA	Unknown	U-W	Public Water	N	3126		101	Rt. 3					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Plymouth	12	5342.01	Baker River	DC	NONE	NONE	NONE	U-W	Public Water	Y	None	Not Necessary	119	5340.01 (Rt. 3) 5342.01 (Water)	?	?	? /	? /	?
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 7	NA	15-460 App 7	NA	Bridgewater	13	5813.01	Pemigewasset River	DC	DC-1099 / DC-1101 flood?	NA	NA NA	A-W	Public Water	Y	E-115 E115-228 / E115-231	Not Previously Licensed E115 installed in 1953 Pemi on PW 1947 list	124	5812 5813.01 (Water) 5530	202/12/NA / 4/1/1	NYA / 12/2/1965	NYA / 1029	NYA / 174	NYA / 824
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 8	NA NA	15-460 App 8	NA	Ashland	14	5538, 5542	Squam River	DC	DC-1113 / DC-1114	NA	NA	A-W	Public Water	Y	E-115 E115-211 / E115-212	Not Previously Licensed E115 installed in 1953 Squam River not on PW 1947 list	126	5538 5542	3/3/2	9/12/1952 9/24/1952 8/25/1928 8/11/1928 3/6/1930 10/15/1952	829	237 363 459 523 64 482	867 874 878 890 884 876
2015-06 Vol XIII App 12 Attach B - Master Indx	2015-06 Vol XIII App 14 Table 1	15-460 App 9	15-462 Table 1 App 5	New Hampton	15	6145.03	Pemigewasset River	DC/115kV	DC-1144 / DC-1145	E-115	E115-168 / E115-167	A-W	Public Water	Y	None	DE 76-22 12,219 4/21/1976 (76-22-3, pg. 12)	129	6145.02 6145.03 (Water) 5813	R16/NA/3 / 209/NA/11	9/18/1952 6/23/1932 / 9/4/1952	1524 204 / 829	815 219 / 241	786 29 / 869
Sub App 9  2015-06  Vol XIII  App 13  Attach B- Master Indx  Sub App 7	2015-06 Vol XIII App 15 Table 1	15-461 App 7	15-463 Table 1 App 6	New Hampton	15	6145	State of NH Land (NHDOT)	DC/115kV	DC-1141/ DC 1143	E-115	E115-171/ E115-169	A-L	State Land	NA	None	Not Prev Licensed Original Install E115 in 1953 doesn't predate State DOT ownership of 2/05/1952	129	6143 6143.02 (I93 Road) 6145 6145.01 (Rt. 132) 6145.02	R16/2/A / R16/1/NA / R16/NA/3	10/15/1952 / NYA / 6/23/1932	341	481 / NYA / 219	789 / NYA / 29
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 10	2015-06 Vol XIII App 14 Table 1	15-460 App 10	15-462 Table 1 App 6	Bristol	16	6441	Pemigewasset River	DC/115kV	DC-1174 / DC-1175	E-115	E115-123 / E115-122	A-W	Public Water	Y	None	DE 75-173 12,022 08/04/1975 (75-173-2, pg. 5)	133	6440 6441 (Water) 6146	222/NA/38 / R15/19/NA	8/21/1975 / 09/26/1952 09/01/1928		410 / 261 245	833 / 25 124
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 11	2015-06 Vol XIII App 14 Table 1	15-460 App 11	15-462 Table 1 App 7	New Hampton	17	6182	Pemigewasset River	DC/115kV	DC-1205 / DC-1206	A-111	A111-80A / A111-80	A-W	Public Water	Y	None	DE 76-22 12,219 04/21/1976 (76-22-18, pg. 1)	137	6181 6182 (Water) 6702 6701	R01/NA/20 / R1/NA/56 NA	7/28/1928 / 9/21/1928 09/21/1928 9/27/1928	188 / 502 502 502	242 / 82 31 34	121 / 340 409 367
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 8	NA NA	15-461 App 8	NA	Hill	18	5703, 6704, 670!	William H Thomas State Forest (DRED)	DC	DC-1208 /DC-1214	NA	NA NA	A-L	State Land	NA	A-111 A111-68 / A111-78 not on map	Not Necessary Original Install A-111 in 1953 predates State Land ownership of 4/21/2003	137	6703 6704 6705	R9/NA/13 R9/NA/18 R9/NA/25 R1/NA/56	7/15/1952 8/5/1952 9/22/1928 11/28/1952 9/27/1928 9/21/1928	715 502 725 502 502	470 468 37 292 206 82	326 312 435 338 373 340
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 9	2015-06 Vol XIII App 15 Table 1	15-461 App 9	15-463 Table 1 App 7 / 8	Franklin	19	7317.01	Northern Rail Trail (NHDOT)	DC/115kV/115kV	DC-1270/ DC-1271	M-127, F-139	M127-1A-1 / F139-343-342	A-R	Railroad	NA	V182 V182-269-268	Original Install of V182 in 1987 predates State Rail Corridor Ownership in 1995	143	7318 7317.01 (RR) 7316	76/NA/1 / 76/NA/5	9/21/1928 1/31/1976 / 5/8/1964 6/2/1951 12/10/1949 9/14/1928	/ 942 696 696	31 283 / 223 334 97 168	409 2 / 1114 1341 1124 1358
2015-06 Voli XIII App 12 Attach B- Master Indx Sub App 12	2015-06 Vol XIII App 1.4 Table 1	15-460 App 12	15-462 Table 1 App 8 / 9	Franklin	19	7315	Chance Pond	DC/115kV/115kV	DC-1271/ DC-1272	M-127, F-139	M127-1 - 2 / F139-342-341	A-W	Public Water	N	V182 V182-268-267	M127/F139: DE 87-131 18,782 08/04/1987 (87-131-1, pg. 20) superseded by V182 DE 08-064 24,859 5/30/2008	143	7322 7031.02 7031.01 7325 7326 7324 (Chance Pond Road) 7315 (Water) 7316	77/NA/402 77/NA/13 77/NA/12 77/NA/406 M6/77/15 / / 76/NA/5	NYA 10/3/1949 10/3/1949 8/14/1962 NYA 10/17/1949 NYA / 5/8/1964 6/2/1951 12/10/1949 9/14/1928	NYA 670 670 907 NYA 670 NYA / / 942 696 696 502	NYA 457 458 106 NYA 494 NYA / / 223 334 97 168	NYA 1128 1131 1106 NYA 1135 NYA 1134 1/ 1114 1341 1124 1358 NYA

		ATI	ACHMENT A	1-North	ern Pas	s Transı	mission Cro	ssings (Pub	olic Waters &	State Lands) N	Naster Spreadsheet 3	SORTED	BY MAP	GEOG	SRAPHI	CALLY FROI	VI NORT	H TO SOUTH	1 1				
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT Sub App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map#	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Relocated Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Previously Licensed?  Docket #, Order #,  Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot #	Deed Date	Book	Page #	Bates Page #
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 13	2015-06 Vol XIII App 14 Table 1	15-460 App 13	15-462 Table 1 App 10	Franklin	20	7077	Merrimack River	345kV/115kV	3132-4 / 3132-5	F-139	F139-281/F139-280	A-W	Public Water	Y	V182 V182-209 / V182-208	DE 76-22 12,219 03/12/1976 (76-22-10, pg. 10)	148	7076 7074 7075 (RR) 7077 (Water) 7402	27-C4/NA/401 126(27-C4)/NA/1 / / 82-R6/NA/402	NYA 12/5/1950 / / NYA	NYA 693 / / NYA	NYA 44 / / NYA	NYA 1261 / / NYA
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 10	2015-06 Vol XIII App 15 Table 1	15-461 App 10	15-463 Table 1 App 9	Franklin	20	7075	Northern Rail Trail (NHDOT)	345kV/115kV	3132-4 / 3132-5	F-139	F139-282 / F139-281	A-R	Railroad	NA	V182 V182-210 / V182-209	Original Install of V182 in 1987 and F139 in 1966 predates State Rail Corridor Ownership between 1975 & 1999	148	7070 7077 (Water) 7075 (RR) 7402 7072 (Rt. 3 Road) 7074	108(27-B4)/NA/401 / / R02/NA/3 / 126(27-C4)/NA/1	12/27/1950 12/8/1950 / / 11/30/1950 / 12/5/1950	693 693 / / 693 / 693	120 43 / / 35 / 44	1313 1253 / / 1267 / 1261
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 11	2015-06 Vol XIII App 15 Table 1	15-461 App 11	15-463 Table 1 App 10	Franklin	20	7076	State of NH Land (NHDOT)	345kV/115kV	3132-4 / 3132-5	F-139	F139-282/ F139-280	A-L	State Land	NA	V-182 V-182-210/ V- 182-208	Original Install of V182 in 1951 and F139 in 1966 predates State DOT Ownership between 7/3/1995	148	7076 7070 7072 (Road) 7074 7075 (RR) 7076 7077 (Water)	126(27-C4)/NA/401 108(27-B4)/NA/401- / 126(27-C4)/NA/1 / 126(27-C4)/NA/401	NYA 12/27/1950 12/08/1950 / 12/5/1950 / NYA /	NYA 693 693 / 693 / NYA /	NYA 120 43 / 44 / NYA	NYA 1313 1253 / 1261 / NYA /
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 12	2015-06 Vol XIII App 15 Table 1	15-461 App 12	15-463 Table 1 App 11	Canterbury	21	7616.1	State of NH Railroad (Concord Lincoln Line) (NHDOT)	345kV/115kV	3132-32 / 3132-33	F-139	F139-250 / F139-249	A-R	Railroad	NA	V-182 V-182-176/ V- 182-177	Original Install of V182 in 1951 and F139 in 1966 predates State Rail Corridor Ownership between 1975 & 1999	151, 152	7402 7616 7616.1 (RR) 7617 (I93 Road) 7618	R02/NA/3 236/NA/17 / / 237/NA/7	11/30/1950 12/1/1950 / / 12/1/1950	693 693 / / 693	35 49 / / 54	1267 1271 / / 1275
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 14	2015-06 Vol XIII App 14 Table 1	15-460 App 14	15-462 Table 1 App 11 / 12	Concord	22	8076	Turtle Pond	345kV/115kV/34.5kV	3132-112 - 3132-117 flood?	P-145, 318	318-52- 318-70 / P145-134 - P145-128	A-W	Public Water	N	C189 C189-81 - C189 79??(not included Do we need to show?)	C189 (formerly V182): DE 08-064 24,859 05/30/2008 (App. C) P145/318: DE 94-272 21,817 09/06/1995 (94-272-11, pg. 31)	159, 160	8048 8049 8048.01 (Oak Hill Rd) 8055 8062 8076 (Water) 8075 8074.01 8074 8073.01 8073 8072 8085 8077 8086 8080 (Appleton St.) 8084 8091	118F/1/1 118F/1/5  118F/2/11 118F/2/17  / 118F/2/17  / 118F/2/8 118F/2/8 118F/2/55 118F/2/31 118F/2/59 118F/2/50 118/2/5 118/2/5 118/2/5 118/2/5 118/2/1 118/1/4 118/1/44	9/1/1950  NYA  / NYA 10/5/1950  / NYA	688 NYA / / NYA 693 / NYA	248 NYA / / NYA 99 / NYA	1185 NYA / NYA 1307 / NYA
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 15	2015-06 Vol XIII App 14 Table 1	15-460 App 15	15-462 Table 1 App 13 / 14	Concord	23	8951	Soucook River	345kV/115kV/115kV	3132-159 / 3132-160	C-189, P-145	C189-32 / C189-31 P145-73 / P145-72	A-W	Public Water	Y	None	DE 08-064 24,859 05/30/2008 (App. C)	163, 164	8241 8242 8243 8951 (Water)	111G/1/63 110/1/6 111G/1/1 / 632/NA/18	NYA 9/6/1950 NYA / 12/2/1950	NYA 688 NYA / 693	NYA 258 NYA / 31	NYA 1149 NYA / 1279
2015-06 Vol XIII App 13 Attach B - Master Indx Sub App 13	2015-06 Vol XIII App 15 Table 1	15-461 App 13	15-463 Table 1 App 12 / 13	Pembroke	23	8954, 8957	State of NH Land (NHAG)	345kV/115kV/115kV	3132-159 / 3132-165	P-145, C-189	P145-73 - P145-66 C189-32 - C189-25(only being relocated 32-30)	A-L	State Land	NA	318 (34.5 kv) dead ends outside both north end and south end of parcel Liberty Utilities 200 psig NG pipeline	Original Install of V182	163, 164	8241 8242 8243 8951 (Water) 8954 8956 (Riverwood Dr.) 8957	111G/1/63 110/1/6 111G/1/1 / 632/NA/18 / 632/NA/18	NYA 9/6/1950 NYA / 12/2/1950 / 12/2/1950 12/2/1950 3/10/1951 8/26/1950	NYA 688 NYA / 693 / 693 693 693 688	NYA 258 NYA / 31 / 29 32 411 284	NYA 1149 NYA / 1279 / 1277 1263 1331 1147
2015-06 Vol XIII App 13 Attach B- Master Indx Sub App 14	NA NA	15-461 App 14	NA	Allenstown	24	9300	Bear Brook State Park (DRED) (1946 acquired)	345kV	3132-218 / 3132-228 Diff. boundary	NA	NA	A-L	State Land	NA	G-146 G146-109/ G146-119	Original Install of G- 146 in 1951 predates State DRED Ownership from private landowners. BP 916 was aquired by NH 10/31/1981, BP 975 was aquired by NH 10/31/1956, BP 973 was aquired by NH 7/05/1965	169, 170	8928 8928.01 (Old Buick St. Ext.) 8947 8950 (Water) 9300 9301	868/NA/15(4)  / 868/NA/12 / 408/NA/1  408/NA/3	NYA / 2/1/1954 / 1/29/1954 02/01/1954 2/25/1954 2/2/1954 3/4/1954	NYA / 745 / 745 745 745 745 745 745 745 745 745	NYA  /  187  /  179  209  379  177  375	NYA  /  973  /  975  916  998  979  914
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 16	NA	15-460 App 16	NA	Pembroke	24	8950	Suncook River	345kV	3132-218 / 3132-220 flood?	NA	NA NA	A-W	Public Water	Y	G-146 G146-119 / G146-118	Not Previously Licensed G-146 installed in 1951 Suncook River on PW 1947 list	169	8928 8928.01 (Road) 8947 8950 (Water) 9300	868/NA/15(4)  / 868/NA/12  / 408/NA/1	NYA / 2/1/1954 / 1/29/1954 02/01/1954	NYA / 745 / 745 745	NYA / 187 / 179 209	NYA / 973 / 975 916

		ATI	TACHMENT A	1-North	ern Pas	s Trans	mission Cro	ssings (Pub	lic Waters &	State Lands) N	laster Spreadsheet	SORTED	BY MAP	GEOG	RAPHI	CALLY FROM	1 NORT	H TO SOUTH			7111		
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT Sub App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map#	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Relocated Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot #	Deed Date	Book	Page #	Bates Page #
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 17	2015-06 Vol XIII App 14 Table 1	15-460 App 17	15-462 Table 1 App 15	Deerfield	NA	9702	Lamprey River	345kV/115kV	3132-295 / 3132-296	G-146	G146-27 / G146-26	A-W	Public Water	Y	D-118 D118-29 / D118-28	Not Necessary PW list includes Lamprey upto Nicholas Brook G-146 rebuilt in 2003 and D-118 rebuilt in 2014 is north of this point.	178	9698 9702 (Water) 9703 9702.01 (Mountain Rd) 9707 9708	210/NA/53 210/NA/53 210/NA/47 / 210/NA/39 210/NA/40	2/15/2013 / NYA / 12/7/1953 NYA	5412 / NYA / 1305 NYA	1616 / NYA / 499 NYA	32 / NYA / 1028 NYA
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3765.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			86	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3805.01	Ham Branch Crossing	DC/34.5kV	NONE	Uknown	Unknown	U-W	Public Water	N			87	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3841.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			89	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Woodstock	NA	4483.01	Gordon Pond Brook Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			101	Rt. 112					

			A	TTACHM	ENT A2	? - Northe	rn Pass Tra	nsmission C	rossings (Pub	lic Waters &	& State Lands) Master S	preadsl	neet so	RTED BY	Town ALI	PHABETICALLY					AIIA		
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT Sub App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#		EVSOURC PUC Docket # # EVSOURC Table # EVSOURC Appendix #	City/Town		NPT/ Eversource	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated	Eversource Pole ID	Type of Crossing	Crossing Type	IS on State		Previously Licensed?  Docket #, Order #, Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot	Deed Date	Book	Page #	Bates Page
	EVSOURC SEC Table#	игт арреники	EVSOURC Appelluix #	City/Town	roc wap #	Line List #	water / Land Name	voitage Lines	Northern Pass Pole ID	Eversource Circuit	Eversource Pole ID	Crossing	Crossing Type	waters	NOW	Docket #, Order #, Date	Iviap	8928	868/NA/15(4)	NYA NYA	NYA	NYA	NYA
																Original Install of G-146 in 1951 predates State		8928.01 (Old Buick St. 554 ) 8947	/ 868/NA/12	/ 2/1/1954	/ 745	187	973
2015-06 Vol XIII							Bear Brook State Park								G-146	DRED Ownership from private landowners.		8950 (Water)	/	/	/	/	/
App 13 Attach B- Master Indx	NA	15-461 App 14	NA	Allenstown	24	9300	(DRED) (1946 acquired)	345kV	3132-218 / 3132-228 Diff. boundary	NA	NA	A-L	State Land	NA	G146-109/ G146 -119	BP 916 was aquired by NH 10/31/1981, BP 975	169, 170	9300	408/NA/1	1/29/1954 02/01/1954	745 745	179 209	975 916
Sub App 14							(2010 004000)								32.0 220	was aquired by NH		9301	408/NA/3	2/25/1954 2/2/1954	745 745	379 177	998 979
																10/31/1956, BP 973 was aquired by NH 7/05/1965		9301	400/14//3	3/4/1954	745	375	914
																		9300.01 (Road)	/	/ 9/12/1952	/ 829	237	867
2015-06 Vol XIII															E-115	Not Previously Licensed		5538	3/3/2	9/24/1952 8/25/1928	829 608		874 878
App 12 Attach B- Master Indx	NA	15-460 App 8	NA	Ashland	14	5538, 5542	Squam River	DC	DC-1113 / DC-1114	NA	NA	A-W	Public Water	Υ	E115-211 / E115-212	E115 installed in 1953 Squam River	126			8/11/1928 3/6/1930	610 618	523 64	890 884
Sub App 8																not on PW 1947 list		5542	3/3/1	10/15/1952	341	482	876
																		3110 (Rt. 116)	/	9/18/1952	1524	815	786
																		310 (RE 110)	/	/	/	/	/
2015-06 Vol XIII		15-460													X-178, 348 X178-505 /	Not Previously Licensed	_	3108	406/36/NA	3/05/1953 10/2/1947	834 773	243 35	1617 1563
App 12 Attach B- Master Indx	NA	App 6	NA	Bethlehem	9	3114	Ammonoosuc River	DC	DC-662 / DC-663	NA	NA	A-W	Public Water	Y	X178-506 348(unkown)		73	3113	406/39/NA	3/05/1953 10/2/1947		243 35	1617 1563
Sub App 6															310(0111101111)			3114 (Water)	/	/ / / / / / / / / / / / / / / / / / / /	/	/	/
																		3115	406/37/NA	3/05/1953 10/2/1947	834 773	243 35	1617 1563
																		3110 (Rt. 116) 3109 (RR)	/	/	/	/	/
2015-06 Vol XIII															X-178, 348 X178-507 /	Not Necessary Original Install		3108	406/36/NA	3/05/1953 10/2/1947	834 773	243 35	1617 1563
App 13 Attach B- Master Indx	NA	15-461 App 6	NA	Bethlehem	9	3109	State of NH Railroad (NHDOT)	DC	DC-662 / DC-663	NA	NA	A-R	Railroad	NA	X178-506 348(unknown	X178 in 1953 & 348 in 1969 predates	73	3113	406/39/NA	3/05/1953 10/2/1947		243 35	1617 1563
Sub App 6															structure names)	State Rail ownership of 1999		3114 (Water)	/	/	/	/	/
																		3115	406/37/NA	10/2/1947	834 773	243 35	1617 1563
2015-06															E-115			5812	202/12/NA	NYA	NYA	NYA	NYA
Vol XIII App 12	NA	15-460 App 7	NA	Bridgewater	13	5813.01	Pemigewasset River	DC	DC-1099 / DC-1101 flood?	NA	NA	A-W	Public Water	Υ	E115-228 / E115-231	Not Previously Licensed E115 installed in 1953	124	5813.01 (Water)	/	/	/	/	/
Attach B- Master Indx Sub App 7		7,447													2113 251	Pemi on PW 1947 list		5530	4/1/1	12/2/1965	1029	174	824
																		6440	222/NA/38	8/21/1975	1254	410	833
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1													DE 75-173 12,022		6441 (Water)	/ /	8/21/19/5	/	/	/
App 12 Attach B- Master Indx	App 14 Table 1	App 10	App 6	Bristol	16	6441	Pemigewasset River	DC/115kV	DC-1174 / DC-1175	E-115	E115-123 / E115-122	A-W	Public Water	Y	None	08/04/1975	133			09/26/1952	342	261	25
Sub App 10	Table 1															(75-173-2, pg. 5)		6146	R15/19/NA	09/01/1928	188	245	124
2015-06	2015-06		15-463				Ctate of NIU Dailroad								V-182	Original Install of V182 in 1951 and F139 in 1966		7616	236/NA/17	12/1/1950	693	49	1271
Vol XIII App 13	Vol XIII App 15	15-461 App 12	Table 1 App 11	Canterbury	21	7616.1	State of NH Railroad (Concord Lincoln Line)	345kV/115kV	3132-32 / 3132-33	F-139	F139-250 / F139-249	A-R	Railroad	NA	V-182-176/ V-	predates State Rail Corridor Ownership between 1975 &	151, 152	7616.1 (RR) 7617 (I93 Road)	/	/	/	/	/
Attach B- Master Indx Sub App 12	Table 1						(NHDOT)								182-1//	1999		7618	237/NA/7	12/1/1950	693	54	1275
																		8048	118F/1/1	9/1/1950		248	1185 NVA
																		8049 8048.01 (Oak Hill Rd)	118F/1/5 /	NYA /	/	/	NYA /
																C189 (formerly V182): DE 08-064		8055 8062	118F/2/11 118F/2/17	NYA 10/5/1950		NYA 99	NYA 1307
																24,859 05/30/2008		8076 (Water) 8075	/ 118F/2/9	/ NYA	/ NYA	NYA	/ NYA
2015-06 Vol XIII	2015-06		15-462												C189 C189-81 - C189	(App. C)		8074.01 8074	118F/2/8 118F/2/55	NYA NYA	NYA NYA	NYA NYA	NYA NYA
App 12 Attach B- Master Indx	Vol XIII App 14	15-460 App 14	Table 1 App 11 / 12	Concord	22	8076	Turtle Pond	345kV/115kV/34.5kV	3132-112 - 3132-117 flood?	P-145, 318	318-52- 318-70 / P145-134 - P145-128	A-W	Public Water	N	79??(not included Do	P145/318:	159, 160	8073.01 8073	118F/2/31 118F/2/59	NYA NYA	NYA NYA	NYA	NYA NYA
Sub App 14	Table 1														we need to show?)	DE 94-272 21,817		8072	118F/2/26	NYA	NYA	NYA	NYA
																09/06/1995 (94-272-11, pg. 31)		8085 8077	118/2/5 118/2/3	NYA NYA	NYA	NYA	
																(5 . 2 . 2 . 2 , pg. 32)		8086 8080 (Appleton St.)	118/2/15 /	NYA /	/	NYA /	/
																		8088 8084	118/1/23 118/1/44	NYA NYA	NYA NYA	NYA NYA	NYA NYA
																C189 (formerly V182):		8091 8241	118/1/43 111G/1/63	NYA NYA		NYA NYA	NYA NYA
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1													DE 08-064 24,859		8242	110/1/6	9/6/1950	688	258	1149
App 12 Attach B- Master Indx	App 14 Table 1	App 15	App 13 / 14	Concord	23	8951	Soucook River	345kV/115kV/115kV	3132-159 / 3132-160	C-189, P-145	C189-32 / C189-31 P145-73 / P145-72	A-W	Public Water	Y	None	05/30/2008 (App. C)	163, 164	8243 8951 (Water)	111G/1/1 /	NYA /	NYA /	NYA /	NYA /
Sub App 15	Table 1															P145 NOT Licensed		8954	632/NA/18	12/2/1950	693		1279

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** ** ** ** ** ** ** ** ** ** ** ** **	NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach#	EVSOURC SEC Volume # EVSOURC SEC Appendix #		EVSOURC PUC Docket # # EVSOURC Table #			NPT/ Eversource		New or Relocated		Relocated		Type of		IS on State List of	Other Circuit# in	Previously Licensed?		Line List			Book	Page #	
** ** ** ** ** ** ** ** ** ** ** ** **																					4/9/1953		108	1547
*** *** *** *** *** *** *** *** *** **	2015-06																	,	2826 (Wetland)	413/NA/66	4/9/1953	397 359	108	1547
Marche   M	Vol XIII App 12	Vol XIII		Table 1	Dalton	8	2825, 2826	Johns River	DC/34.5kV		348X		A-W	Public Water	Υ	Q195-12 X178	& Q195 in 1958 Johns River not on 1947 PW		2831	413/NA/67	10/3/1947	397 359	329	1495
*** *** *** *** *** *** *** *** *** **		Table 1														5/6 / X1/8-5//	would need license by		2832	413/NA/68	10/3/1947	397 359	329	1495
*** *** *** *** *** *** *** *** *** **																			2833	413/NA/62	10/3/1947		329	1495
*** *** *** *** *** *** *** *** *** **	2015-06	2015.06		4F 462												V170 F70 /	· ·				3/19/1953	398	26	1535
Marchaster   Mar	App 13	Vol XIII App 15		Table 1	Dalton	8	2819		DC/34.5kV	DC-620 / DC-621	348X	348X-011 / 348X-012	A-R	Railroad	NA	X178-577 Q195-10/	X178 in 1953 & Q195 in 1958 predates	67		413/NA/75	9/17/1947	359 /	288	1491
*** *** *** *** *** *** *** *** *** **	Sub App 5															Q195-11			9698	210/NA/53	10/3/1947	359	329	1495
*** *** *** *** *** *** *** *** *** **	Vol XIII App 12	Vol XIII App 14		Table 1	Deerfield	25	9702	Lamprey River	345kV/115kV	3132-295 / 3132-296	G-146	G146-27 / G146-26	A-W	Public Water	Y	D118-29/	6,217	178	9703	210/NA/47 /	/	/	/	/
*** *** *** *** *** *** *** *** *** **	Sub App 17	Table 1														5110 10								
*** *** ******************************	App 12 Attach B- Master Indx	NA		NA	Franconia	10	3645.01	Gale River	DC	NONE	NA	NA	U-W	Public Water	Y	unknown	on PW1947 list Staff didnt request info	81	3645.01 (Water)	/	/	/	/	
*** *** *** *** *** *** *** *** *** **	Vol XIII		15-460		Face leller	20	7077	Managian al Diver	24512//44512/	2422.4 / 2422.5	5.430	F420 204 / F420 200		Dublic Meter	,			440	7074	126(27-C4)/NA/1	12/5/1950		44	1261
The column of	Attach B- Master Indx		App 13	App 10	Franklin	20	7077	Merrimack River	345KV/115KV	3132-4 / 3132-5	F-139	F139-281 / F139-28U	A-W	Public Water	Y			148	7077 (Water)	/	,	/ / NYA	/	/
*** Marke 1		2015-06		15-463															7318	76/NA/1	1/31/1976 /	1,268	283 /	2
*** *** *** *** *** *** *** *** *** *	App 13 Attach B- Master Indx	Vol XIII App 15		Table 1	Franklin	19	7317.01		DC/115kV/115kV	DC-1270/ DC-1271	M-127, F-139	M127-1A-1 / F139-343-342	A-R	Railroad	NA		1987 predates State Rail		7316	76/NA/5	6/2/1951	696	334	1341
*** Part of the control of the contr	Sub App 9																		7322	77/NA/402	NYA	NYA	NYA	NYA
*** *** *** *** *** *** *** *** *** **																			7031.02	77/NA/13	10/3/1949	670	458	1131
## 1		2015-06		15-462													18,782		7325	77/NA/406	10/17/1949	670	494	1135
*** *** *** *** *** *** *** *** *** **	App 12	Vol XIII App 14		Table 1	Franklin	19	7315	Chance Pond	DC/115kV/115kV	DC-1271/ DC-1272	M-127, F-139	M127-1 - 2 / F139-342-341	A-W	Public Water	N		superseeded by	143	7324 (Chance Pond Road)	/	/	/	/	/
Part	Sub App 12	Table 1															24,859				5/8/1964	942	223	1114
156-66   1																					9/14/1928	502	168	1358
Value   Valu																					12/27/1950	693	120	1313
Table 1	Vol XIII App 13	Vol XIII		Table 1	Franklin	20	7075		345kV/115kV	3132-4 / 3132-5	F-139	F139-282 / F139-281	A-R	Railroad	NA	V182-210/	1987 and F139 in 1966 predates State Rail Corridor		7075 (RR)	/	,	/	/	/
2015-06 VO NOIL 15-461 Table 1 Franklin Log 15-462 Alter the Master Index Sub-App 11 App 10 Profession of Master Index Sub-App 11 Profession of Master Index Sub-App 12 Profession of Master Index Sub-App 1			7,5510					(1111201)								V182-209	· ·	i	7072 (Rt. 3 Road) 7074	/ 126(27-C4)/NA/1	/ 12/5/1950	/ 693	/ 44	/ 1261
Vol. Vol. Vol. Vol. Vol. Vol. Vol. Vol.																					12/27/1950	693	120	1313
Sub App 11   Table 1	Vol XIII App 13	Vol XIII		Table 1	Franklin	20	7076		345kV/115kV	3132-4 / 3132-5	F-139	F139-282/ F139-280	A-L	State Land	NA	V-182-210/ V-	1951 and F139 in 1966 predates State DOT	148	7074		12/5/1950	693	44	1261
2015-06 Vol XIII App 8 NA 115-461 App 8 NA 14sh Paster Indx Sub App 12 Vol XIII App 12 Vol XIII App 13 App 12 Vol XIII App 13 App 12 App 14 App 2 App 2 App 12 App 14 App 3 App 15 App 16 App 16 App 16 App 16 App 17 App 16 App 17 App			7,00	7,66 10				(55.)								182-208			7076 7077 (Water)	126(27-C4)/NA/401 /	NYA /	NYA /	NYA /	NYA /
April 15-461 App 8 NA App 13 Artach B-Master Indx Sub App 12 App 12 App 12 App 14 App 14 App 14 App 15 App 12 App 14 App 15 App 14 App 15 App 16 App 16 App 16 App 16 App 16 App 17 App 16 App 17 App 16 App 17 App 18 A																					7/15/1952	715	470	326
Attach B- Master Indx Sub App 8	Vol XIII App 13	NA		NA	Hill	18	6703, 6704, 6705	State Forest	DC	DC-1208 /DC-1214	NA	NA NA	A-L	State Land	NA	A111-68 /	Install A-111 in 1953 predates	137			9/22/1928	502	37	435
Color   Colo			Αρμ ο					(DRED)													9/21/1928	502	82	340
Vol XIII	2015-06																				7/29/1947	359	299	524
Suh ang 3	Vol XIII App 12	Vol XIII App 14		Table 1	Lancaster	7	2233, 2234	Otter Brook	DC/115kV		D-142		A-W	Public Water	Υ	None	Not Previously Licensed	57		Des for the				
		Table 1																	2234	R11/NA/76	8/22/1947	359	278	532

				<b>ATTACHM</b>	ENT A2	? - Northe	rn Pass Tra	nsmission C	rossinas (Pub	lic Waters &	& State Lands) Master S <sub>i</sub>	preadsh	eet sor	RTED BY	Town ALF	PHABETICALLY						
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix #	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table #			NPT/ Eversource		New or Relocated	<b>3 1 1 1</b>	Relocated		Type of		IS on State List of	Other Circuit# in	Previously Licensed?	Forward NH	NPT/Eversource Line List	Tax Map/Block/Lot			Bates Page
NPT Sub App# 2015-06 Vol XIII	EVSOURC SEC Table#  2015-06  Vol XIII	NPT Appendix#	EVSOURC Appendix #  15-462	City/Town	PUC Map #	Line List #	Water / Land Name		Northern Pass Pole ID	Eversource Circuit	Eversource Pole ID  D142-375 / D142-376	Crossing	Crossing Type		ROW	Docket #, Order #, Date	Мар	Parcel #(s) 2235 (Water)	# /	Deed Date	Book Pag	
App 12 Attach B- Master Indx Sub App 4	App 14 Table 1	App 4	Table 1 App 3	Lancaster	7	2235	Israel River	DC/115kV	DC-538 / DC-539 flood overlap	D-142	(373-376 in docket)	A-W	Public Water	Y	None	Not Previously Licensed	58	2234	R11/NA/76	8/22/1947	359 27	78 532
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1													DE 76-22 12,219		6145.02	R16/NA/3	6/23/1932	204 21	.9 29
App 12 Attach B- Master Indx Sub App 9	App 14 Table 1	App 9	App 5	New Hampton	15	6145.03	Pemigewasset River	DC/115kV	DC-1144 / DC-1145	E-115	E115-168 / E115-167	A-W	Public Water	Y	None	4/21/1976 (76-22-3, pg. 12)	129	6145.03 (Water) 5813	/ 209/NA/11	9/4/1952	829 24	/ / 869
2015-06	2015-06		15-462													DE 76-22		6181 6182 (Water)	R01/NA/20		188 24	
Vol XIII App 12 Attach B- Master Indx Sub App 11	Vol XIII App 14 Table 1	15-460 App 11	Table 1 App 7	New Hampton	17	6182	Pemigewasset River	DC/115kV	DC-1205 / DC-1206	A-111	A111-80A / A111-80	A-W	Public Water	Υ	None	12,219 04/21/1976 (76-22-18, pg. 1)	137	6702	R1/NA/56	09/21/1928	502 8: 502 3:	2 340 1 409
2015-06 Vol XIII	2015-06		15-463													Not Prev Licensed Original Install E115 in 1953		6701 6143 6143.02 (I93 Road)	NA R16/2/A /		502 34 341 48	
App 13 Attach B- Master Indx Sub App 7	Vol XIII App 15 Table 1	15-461 App 7	Table 1 App 6	New Hampton	15	6145	State of NH Land (NHDOT)	DC/115kV	DC-1141/ DC 1143	E-115	E115-171/ E115-169	A-L	State Land	NA	None	doesn't predate State DOT ownership of 2/05/1952	129	6145 6145.01 (Rt. 132)	R16/1/NA /	NYA /	NYA NY	YA NYA
2015-06																		6145.02 2234	R16/NA/3 R11/NA/76		204 21 359 27	
Vol XIII App 13 Attach B- Master Indx	2015-06 Vol XIII App 15	15-461 App 4	15-463 Table 1 App 4	Lancaster	7	2236	State of NH Railroad (Groveton Branch) (NHDOT)	DC/115kV	DC-539 / DC-540	D-142	D142-376 / D142-377	A-R	Railroad	NA	None	Not Necessary Original Install D-142 predates	58	2236 (RR)	/	/	/ /	/
Sub App 4	Table 1															State Rail ownership		2237	R17/NA/29		359 27	
																		2026 2034	231/NA/1 247/NA/7	8/27/1947	359 31 359 32	480
2015-06 Vol XIII	2015-06		15-463				Cape Horn State Forest									Not Necessary Original		2030	234/NA/17		359 31 368 2	
App 13 Attach B- Master Indx Sub App 3	Vol XIII App 15 Table 1	15-461 App 3	Table 1 App 3	Northumberland	6	2030, 2034, 2037		DC/115kV	DC-485/ DC-507 Diff. Boundary	D-142	D142-321/ D142-344	A-L	State Land	NA	None	Install D-142 predates State Land ownership	51, 52, 53, 54	2035.01 (Page Hill Rd) 2037	/ 247/NA/1	/ NYA	/ / NYA NY	/ / /A NYA
																		2036.01 2036.02	247/NA/2(2) 247/NA/2(3)	8/12/1947 8/12/1947	368 1 368 1	476
																		2036.03 8928	247/NA/2(4) 868/NA/15(4)	8/12/1947 NYA	368 1 NYA NY	476
2015-06 Vol XIII App 12	NA	15-460 App 16	NA	Pembroke	24	8950	Suncook River	345kV	3132-218 / 3132-220 flood?	NA	NA	A-W	Public Water	Υ	G-146 G146-119 /	Not Previously Licensed G-146 installed in 1951 Suncook River on PW 1947	169	8928.01 (Road) 8947 8950 (Water)	/ 868/NA/12 /	/ 2/1/1954	/ / 745 18	/ / 87 973
Attach B- Master Indx Sub App 16		7,00													G146-118	list		9300	408/NA/1	1/29/1954 02/01/1954	745 17 745 20	79 975 19 916
2015-06															318 (34.5 kv) dead ends outside both	Original Install of V182 in		8241 8242 8243	111G/1/63 110/1/6 111G/1/1	9/6/1950	NYA NY 688 25 NYA NY	1149
Vol XIII App 13 Attach B - Master Indx	2015-06 Vol XIII App 15	15-461 App 13	15-463 Table 1 App 12 / 13	Pembroke	23	8954, 8957	State of NH Land (NHAG)	345kV/115kV/115kV	3132-159 / 3132-165	P-145, C-189	P145-73 - P145-66 C189-32 - C189-25(only being relocated 32-30)	A-L	State Land	NA	north end and south end of parcel	1951 and P145 in 1966 predates State AG Ownership from Riverwood	163, 164	8951 (Water) 8954 8956 (Riverwood Dr.)	632/NA/18 /	/ 12/2/1950 /	/ /	/
Sub App 13	Table 1														Liberty Utilities 200 psig NG	Properties on 10/01/2009		8957	632/NA/18		693 25 693 33 693 41	2 1263
2015-06 Vol XIII		15-460													pipeline			8961 167	632/NA/11 A-1/6W/5		688 28 1426 74	
App 12 Attach B- Master Indx Sub App 1	NA	App 1	NA	Pittsburg	1	TBD	Halls Stream	DC	DC-HQ-1 / DC-1	NONE	NONE	A-W	Public Water	Y	None	Not Necessary	1	168	A-1/6W/2			attach.
2015-06 Vol XIII App 12	NA	15-460 Part B	NA	Pittsburg	2	161	Connecticut River	DC	S1 LL 161	NONE	NONE	U-W	Public Water	Y	None	Not Necessary	2	201 161 (Water) 162 (Rt. 3)	A-1/29/2 /	/	1347 44 / / /	' / /
Attach B- Master Indx Part B 2015-06																		162.01 (Rt. 3) 400 5340.01 (Rt. 3)	/ R7/NA/1		/ / 1338 78 ? ?	31 attach.
Vol XIII App 12 Attach B- Master Indx	NA	15-460 Part B	NA	Plymouth	12	5342.01	Baker River	DC	NONE	NONE	NONE	U-W	Public Water	Υ	None	Not Necessary	119	5342.01 (Water)	/	/	/ /	. /
Part B 2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462				Hanor Ammerica											12554 12556 (Water)	410/NA/5 /	5/23/1946	346 36	
App 12 Attach B- Master Indx Sub App 2	App 14 Table 1	App 2	Table 1 App 1	Stark	5	12556	Upper Ammonoosuc River	DC/115kV	DC-434 / DC-435	O-154	O154-81 / O154-82	A-W	Public Water	Y	None	Not Previously Licensed	46	12557.01 (Lunn Rd) 12557	/ 410/NA/2		/ / 346 35 346 35	
2015-06 Vol XIII App 13	2015-06 Vol XIII	15-461	15-463 Table 1	Stark	3	12519	Nash Stream Forest (DRED)	DC/115kV	DC-403 / DC-394	0-154	O154-50 / O154-41	A-L	State Land	NA	None	Not Necessary	42, 43	12519 12516	406/NA/4 405/NA/4		359 13 346 34	1390
Attach B - Master Indx Sub App1	App 15 Table 1	App 1	App 1	SldIK	3	12319	(1988 Purchased)	DC/ 113KV	DC-403 / DC-394	0-134	0134-30 / U134-41	A-L	State Latiu	IVA	None	Not necessary	42, 43	12527	406/NA/3	6/7/1947	354 28	35 1382
2015-06 Vol XIII App 13	2015-06 Vol XIII	15-461	15-463 Table 1	Stark	4	12547	Percy State Forest (DRED)	DC/115kV	DC-420/ DC-415	O-154	O154-67/ O154-62	A-L	State Land	NA	None	Not Necessary	44	12541 12547	204/NA/2 204/NA/1	5/22/1946 5/20/1946 7/9/1946		11 1438 52 1434
Attach B - Master Indx Sub App2	App 15 Table 1	App 2	App 2				(1988 Purchased)									,		12548	411/NA/2	5/8/1946 5/12/1946 6/7/1947	346 35 346 35	1430 1426

			A	TTACHM	ENT A2	? - Northe	rn Pass Trai	nsmission C	rossings (Pub	lic Waters &	& State Lands) Master S	preadsh	neet soi	RTED BY	Town ALF	PHABETICALLY					ALLA		
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT SUB App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#		EVSOURC PUC Docket # # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map #	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Previously Licensed?  Docket #, Order #, Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot	Deed Date	Book		Bates Page
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Woodstock	11	4123.01	Moosilauke Brook Crossing	DC/34.5kV	NONE	NA	Unknown	U-W	Public Water	N	3126		101	Rt. 3					
2015-06 Vol XIII App 12 Attach B- Master Indx Sub App 17	2015-06 Vol XIII App 14 Table 1	15-460 App 17	15-462 Table 1 App 15	Deerfield	25	9702	Lamprey River	345kV/115kV	3132-295 / 3132-296	G-146	G146-27 / G146-26	A-W	Public Water	Y	D-118 D118-29 / D118-28	I-E8322 6,217 09/01/1953	178	9698 9702 (Water) 9703 9702.01 (Mountain Rd) 9707 9708	210/NA/53 210/NA/47	2/15/2013 / NYA / 12/7/1953 NYA	/ NYA / 1305	/ NYA / 499	/
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3765.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			86	Rt. 116	223,, 32				
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3805.01	Ham Branch Crossing	DC/34.5kV	NONE	Uknown	Unknown	U-W	Public Water	N			87	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3841.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			89	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Woodstock	NA	4483.01	Gordon Pond Brook Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			101	Rt. 112					

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			ATTACHM	ENT A3-	Northe	rn Pass	Transmissio	on Crossing	gs (Public Wo	aters & State Lo	ands) Master Spread	Isheet	SORTED BY	ZONE A	ND MAP	GEOGRAPHIC	CALLY FRO	M NORTH TO SOUT	ТН					
NPT SEC Docket # NPT SEC Volume # NPT SEC Appendix # NPT SEC Attach# NPT SUB App#	EVSOURC SEC Docket # EVSOURC SEC Volume # EVSOURC SEC Appendix # EVSOURC SEC Table#	NPT PUC Docket #	EVSOURC PUC Docket # EVSOURC Table # EVSOURC Appendix #	City/Town	PUC Map #	NPT/ Eversource Line List #	Water / Land Name	New or Relocated Voltage Lines	Northern Pass Pole ID	Relocated Eversource Circuit	Eversource Pole ID	Type of Crossing	Crossing Type	IS on State List of Waters	Other Circuit# in ROW	Previously Licensed?  Docket #, Order #, Date	Forward NH Map	NPT/Eversource Line List Parcel #(s)	Tax Map/Block/Lot #	Deed Date	Book	Page #	Bates Page #	
Staff Recommendation 2		ттррепака	2000 Me Appellaix II	City/ Town	· cemap :	2	trace, y zama mame	Tottage Lines	110111111111111111111111111111111111111	Eversource circuit	Eversource Fole ID	er ossining	crossing rype	To: Traceis		2410		1 0.00(5)	ap, 5.00.0, 200 ii	Deca Date	Book	rage #		
2015-06 Vol XIII App 12	NA	15-460 App 1	NA	Pittsburg	1	TBD	Halls Stream	DC	DC-HQ-1 / DC-1	NONE	NONE	A-W	Public Water	Y	None	Not Necessary	1	167	A-1/6W/5	8/25/2015	1426	741	attach.	
Attach B- Master Indx Sub App 1																		168 201	A-1/6W/2 A-1/29/2	8/25/2015 4/5/2012	1426	738	attach.	
2015-06 Vol XIII																		161 (Water)	/	/	/	/	/	
App 12	NA	15-460 Part B	NA	Pittsburg	2	161	Connecticut River	DC	S1 LL 161	NONE	NONE	U-W	Public Water	Υ	None	Not Necessary	2	162 (Rt. 3) 162.01 (Rt. 3)	/	/	/	/	/	
Attach B- Master Indx Part B																		400	R7/NA/1	9/8/2011	1338	781	attach.	
2015-06	2015-06		15-463															12519	406/NA/4	8/27/1946	359	134	1390	
Vol XIII App 13	Vol XIII App 15	15-461 App 1	Table 1 App 1	Stark	3	12519	Nash Stream Forest (DRED)	DC/115kV	DC-403 / DC-394	0-154	O154-50 / O154-41	A-L	State Land	NA	None	Not Necessary	42, 43	12516	405/NA/4	5/20/1946	346	341	1438	
Attach B - Master Indx Sub App1	Table 1	Appi	Whh I				(1988 Purchased)											12527	406/NA/3	6/7/1947	354	285	1382	
2015-06																		12541	204/NA/2	5/22/1946	346	343	1442	
Vol XIII App 13	2015-06 Vol XIII	15-461	15-463	6. 1		40547	Percy State Forest	20/445114	20 120/20 115	0.454	0454 57/0454 50							12547	204/NA/1	5/20/1946 7/9/1946	346 346	341 362	1438 1434	
Attach B - Master Indx Sub App2	App 15 Table 1	App 2	Table 1 App 2	Stark	4	12547	(DRED) (1988 Purchased)	DC/115kV	DC-420/ DC-415	0-154	O154-67/ O154-62	A-L	State Land	NA	None	Not Necessary	44	12548	411/NA/2	5/8/1946	346	354	1430	
зив Аррг	Table 1																	12510	122/10/2	5/12/1946 6/7/1947	346 354	357 285	1426 1382	
2015-06																		12554	410/NA/5	5/23/1946	346	360	1422	
Vol XIII App 12	2015-06 Vol XIII	15-460	15-462 Table 1	Stark	<u> </u>	12556	Upper Ammonoosuc	DC/115kV	DC-434 / DC-435	0-154	0154-81 / 0154-82	A-W	Public Water	v	None	Not Previously	46	12556 (Water) 12557.01 (Lunn Rd)	/	/	/	/	/	
Attach B- Master Indx	App 14 Table 1	App 2	App 1	Stark	,	12330	River	DC/113KV	DC-434 / DC-433	0-134	0134-81 / 0134-82	A-vv	rubiic watei	'	None	Licensed	40	12557	410/NA/2	7/9/1946	346	355	1418	
Sub App 2																		2026	231/NA/1	05/07/1946 7/22/1947	346 359	352 317	1414 460	
																		2034	247/NA/7	8/27/1947	359	317	480	
2015-06 Vol XIII	2015-06		15-463				Cape Horn State Forest									Not Necessary		2030	234/NA/17	8/21/1947 8/12/1947	359 368	311 2	472 484	
App 13	Vol XIII App 15	15-461 App 3	Table 1 App 3	Northumberland	6	2030, 2034, 2037	(DRED) (1988 Purchased)	DC/115kV	DC-485/ DC-507 Diff. Boundary	D-142	D142-321/ D142-344	A-L	State Land	NA	None	Original Install D-142 predates	51, 52, 53, 54		1	/	/	/	/	
Attach B- Master Indx Sub App 3	Table 1	. 447.5					(1988 Purchased)								D-142 predate	State Land ownership		2037 2036.01	247/NA/1 247/NA/2(2)	NYA 8/12/1947	NYA 368	NYA 1	NYA 476	
																		2036.02 2036.03	247/NA/2(3)	8/12/1947	368	1	476 476	
2045.05																		2036.03	247/NA/2(4)	8/12/1947 7/29/1947	368 359	299	524	
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1	Lancaster	7	2222 2224	Otter Brook	DC/11EW/	DC-536 / DC -537	D-142	D142-373 / D142-374	A-W	Public Water	v	None	Not Previously	57	2233	R11/NA/77	8/27/1947	359	338	616	
App 12 Attach B- Master Indx	App 14 Table 1	App 3	App 2	Lancaster	,	2233, 2234	Otter Brook	DC/115kV	flood overlap	D-14Z	(373-376 in docket)	A-VV	Public Water	'	None	Licensed	57	2234	R11/NA/76	7/29/1947	359	299	524	
Sub App 3																				8/22/1947	359	278	532	
2015-06 Vol XIII App 12	2015-06 Vol XIII	15-460	15-462 Table 1	Lancaster	7	2235	Israel River	DC/115kV	DC-538 / DC-539	D-142	D142-375 / D142-376	A-W	Public Water	Y	None	Not Previously	58	2235 (Water)	/	/	/	/	/	
Attach B- Master Indx Sub App 4	App 14 Table 1	App 4	App 3						flood overlap		(373-376 in docket)					Licensed		2234	R11/NA/76	8/22/1947	359	278	532	
2015-06	2015-06		15-463													Not Necessary		2234	R11/NA/76	8/22/1947	359	278	532	
Vol XIII App 13	Vol XIII	15-461	Table 1	Lancaster	7	2236	State of NH Railroad (Groveton Branch)	DC/115kV	DC-539 / DC-540	D-142	D142-376 / D142-377	A-R	Railroad	NA	None	Original Install	58	2236 (RR)	/	/	/	/	/	
Attach B- Master Indx Sub App 4	App 15 Table 1	App 4	App 4				(NHDOT)									D-142 predates State Rail ownership		2237	R17/NA/29	8/22/1947	359	278	532	
																		2819 (RR)	/	/	/	/	/	
																		2825 (Wetland)	413/NA/71	4/9/1953	397	108	1547	
																Not Previously Licensed		2826 (Wetland)	413/NA/66	10/3/1947 4/9/1953	359 397	329 108	1495 1547	
2015-06 Vol XIII	2015-06		15-462												Q195-11 /	Original install X178 in 1953				10/3/1947 4/9/1953	359 397	329 108	1495 1547	
App 12	Vol XIII App 14	15-460 App 5	Table 1 App 4	Dalton	8	2825, 2826	Johns River	DC/34.5kV	DC-622A/DC-621 flood?	348X	348X-013 / 348X-017 flood zone	A-W	Public Water	Υ	Q195-12 X178-576 /	& Q195 in 1958	68	2831	413/NA/67	10/3/1947	359	329	1495	
Attach B- Master Indx Sub App 5	Table 1	,,,,													X178-577	Johns River not on 1947 PW list		2832	413/NA/68	4/9/1953 10/3/1947	397 359	108 329	1547 1495	
	oup who o															would need license by today standards		2833	413/NA/62	4/9/1953 10/3/1947	397 359	108 329	1547 1495	
																		2833.03 (for ref.)	413/NA/5	9/23/2015 9/26/1947	1428 359	393 331	1460 1499	
																Not Marra				3/19/1953	398	26	1535	
2015-06 Vol XIII	2015-06		15-463												X178-578 /		Not Necessary 78-578 / Original Install		2818	413/NA/75	5/22/1953 9/17/1947	397 359	204 288	1549 1491
App 13	Vol XIII App 15	15-461 App 5	Table 1 App 5	Dalton	8	2819	State of NH Railroad (NHDOT)	DC/34.5kV	DC-620 / DC-621	348X	348X-011 / 348X-012	A-R	Railroad	NA	X178-577 Q195-10 /	X178 in 1953 & Q195 in 1958 predates	67	2819 (RR)	/	1	/	/	/	
Attach B- Master Indx Sub App 5	Table 1	1,7				2819	(NHDOT)	DC/34.5kV	DC-620 / DC-621	. 348X	348X-011 / 348X-012			NA Q1	Q195-11	State Rail ownership of 1999		2825	413/NA/71	4/9/1953	397	108	1547	
	Sub App 5															31 1333				10/3/1947	359	329	1495	

#### ATT A-3

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Staff Recommendation 2	Zone 2																							
																		3110 (Rt. 116)	/	/	/	/	/	
																		3109 (RR)	/	/	/	/	/	
2015-06															X-178, 348			3108	406/36/NA	3/05/1953	834	243	1617	
Vol XIII		15-460													X178-505/	Not Previously		3100	400/30/147	10/2/1947	773	35	1563	
App 12	NA	App 6	NA	Bethlehem	9	3114	Ammonoosuc River	DC	DC-662 / DC-663	NA	NA	A-W	Public Water	Υ	X178-506	Licensed	73	3113	406/39/NA	3/05/1953	834	243	1617	
Attach B- Master Indx															348(unkown					10/2/1947	773	35	1563	
Sub App 6															,			3114 (Water)	/	/	/	/	/	
																		3115	406/37/NA	3/05/1953	834	243	1617	
																				10/2/1947	773	35	1563	
																		3110 (Rt. 116)	/	/	/	/	/	
															X-178, 348	Not Necessary		3109 (RR)	/	3/05/1953	834	243	1617	
2015-06															X178-507 /	Original Install X178 in 1953		3108	406/36/NA	10/2/1947	773	35	1563	
Vol XIII App 13	NA	15-461	NA	Bethlehem	9	3109	State of NH Railroad	DC	DC-662 / DC-663	NA	NA	A-R	Railroad	NA	X178-506	& 348 in 1969	73			3/05/1953	834	243	1617	
Attach B- Master Indx	IVA	App 6	INA	betmenem		3109	(NHDOT)	DC DC	DC-662 / DC-663	NA.	NA NA	A-N	Kaliloau	INA	348(unknow	predates	/3	3113	406/39/NA	10/2/1947	773	35	1563	
Sub App 6															n structure	State Rail ownership		3114 (Water)	,	10/2/194/	//3	33 /	1505	
															names)	of 1999		ì	/	3/05/1953	834	243	1617	
																		3115	406/37/NA	10/2/1947	773	35	1563	
																Not Previously				10/2/1947	773	55	1303	
2015-06 Vol XIII												NA U-W Public Water Y unknown (undergroun d) info												
App 12	NA	15-460 Part B	NA	Franconia	10	3645.01	Gale River	DC	NONE	NA	NA		Public Water	Υ	unknown		81	3645.01 (Water)	/	/	/	/	/	
Attach B- Master Indx		Falt													(undergroun Staff didnt d) info								1	
Part B															۵,	of license for 348X1							1	
2015-06																								
Vol XIII																								
App 12	NA	15-460	NA	Woodstock	11	4123.01	Moosilauke Brook	DC/34.5kV	NONE	NA	Unknown	U-W	Public Water	N	3126		101	Rt. 3					1	
Attach B- Master Indx		Part B					Crossing	,			•												1	
Part B																								
2015-06																		5340.01 (Rt. 3)	?	?	?	?	?	
Vol XIII		15-460			40	5242.04	2.1.2:		None	NONE			5 11: 11.	,,	Y None			440						
App 12 Attach B- Master Indx	NA	Part B	NA	Plymouth	12	5342.01	Baker River	DC	NONE	NONE	NONE	U-W	Public Water	≥r Y		one Not Necessary	119		,	,	,	,		
																		5342.01 (Water)	/	/	/	/	/	
. 410 0	Part B																						1	

Staff Recommendation Zo	one 3																						
2015-06																	5812	202/12/NA	NYA	NYA	NYA	NYA	
Vol XIII		15-460							DC-1099 / DC-1101						E-115 E115-228/	Not Previously Licensed		5813.01 (Water)	/	/	/	/	/
App 12 Attach B- Master Indx Sub App 7	NA	App 7	NA	Bridgewater	13	5813.01	Pemigewasset River	DC	flood?	NA	NA	A-W	Public Water	Y	E115-231	E115 installed in 1953 Pemi on PW 1947 list	124	5530	4/1/1	12/2/1965	1029	174	824
																				9/12/1952	829	237	867
2015-06															E-115	Not Previously		5538	3/3/2	9/24/1952	829	363	874
Vol XIII App 12	NA	15-460	NA	Ashland	14	5538, 5542	Squam River	DC	DC-1113 / DC-1114	NA	NA	A-W	Public Water	Υ	E115-211/	Licensed E115 installed in 1953	126			8/25/1928 8/11/1928	608 610	459 523	878 890
Attach B- Master Indx		App 8				,	.,								E115-212	Squam River				3/6/1930	618	64	884
Sub App 8																not on PW 1947 list		5542	3/3/1	10/15/1952 9/18/1952	341 1524	482 815	876 786
	115.06																6145.02	R16/NA/3	6/23/1932	204	219	29	
2015-06 Vol XIII	2015-06 Vol XIII	15-460	15-462													DE 76-22				/			/
App 12 Attach B- Master Indx Sub App 9	12 App 14 App 9 App 5  Table 1	Table 1 App 5	New Hampton	15	6145.03	Pemigewasset River	DC/115kV	DC-1144 / DC-1145	E-115	E115-168 / E115-167	A-W	Public Water	Y	None	12,219 4/21/1976 (76-22-3, pg. 12)	129	6145.03 (Water) 5813	/ 209/NA/11	9/4/1952	829	241	869	
																	6143	R16/2/A	10/15/1952	341	481	789	
2015.05																Not Drov Hissand		6143.02 (I93 Road)	/	/	/	/	/
2015-06 Vol XIII	2015-06 Vol XIII	15-461	15-463				State of NH Land	DC/115kV								Not Prev Licensed Original Install E115 in		6145 6145.01 (Rt. 132)	R16/1/NA /	NYA /	NYA /	NYA /	NYA /
App 13	App 15	15-461 App 7	Table 1 App 6	New Hampton	15	6145	State of NH Land (NHDOT)		DC-1141/ DC 1143	E-115	E115-171/ E115-169	A-L	State Land	NA	None	1953 doesn't predate	129	0143.01 (Rt. 132)	/	/	/	/	
Attach B- Master Indx Sub App 7	Table 1															State DOT ownership of 2/05/1952		6145.02	R16/NA/3	6/23/1932	204	219	29
2015-06	2015-06		15-462													DE 75-173		6440	222/NA/38	8/21/1975	1254	410	833
Vol XIII App 12	Vol XIII	15-460	Table 1	Bristol	16	6441	Pemigewasset River	DC/115kV	DC-1174 / DC-1175	E-115	E115-123 / E115-122	A-W	Public Water	Y	None	12,022	133	6441 (Water)	/	/	/	/	/
Attach B- Master Indx	App 14 Table 1	App 10	App 6				, , , , , , , , , , , , , , , , , , ,				,					08/04/1975 (75-173-2, pg. 5)		6146	R15/19/NA	09/26/1952	342	261	25
Sub App 10																				09/01/1928	188	245	124
2015-06	2015-06		15-462													DE 76-22		6181 6182 (Water)	R01/NA/20	7/28/1928	188	242	121
Vol XIII App 12	Vol XIII	15-460	Table 1	New Hampton	17	6182	Pemigewasset River	DC/115kV	DC-1205 / DC-1206	A-111	A111-80A / A111-80	A-W	Public Water	v	None	12,219	137	6702	R1/NA/56	9/21/1928	502	82	340
Attach B- Master Indx	App 14 Table 1	App 11	App 7	New Hampton	17	0102	i cilligewasset tilver	DC/115kV	DC 1205 / DC 1200	W-111	AIII OOA / AIII OO	^ **	Tablic Water	Y	None	04/21/1976 (76-22-18, pg. 1)	137	0702	NI/NA/30	09/21/1928	502	31	409
Sub App 11	Tuble 1															(70 22 10, pg. 1)		6701	NA	9/27/1928	502	34	367
			NA													Not Necessary		6703	R9/NA/13	7/15/1952	715	470	326
2015-06 Vol XIII				Hill			William H Thomas State								A-111	Original Install		6704	R9/NA/18	8/5/1952 9/22/1928	715 502	468 37	312 435
App 13	NA	15-461 App 8			18	703, 6704, 670	Forest	DC	DC-1208 /DC-1214	NA	NA	A-L	State Land	NA	A111-68 / A111-78	A-111 in 1953 predates	137	6705	R9/NA/25	11/28/1952	725	292	338
Attach B- Master Indx Sub App 8		Appo					(DRED)								not on map	State Land ownership			N9/NA/23	9/27/1928 9/21/1928	502 502	206 82	373 340
3457 AP 5																of 4/21/2003		6702	R1/NA/56	9/21/1928	502	31	409
																		7318	76/NA/1	1/31/1976	1,268	283	2
2015-06 Vol XIII	2015-06		15-463												V182	Original Install of V182 in 1987		7317.01 (RR)	/	5/8/1964	942	223	1114
App 13	Vol XIII App 15	15-461 App 9	Table 1 App 7 / 8	Franklin	19	7317.01	Northern Rail Trail (NHDOT)	DC/115kV/115kV	DC-1270/ DC-1271	M-127, F-139	M127-1A-1 / F139-343-342	A-R	Railroad	NA	V182-269-	predates State Rail	143	7316	76/NA/5	6/2/1951	696	334	1341
Attach B- Master Indx Sub App 9	Table 1	. 442					(								268	Corridor Ownership in 1995		,510	, 0, 10, 5	12/10/1949 9/14/1928	696	97 168	1124 1358
																		7322	77/NA/402	9/14/1928 NYA	502 NYA	NYA	NYA
																				10/3/1949	670	457	1128
																M127/F139:		7031.02	77/NA/13	10/3/1949 8/14/1962	670 907	458 106	1131 1106
																DE 87-131 18,782		7031.01	77/NA/12	NYA	NYA	NYA	NYA
2015-06 Vol XIII App 12 Attach B- Master Indx	2015-06		15-462												1/400	08/04/1987		7325 7326	77/NA/406	10/17/1949	670 NVA	494 NVA	1135
	Vol XIII	15-460	Table 1	Franklin	19	7315	Chance Pond	DC/115kV/115kV	DC-1271/ DC-1272	M-127, F-139	M127-1 - 2 / F139-342-341	A-W	Public Water	N	V182 V182-268-	(87-131-1, pg. 20) superseeded by	143	7326 7324 (Chance Pond Road)	M6/77/15 /	NYA /	NYA /	NYA /	NYA /
	App 14 Table 1	App 12	App 8 / 9												V182-268- superseeded 267 V182	V182		7315 (Water)	1	/	/	/	/
Sub App 12																DE 08-064				5/8/1964 6/2/1951	942 696	223 334	1114 1341
																5/30/2008		7316	76/NA/5	12/10/1949	696	97	1124
																				9/14/1928	502	168	1358
																		7322	77/NA/402	NYA	NYA	NYA	NYA

*** *** ******************************	Staff Recommendation Z	one 4																					ATT A-3	
*** *** *** *** *** *** *** *** *** **	2015-06																							
**************************************			15-460																	126(27-C4)/NA/1	12/5/1950	693	44	
*** *** *** *** *** *** *** *** *** **					Franklin	20	7077	Merrimack River	345kV/115kV	3132-4 / 3132-5	F-139	F139-281 / F139-280	A-W	Public Water	Υ			148		/	/	/	/	
**************************************																V182-208	(76-22-10, pg. 10)					<del>  '  </del>		
*** *** *** *** *** *** *** *** *** **																			7402	82-NO/NA/402				
*** *** ******************************																	Original Install of		7070	108(27-B4)/NA/401				
**************************************		2015-06		15-463												1400			7077 (Water)	/				
THE STATE WAS ASSESSED BY ASSE		Vol XIII		Table 1	Franklin	20	7075		345kV/115kV	3132-4 / 3132-5	F-139	F139-282 / F139-281	A-R	Railroad	NA		F139 in 1966 predates	148	` '		,	/	- /	
*** Property of the column of	Attach B- Master Indx		App 10	App 9	T TOTAL	20	7075	(NHDOT)	313.07,213.0	3132 17 3132 3	1 155	1155 2027 1155 201	,,,,	Namoud				1.0		R02/NA/3	11/30/1950	693	35	
*** *** *** *** *** *** *** *** *** **	Sub App 10	Table 1																		126/27 C4\/NA /1	13/5/1050	(02	/	
*** *** *** *** *** *** *** *** *** **																				. , , , ,				
*** *** *** *** *** *** *** *** *** **																				` "				
1	2015.06																Original Install of			108(27-B4)/NA/401	12/08/1950	693	43	
*** *** *** *** *** *** *** *** *** **			15 454					Canal of NULL and								V-182			1 /	/	,	/	- /	
*** Part					Franklin	20	7076		345kV/115kV	3132-4 / 3132-5	F-139	F139-282/ F139-280	A-L	State Land	NA			148						
Part								, ,								V-182-208			` '	, 126(27-C4)/NA/401	NYA	NYA	NYA	NYA
**************************************	300 App 11																between 7/3/1993			/	,	/	/	
*** Property of the control of the c																								
*** *** ******************************																	Original Install of		7616	236/NA/17	12/1/1950	693	49	1271
*** *** *** *** *** *** *** *** *** **		2015-06		15-463				State of NH Dailroad								V 102			7616.1 (RR)	/	/	/	/	1
*** *** *** *** *** *** *** *** *** **					Canterbury	21	7616.1		345kV/115kV	3132-32 / 3132-33	F-139	F139-250 / F139-249	A-R	Railroad	NA			151, 152	7617 (I93 Road)	/	/	/	/	/
The column	Attach B- Master Indx		App 12	App 11	,				, ,									.,.						
*** Part	Sub App 12	Table 1																	7618	237/NA/7	12/1/1950	693	54	1275
*** Part																								
Part																								
*** Proof of the control of the cont																								
*** Proof of the control of the cont																	C100 /f-					,	-	
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*** *** *** *** *** *** *** *** *** **																			· /	/	/	/	/	
*** *** *** *** *** *** *** *** *** **																								
**************************************		2015-06		15-462													(App. C)			- , , -				
**************************************				Concord	22	8076	Turtle Pond	345kV/115kV/34.5kV		P-145, 318	318-52- 318-70 / P145-134 - P145-128	A-W	Public Water	N			159, 160							
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Attach B- Master Indx		App 14	App 11 / 12						11000?								,	8073		NYA	NYA	NYA	NYA
Part	Sub App 14	rubic 1																						
Part																to snow?)								
## PRINT PRI																								
March   Marc																				/	/	/	/	
Part																				118/1/23	NYA	NYA	NYA	NYA
1700-00 (100-0																								
10.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0																								
201-00 1-00 1-00 1-00 1-00 1-00 1-00 1-0																	C180 (formark) \((183\)							
Value   Valu	2015-06																							
April   Apri			15-460																8951 (Water)	1	1	/	/	/
Table 1					Concord	23	8951	Soucook River	345kV/115kV/115kV	3132-159 / 3132-160	C-189, P-145	C189-32 / C189-31 P145-73 / P145-72	A-W	Public Water	Υ	None		163, 164						
PASE POT LOCKED  1. 1. 461																	(App. C)		9054	C22/NA/10	12/2/1050	C02	24	1270
15-46   15-46	5457.pp 15																P145 NOT Licensed		8954	032/NA/18	12/2/1950	093	31	12/9
15-46   15-46																								
2015-06 vot 2010 15-461 7aller 1 15-462 7aller																								
2015-06 vol. 2015-																	Original Install of							
Vo. 301	2015-06	201F 06		15.463																				
App 13 App 12 / 13 App 14 App 15 App 16 App			15-461				0054	State of NH Land	045111/445111/	2422 450 /	0.445	P145-73 - P145-66 C189-32 - C189-25(only						460	. ,	/	,	,	-	
Sub-App 13   1886     Sub-Principle   Sub-Pr	App 13 Attach B - Master Indx	App 15			Pembroke	23	8954, 8957		345KV/115KV/115KV	3132-159 / 3132-165	P-145, C-189		A-L	State Land	NA			163, 164						
Dilline 3/Dilline 3/Dillin		Table 1														p2.001	Riverwood Properties		0057	620/04/				
## Public Water lodge    Part   Public Water lodge   Public Water lodge																	on 10/01/2009		8957	632/NA/18				
828 88/NA/15(4) NYA																			8961	632/NA/11				
2015-06 Vol.NII App 13 NA App 14 App 14 App 14 App 14 App 14 App 15 App 15 App 15 App 16 App 16 App 17 App 18 App																,								
2015-06 Vol./III NA 15-461 App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) 15-461 (1946 acquired) 15-461 NA 15-460 App 14 NA 15-460 App 14 NA 15-460 App 15 NA 15-460 App 16 NA 15-460 A																			8928.01 (Old Buick St. Ext.)	/	/	/	/	/
2015-06 Vol XIII App 13 App 13 NA 15-461 App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) App 13 App 13 App 13 App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) App 14 NA Allenstown 24 9300 Bear Brook State Park (DRED) (1946 acquired) App 15 was aquired by NH 7/05/1956 BP 975 was aquired by NH 7/05/1956 BP 9																				060/NA/43	2/1/1054	745	107	•
2015-06 Vol XIII App 13																				000/NA/12				
App 13								Dana Barada St. 1. D. 1								6.116				408/NA/4				
tach B- Master Indx Sub App 14  Sub App 14  Lach B- Master Indx Sub App 16  Lach B- Master Ind		NA		NA	Allenstown	24	9300		345kV		NA	NA	A-L	State Land	NA			169, 170	5300	400/ NA/ 1				
2015-06 Vol XIII App 12 MA Pembroke 24 8950 Suncook River 345kV 3132-220 flood? NA NA NA A-W Public Water Pub	Attach B- Master Indx	Master Indx NA App 14 NA NA	.,,			- 300	* *	2.3%	Diff. boundary		.".		21110 20110				103, 170	0201	400/NA/2					
2015-06 Vol XIII App 12 App 16 NA Pembroke  24 8950 Suncook River  345kV  3132-218 / 3132-220 Flood? NA	Sub App 14																	9301	408/NA/3					
2015-06 Vol XIII App 12 Handler Index Page 18 MA Pembroke 24 8950 Suncook River 345kV Sub App 16 Su																				3/4/1334	743	3/3	514	
2015-06 Vol XIII App 12 NA PP 16 NA PP																			0200 01 (Dead)	,	,	,	,	,
2015-06 Vol XIII App 12 App 16 NA Pembroke 24 8950 Suncook River 345kV 3132-218 / 3132-220 App 16 NA Pembroke 24 8950 Suncook River 345kV 3132-220 Flood? NA		Vol XIII         15-460           App 12         NA         15-460         NA           h B- Master Indx         App 16         NA														by NH 7/05/1965		A200'01 (K09Q)	/	/	/	/	7	
2015-06 Vol XIII App 12 App 16 NA Pembroke 24 8950 Suncook River 345kV 3132-218 / 3132-220 App 16 NA Pembroke 24 8950 Suncook River 345kV 3132-220 Flood? NA																			2020	000/214/4-11		,,,,	An.,	
Vol XIII App 12 App 16 NA Pembroke  Vol XIII App 12 NA Pembroke  24 8950 Suncook River  NA	2015-06																			868/NA/15(4)		NYA /		
App 12 NA App 16 NA Pembroke 24 8950 Suncook River 345kV flood? NA	Vol XIII		15-460					_		3132-218 / 3132-220									, ,	868/NA/12	,	745	,	
Sub App 16 Suncook River on PW 9300 408/NA/1 1/29/1954 745 179 975					Pembroke	24	8950	Suncook River	345kV		NA	NA	A-W	Public Water	Y	G146-119 / G-146 insta	1951	169		/	/	/	/	
194/ IIST 02/01/1954 745 209 916			JU 10			0.330			flood?						22.0 110			9300	408/NA/1					
																1947 IIST				02/01/1954	745	209	916	

#### ATT A-3

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Non-Crossings																							
																		9698	210/NA/53	2/15/2013	5412	1616	32
2015-06	2015 00		45.462															9702 (Water)	210/NA/53	/	/	/	/
Vol XIII	2015-06 Vol XIII	15-460	15-462 Table 1												D-118	I-E8322		9703	210/NA/47	NYA	NYA	NYA	NYA
App 12	App 14	App 17	App 15	Deerfield	25	9702	Lamprey River	345kV/115kV	3132-295 / 3132-296	G-146	G146-27 / G146-26	A-W	Public Water	Υ	D118-29/	6,217	178	9702.01 (Mountain Rd)	/	/	/	/	/
Attach B- Master Indx	Table 1		,,,												D118-28	09/01/1953		9707	210/NA/39	12/7/1953	1305	499	1028
Sub App 17																		9708	210/NA/40	NYA	NYA	NYA	NYA
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3765.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			86	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3805.01	Ham Branch Crossing	DC/34.5kV	NONE	Uknown	Unknown	U-W	Public Water	N			87	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Easton	NA	3841.01	Ham Branch Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			89	Rt. 116					
2015-06 Vol XIII App 12 Attach B- Master Indx Part B	NA	15-460 Part B	NA	Woodstock	NA	4483.01	Gordon Pond Brook Crossing	DC/34.5kV	NONE	Unknown	Unknown	U-W	Public Water	N			101	Rt. 112					

From: Spoerl, Robert
To: Gilpatric, Kerri-Lyn
Cc: Carson, Trisha

Subject: RE: response to Knepper letter of Oct 21

Date: Monday, February 27, 2017 10:53:52 AM

Attachments: <u>SEC request.docx</u>

Here is what I found in the file. It is a compilation of responses to the Director Knepper letter of Oct 21, 2016 from the involved foresters.

#### Bob

From: Gilpatric, Kerri-Lyn

Sent: Monday, February 27, 2017 9:45 AM

**To:** Spoerl, Robert **Cc:** Knepper, Randy

Subject: FW: response to Knepper letter of Oct 21

Good morning Bob-

I am just checking in to see if you were able to find out anything else regarding this matter?

Once again, I appreciate your help with this!

Thank you,

Kerri-Lyn Gilpatric
Program Assistant II
New Hampshire Public Utilities Commission
Safety Division
21 S. Fruit Street, Suite 10
Concord, NH 03301-2429
603-271-6027

From: Gilpatric, Kerri-Lyn

Sent: Friday, February 24, 2017 3:29 PM

**To:** Spoerl, Robert **Cc:** Knepper, Randy

Subject: RE: response to Knepper letter of Oct 21

Bob-

Thank you very much for your assistance with this. Enjoy your weekend!

Thank you,

Kerri-Lyn Gilpatric
Program Assistant II
New Hampshire Public Utilities Commission

Safety Division 21 S. Fruit Street, Suite 10 Concord, NH 03301-2429 603-271-6027

From: Spoerl, Robert

**Sent:** Friday, February 24, 2017 3:27 PM

To: Gilpatric, Kerri-Lyn

Subject: response to Knepper letter of Oct 21

#### Kerri

I found a draft copy of responses to Randy's letter however I cannot dis cover if it was in fact sent. The Commissioner's assistant is not in today but is expected Monday...I will follow up with her on Monday.

#### Bob

Robert Spoerl Land Agent Div of Forests and Lands 603.271.2214 robert.spoerl@dred.nh.gov

#### Attach ment 1

#### Nash Stream State Forest

1) Please describe the ways in which the *Nash Stream State Forest* is used by the public, business, and other private entities. In particular focus on the portions of the Forest in which the existing casements and power lines coexist.

Nash Stream is the largest state owned property and is used by the public in many ways. There are recreation trails of all kinds, including hiking, snowmobiling and ATV trails on the property. The public enjoys the property in other ways as well through hunting, fishing, etc. Where the power lines currently exist on the property contains the portions of the Cohos Trail, which is a through hiking trail system. There are also many other hiking trails in the vicinity coming from Christine Lake, which access Percy Peaks, Bald Mt., Victor Head and other local sites. There is also a snowmobile trail corridor that runs through this southeast corner of Nash Stream. There are no businesses or private entities that utilize this portion of the property. A small section of the railroad goes through the property nearby to the utility ROW.

2) Have you noticed any negative impacts from the existing Eversource Energy circuits crossing *Nash Stream State Forest* Land?

No, I have not noticed any negative impacts from the existing power line ROW. However, we have not had any forest management activities in this portion of the property in a while.

3) Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

I have had very little communication from Eversource. If they are doing maintenance or any work on the line they have not let me know. Perhaps they are contacting our central office, but not the local office.

4) Do you foresee any negative impacts in the future if the existing power line will be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, I do not foresee any negative impacts if the existing power line is relocated within the easement area.

5) Do you anticipate any negative impacts to the *Nash Stream State Forest* from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

A possible negative impact from the construction would be an access issue. If there were any restrictions on bringing large equipment near or underneath the power lines that could affect the areas that we now have access to for forest management and timber harvesting.

In the area of Nash Stream where the existing transmission lines are located has both snowmobile trails and the Cohos Trail. It would be important to retain access for these user groups but also consider the visual impact increased power lines would have aesthetically.

### Attachment 2 Percy State Forest

- 1) Please describe the ways in which the Percy State Forest is used by the public, business, and other private entities. In particular focus on the portions of the Forest in which the existing casements and power lines coexist.
  - Percy State Forest is a small parcel and utilized mostly by locals. The power line easement runs right through the middle of the property dissecting it.
- 2) Have you noticed any negative impacts from the existing Eversource Energy circuits crossing Percy State Forest Land?
  - No, I have not noticed any negative impacts from the existing power line ROW. However, we have not had any forest management activities in this portion of the property in a while.
- 3) Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?
  - I have had very little communication from Eversource. If they are doing maintenance or any work on the line they have not let me know. Perhaps they are contacting our central office, but not the local office.
- 4) Do you foresee any negative impacts in the future if the existing power line will be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?
  - No, I do not foresee any negative impacts if the existing power line is relocated.
- 5) Do you anticipate any negative impacts to the Percy State Forest from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?
  - A possible negative impact from the construction would be an access issue. If there were any restrictions on bringing large equipment near or underneath the power lines that could affect the areas that we now have access to for forest management and timber harvesting. We are planning a timber harvest on this parcel in the next 1-3 years, if construction of Northern Pass restricted our access during this time that would affect our budgeting.

## Attachment 3 Cape Horn State Forest

1) Please describe the ways in which the Cape Horn State Forest is used by the public, business, and other private entities. In particular focus on the portions of the Forest in which the existing casements and power lines coexist.

Cape Horn is a unique piece of property with a distinct geological feature, a partial ring dyke, which contains globally rare plants. There are many people that climb up to the top of the "horn" despite there being no trail. You have to cross the utility ROW to access the "horn." There are also snowmobile trails that cross the power line and portions of trail that are shared with the power line. The property is also utilized for forest and wildlife management. The property is used for hunting and general enjoyment by locals as well.

2) Have you noticed any negative impacts from the existing Eversource Energy circuits crossing Cape Horn State Forest land?

Forest and Lands has to cross under the power lines to access parts of the property. In the past, there was concern from the utility company about forestry equipment crossing under the power lines.

3) Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, they have been a good steward of the property and have been cooperative.

4) Do you foresee any negative impacts in the future if the existing power line will be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

As long as the state can still retain access for people and large equipment, I do not foresee any negative impacts.

There are both rare plants and exemplary communities within close proximity to the utility easement, however, not within the existing ROW. If the impacts should expand beyond the current footprint, there may be cause for concern regarding these plants and communities.

5) Do you anticipate any negative impacts to the Cape Horn State Forest from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

A possible negative impact from the construction would be an access issue. If there were any restrictions on bringing large equipment near or underneath the power lines that could affect the areas that we now have access to for forest management and timber harvesting.

There are both rare plants and exemplary communities within close proximity to the utility easement, however, not within the existing ROW. If the impacts should expand beyond the current footprint, there may be cause for concern regarding these plants and communities. It would be important to retain access for these user groups but also consider the visual impact increased power lines would have aesthetically.



#### THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan Commissioner William Cass, P.E. Assistant Commissioner

November 22, 2016

Mr. Randy Knepper Director, Safety Division New Hampshire Public Utilities Commission 21 South Fruit Street Concord, NH 03301



Re: New Hampshire Site Evaluation Committee-Docket No. 2015-06

Joint Application of Northern Pass Transmission LLC ("NPT") and Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource") for a Certificate of Site and Facility for the Construction of a new 1,090 MW Electric Transmission Line

#### Dear Director Knepper:

The New Hampshire Department of Transportation has received your letter of October 21, 2016 regarding Eversource Energy's existing easements on certain properties administered by the Department of Transportation, Bureau of Rail and Transit. Enclosed for your use, are responses to the questions posed by the PUC Safety Division as requested in your letter.

If you have any questions or need further information, please contact Patrick Herlihy, Director of Aeronautics, Rail and Transit at 271-2449 or by email at patrick.herlihy@dot.nh.gov.

Sincerely,

Victoria Sheehan Commissioner

#### Attachment 1: Northern Rail Trail near Webster Substation

 Please describe the way in which the Northern Rail Trail near Webster Substation is used by the public, businesses, and other private entities. In particular, focus on the portion of the Trail in which the existing easements and power lines coexist.

The Northern Rail Trail connects Boscawen and Lebanon via a 60-mile stone dust surface trail. The New Hampshire Department of Resources and Economic Development (DRED) has managed the Trail on the railroad corridor property at the subject location for over 10 years. The Friends of the Northern Rail Trail have since developed a high-quality stone dust surface rail trail along the railroad corridor. Snowmobilers continue to use the Trail as a main New Hampshire snowmobile corridor trail during times of adequate snow-cover. Other seasonal Trail uses include cross country skiing, snowshoeing, dogsledding, dog sled training with wheeled vehicles, bicycling, walking, running, hiking and orienteering. Local communities occasionally run events such as 5k benefit races along the Trail.

2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the **Northern Rail Trail near Webster Substation**?

We have noticed no negative impacts to the functionality of the Trail resulting from the existing Eversource Energy circuits. As with any electric power transmission lines, the Eversource Energy circuits over the property include aesthetic impacts that are typically associated with any aerial electric power transmission lines.

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the Northern Rail Trail near Webster Substation from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

#### Attachment 2: Northern Rail Trail near South Main Street in Franklin

Please describe the way in which the Northern Rail Trail near South Main Street in Franklin is used by the
public, businesses, and other private entities. In particular, focus on the portion of the Trail in which the existing
easements and power lines coexist.

The Northern Rail Trail connects Boscawen and Lebanon via a 60-mile stone dust surface trail. The New Hampshire Department of Resources and Economic Development (DRED) DRED has managed the Trail on the railroad corridor property at the subject location for over 10 years. The Friends of the Northern Rail Trail have since developed a high-quality stone dust surface rail trail along the railroad corridor. Snowmobilers continue to use the Trail as a main New Hampshire snowmobile corridor trail during times of adequate snow-cover. Other seasonal Trail uses include cross country skiing, snowshoeing, dogsledding, dog sled training with wheeled vehicles, bicycling, walking, running, hiking and orienteering. Local communities occasionally run events such as 5k benefit races along the trail.

2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the Northern Rail Trail near South Main Street in Franklin?

We have noticed no negative impacts to the functionality of the Trail resulting from the existing Eversource Energy circuits. As with any electric power transmission lines, the Eversource Energy circuits over the property include aesthetic impacts that are typically associated with any aerial electric power transmission lines.

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the Northern Rail Trail near South Main Street in Franklin from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

#### Attachment 3: NH Rail-Concord/Lincoln Line

Please describe the way in which the NH Rail-Concord/Lincoln Line is used by the public, businesses, and other
private entities. In particular, focus on the portion of the Rail in which the existing easements and power lines
coexist.

The Concord-Lincoln Railroad Line is seasonally active with freight rail (General Merchandise, which includes clay between Concord and Tilton). Winter (only) use includes snowmobiling (primarily), snowshoeing, cross country skiing, dogsledding and is managed by the New Hampshire Department of Resources and Economic Development (DRED).

2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the NH Rail-Concord/Lincoln Line?

No

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the NH Rail-Concord/Lincoln Line from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

#### Attachment 4: NH Central Rail-Groveton Branch in Bethlehem

 Please describe the way in which the NH Central Rail-Groveton Branch in Bethlehem is used by the public, businesses, and other private entities. In particular, focus on the portion of the Rail in which the existing easements and power lines coexist.

The railroad is only seasonally active with freight rail (General Merchandise) in Bethlehem. Winter (only) recreational use in Bethlehem includes cross country skiing, snowshoeing and dogsledding as managed by the New Hampshire Department of Resources and Economic Development (DRED).

2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the NH Central Rail-Groveton Branch in Bethlehem?

No.

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the NH Central Rail-Groveton Branch in Bethlehem from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

#### Attachment 5: NH Central Rail-Groveton Branch in Lancaster

 Please describe the way in which the NH Central Rail-Groveton Branch in Lancaster is used by the public, businesses, and other private entities. In particular, focus on the portion of the Rail in which the existing easements and power lines coexist.

The railroad is active year-round with freight rail (General Merchandise) in Lancaster.

2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the NH Central Rail-Groveton Branch in Lancaster?

No.

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the NH Central Rail-Groveton Branch in Lancaster from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

#### Attachment 6: NH Central Rail-Groveton Branch in Dalton

 Please describe the way in which the NH Central Rail-Groveton Branch in Dalton is used by the public, businesses, and other private entities. In particular, focus on the portion of the Rail in which the existing easements and power lines coexist.

Please note that in Dalton, the railroad line is called the Mountain Division Railroad Line, not the NH Central Rail-Groveton Branch. Regardless, this section of the Mountain Division Railroad Line in Dalton is currently out of service, but the Department anticipates that in the coming year it may be approached by the New Hampshire Department of Resources and Economic Development (DRED) to seek permission to utilize this section for recreational purposes, likely for winter only.

Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the NH Central Rail-Groveton Branch in Dalton?

No.

3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes?

Yes, Eversource Energy has been very cooperative and restored property after maintenance work on its facilities.

4. Do you foresee any negative impacts in the future if the existing power line bill be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way?

No, we don't foresee any negative impacts nor do we anticipate that the relocation will affect the rights of the public in using the land.

5. Do you anticipate any negative impacts to the NH Central Rail-Groveton Branch in Dalton from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, and in what way?

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# STATE OF NEW HAMPSHIRE OFFICE OF THE ADJUTANT GENERAL STATE MILITARY RESERVATION, 1 MINUTEMAN WAY CONCORD, NEW HAMPSHIRE 03301-5607

William N. Reddel III, Major General The Adjutant General

Phone: 603-225-1200 Fax: 603-225-1257 TDD Access: 1-800-735-2964

January 3, 2017

Randy Knepper Director, Safety Division New Hampshire Public Utilities Commission 21 South Fruit Street Concord, NH 03301

Re: New Hampshire Site Evaluation Committee-Dockets No. 2015-06, Joint Application of Northern Pass Transmission LLC ("NPT") and Public Service Company of New Hampshire, d/b/a Eversource Energy ("Eversource"), for a Certificate of Site and Facility for the Construction of a New 1090 MW Electric Transmission Line

Dear Mr. Knepper:

I am responding to your request for comment regarding NPT and Eversource (jointly, the "Applicants") Application with the Site Evaluation Committee ("SEC") for a Certificate of Site and Facility to construct a 192-mile high voltage electric transmission line from Pittsburg, New Hampshire to Deerfield, New Hampshire ("Northern Pass Project"). As part of its Application to the SEC, NPT and Eversource filed petitions with the Public Utilities Commission ("PUC") to cross land owned by the state, pursuant to RSA 371:17 and particularly to cross state land of the Adjutant General's Department in Pembroke, New Hampshire.

Response to the request for comment are provided below.

1. Please describe the ways in which the property referred to as State Land-Riverwood Drive & Sheep Davis Road is used by the public, business, and other private entities. In particular, focus on the portions of the State Land in which the existing easements and powerlines coexist. - The state land, which is located at Riverwood Drive and Sheep Davis Road, Pembroke NH, is the location of the New Hampshire National Guard Regional Training Institute. The property is known to contain a number of rare, threatened and endangered species for which we are conducting land management activities to sustain those The National Guard is also proposing to construct an Army National Guard Readiness Center on the property. The property is also expected to provide opportunities for various field training activities. The primary use of the utility easement area is to cross from the roadaccessible eastern portion of the property to the western road-inaccessible portion of the property. Currently, a number of dirt two-track paths and one class 6 town road provide the means to cross the utility easement. The proposed Army National Guard Readiness Center will require the construction of a 24-foot wide bituminous road for permanent access for military, personnel and delivery vehicles. Coordination with the Applicants on the location of this road is on-going and expected to provide the necessary crossing.

The existing easement and powerline corridor provide public access to interior portions of the state land that have not been previously restricted. This has been primarily for unsanctioned All-terrain vehicle usage within the easement area.

- 2. Have you noticed any negative impacts from the existing Eversource Energy circuits crossing the property referred to as State Land-Riverwood Drive & Sheep Davis Road? There are currently no known negative impacts from the existing Eversource energy circuits.
- 3. Has Eversource Energy been a good steward of the property in the past and been cooperative in terms of scheduling, communicating, and implementing activities for maintenance purposes? Eversource has been a good steward of the property and, for the most part, cooperative in terms of scheduling maintenance. They have contacted us in the past and removed dumped debris to aid in maintenance. However, there have been some occasions where we were not notified.
- 4. Do you foresee any negative impacts in the future if the existing power line will be relocated within the existing easement? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way? We do not foresee any additional negative impacts from relocating the existing power line in the existing easement. We do not anticipate the relocation will affect the rights, if any, of the public to use the land.
- 5. Do you anticipate any negative impacts to the property referred to as State Land-Riverwood Drive & Sheep Davis Road from the construction of the Northern Pass Transmission Line? Do you anticipate that the relocation will affect the rights of the public in using the land? If yes, in what way? We do not foresee any additional negative impacts from construction of the Northern Pass Transmission Line within the existing easement. We do not anticipate the construction of Northern Pass Transmission Line will affect the rights, if any, of the public to use the land.

The point of contact for this letter is Zachary Boyajian, State Environmental Supervisor, at 603-227-1439.

Respectfully,

William N. Reddel, III Major General, NHNG The Adjutant General