NORMANDEAU ASSOCIATES
Environmental Consultants

July 18, 2016

Ammy Heiser, Chair
Pembroke Conservation Commission
311 Pembroke Street
Pembroke, NH, 03275

Re: Wetland File No. SEC -2-15-02817 Northern Pass Transmission, LLC and Public Service Company of New Hampshire d/b/a Eversource Energy Request to Deny Wetlands Permit Application

Dear Ms. Heiser:

On behalf of Northern Pass Transmission, LLC ("NPT"), we are responding to the May 13, 2016 comments you e-mailed to Craig Rennie, New Hampshire Department of Environmental Services ("NHDES") Wetlands Bureau, regarding the wetland permit application submitted for Northern Pass.

Tree removal and ROW maintenance

The width of the proposed tree removal in Pembroke is approximately 50 feet or less in most locations. This is the minimum necessary for safety and reliability purposes. Future vegetation maintenance by Eversource will be conducted in accordance with the Utility Maintenance Notification (UMN) (RSA 482-A:3, XV) permitting process for wetlands and streams and in accordance with the Permit by Notification (PBN) (RSA 483-B) permitting process for maintenance work within Shoreland areas. The work is conducted consistent with the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Water bodies in New Hampshire* published by the New Hampshire Department of Resources and Economic Development (NHDRED) (January 2010) or applicable revision of this document. That document is available here: http://www.nhdfl.org/library/pdf/Publications/DESUtilityBMPrev3.pdf. Eversource does not currently use herbicides to clear or maintain its ROWs in New Hampshire. All work is by mechanical mowing, as it has been for many years. There may be circumstances where judicious use of herbicides to control invasive species is extremely beneficial, particularly where rare plant communities are at risk. If herbicides were used in the future, it would be part of an Integrated Vegetation Management Program (IVMP). An IVMP utilizes target application of herbicides and does not spray in wetlands, waterways or within wellhead protection zones as dictated by NHDES.

ATVs and Aquatic Connectivity

ATV use in the ROW is primarily the responsibility of the underlying landowner. To discourage use of ATVs and other off-road vehicles that is not authorized by the underlying landowner, NPT and where applicable, Eversource New Hampshire, will work with landowners to install gate and barrier systems across access points adjacent to public roadways, where appropriate. The proposed work in

the ROW will not permanently affect aquatic connectivity. Streams flow freely across the ROW, as they do across farms, orchards, forests, etc. In many locations, shrubby vegetation grows along the streams and provides shade and cover. No permanent roads across wetlands or streams are proposed by the Project.

Invasive Species

NPT will take precautions to minimize the risk of invasive species spread associated with construction and maintenance activities in the ROW. These are outlined in the proposed avoidance and minimization commitments (Appendix B of the Natural Resource Mitigation Report (SEC Appendix 32) and the Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire.

Rivers

Rivers and streams are important resources in every town, and NPT has avoided and minimized direct and indirect impacts to all of them in the Project area to the extent practicable. Northern Pass will not directly impact the Merrimack, Soucook and Suncook Rivers. The Project lines will pass overhead in the ROW, as the existing transmission lines do now, with no work in the channel of any of these rivers, and no new bridging across the rivers. No direct permanent impacts to any other perennial, intermittent or ephemeral streams will occur in Pembroke, and all resource areas affected by temporary impacts will be restored.

High Quality Wetlands

We applaud your efforts to identify and protect your significant wetlands. Northern Pass also worked hard to avoid and minimize impacts to *all* wetlands and streams in the Project area. As you note, the two tributaries you consider top priorities are already located within the existing ROW. Once construction is complete, all resource areas affected by temporary impacts will be restored in accordance with restoration plans and permit conditions, and these important resources will then continue to function as they currently do. NPT is preparing more detailed streambank and wetland restoration plans for contractor use. NPT is not intending to disturb or replace culverts unless it becomes necessary in the course of construction. The quantity of permanent wetland impacts in Pembroke is 199 square feet. Secondary impacts are primarily clearing along upland stream buffers and forested wetlands. As part of the Project's mitigation package, which is an attachment to the wetlands application, NPT has proposed the preservation of an 86-acre conservation property in Pembroke with a beaver wetland/perennial stream complex, well managed hardwood/pine forest, and several vernal pools.

Aquifers

The Project will comply with all state and federal guidelines for the protection of groundwater and surface water quality, as described in the Alteration of Terrain (AoT) and 401 Water Quality applications. Wells and other manmade structures in the ROW will be protected during construction. Northern Pass does not anticipate any impacts to aquifers or other drinking water supplies.

Wildlife

NPT recognizes the potential risk of direct wildlife impacts during construction, and has proposed avoidance and minimization methods to reduce this risk, including surveys for and removal of turtles and snakes within construction areas to avoid crushing impacts, barrier fencing to limit construction disturbance, and timing restrictions where necessary. Compensatory mitigation is also planned to address construction impacts. Loss of forest cover may displace individual forest animals, but forested habitat is abundant in New Hampshire, and no population level effects are anticipated. Additionally, many of the species identified in your letter are rare because the open habitats they require are declining, and the existing ROW provides one of the few remaining suitable habitats for their survival. The open habitat of the ROW has unique host plants for some of the rare insects, suitable sites for basking and nesting reptiles, and suitable habitat for shrubland birds. In some locations, Eversource has maintenance agreements with New Hampshire Fish & Game to manage the ROW specifically to benefit these species. This Project will not have a detrimental long-term effect on these open habitats or the species that require them.

Critical nesting areas

Construction BMPs specifically address avoiding nesting habitat and included timing restrictions to avoid impacts to suitable habitats during sensitive nesting periods. Any wildlife that is moved out of the construction zone will be placed in approved locations that are safe and suitable for them.

Threatened and endangered plants

The six threatened and endangered plant species mentioned in your letter need open habitat and periodic disturbances, like those found in the existing ROW, to survive. These rare species are present in the ROW due to the periodic ROW maintenance to keep it open. If the ROW were not maintained at regular intervals, those plant populations would disappear. Construction BMPs approved by New Hampshire Natural Heritage Bureau (NHNHB) will minimize construction-related impacts and promote restoration once construction is complete. Our consultations with the NHNHB to identify species-specific avoidance and minimization measures are ongoing.

Forested Wetland Conversion/Thermal Impacts

The majority of the tree removal in Pembroke will take place where an additional 50 feet of ROW width was needed to design the Project to comply with Federal Aviation Administration (FAA) requirements. A portion of this additional ROW includes wetlands that extend onto the existing cleared ROW, where shrub and emergent vegetation dominates. The removal of 50 feet or less of additional canopy cover is not expected to have any measurable thermal effect, particularly once shrub and emergent vegetation is re-established.

Magnitude of the Application Materials

We appreciate that this application is much larger than what most conservation commissions are accustomed to reviewing, and we appreciate the time and effort your Commission has expended on the review of this Project. Within the application documents, there are sections and/or tables which

provide data specific to each town, and the plan sheets have all town boundaries and specific resource and impact information. Project personnel have met with various towns and agencies at their request to assist in identifying the portions of the applications of greatest relevance, and we would be pleased to do so with you as well.

Avoiding and Minimizing Impacts

Northern Pass has avoided and minimized wetlands impacts, and has done so to the greatest extent practicable – as required by DES rules. The direct impact of 2.54 acres for a 192 mile project is very low. If the Project were constructed underground at the outer edge of a road or highway ROW (i.e., outside the improved areas of the roadways), the impacts would be considerably greater, as trenching through rare plant communities, wetlands and streams has a greater impact than spanning these areas overhead. Although Northern Pass recognizes that the placement of lines underground within a road bed or shoulder is less impacting to natural resources, taking this approach for the entire Project route is not practicable and is not permitted along I-93. Attached are comments on the U.S. Department of Energy's draft Environmental Impact Statement ("DEIS") that describe the challenges of placing the Project along I-93.

We believe the foregoing information addresses the comments expressed in your letter to NHDES, and appreciate the time and effort your Commission has expended so far on the review of this Project.

Sincerely,

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As agent for Northern Pass Transmission, LLC.
Senior Principal Scientist
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Northern Pass EIS Website Comment Receipt

Refers to Comment placed on Jan 11, 2016

ID: 8659

Date Entered: Jan 11, 2016

Source: Website

Topics: Alternatives

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Comment:
COMMENT OF NORTHERN PASS TRANSMISSION LLC
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

In its Draft Environmental Impact Statement ("DEIS"), the U.S. Department of Energy ("DOE") concluded that 11 alternatives warranted detailed consideration. Northern Pass Transmission LLC ("Northern Pass" or the "Project") submits this comment for the purpose of identifying considerations that Northern Pass has determined render some of those alternatives infeasible – considerations that Northern Pass believes were not adequately weighed in DOE's determination of which alternatives warranted detailed consideration. Accordingly, Northern Pass urges DOE to be clear in the Final Environmental Impact Statement ("FEIS") with respect to the considerations described below that render infeasible in any practical or legal sense certain of the alternatives evaluated in the DEIS. Northern Pass notes that the alternatives that it believes have such "fatal flaws" are not alternatives that appear to enjoy any particular public support.

Alternative 3 – Underground along the Route Analyzed Under Alternative 2

As described in the DEIS, Alternative 3 would be a completely underground alternative that would follow the same alignment as Alternative 2 except for a slight deviation to accommodate locating the converter station at the intersection of the existing PSNH transmission right-of-way ("ROW") and North Road in Deerfield. DEIS at 2-15. The DEIS notes that this would entail underground placement along a portion of the existing PSNH ROW that is subject to 644 easements, many of which do not authorize an underground transmission line. The DEIS acknowledges that all easements that do not permit underground transmission would have to be renegotiated and suggests that this may be "challenging" to accomplish. Id. Northern Pass believes that including this option among the reasonable alternatives seriously underestimates the challenge associated with amending the easements.

Northern Pass has carefully analyzed the situation with the easements governing the ROW. It has determined that it was not the practice of PSNH or its predecessor companies to seek authorization for underground transmission in the easements it obtained prior to 1960. As a result, the overwhelming majority of the 644 easements for the ROW do not permit underground transmission lines. To renegotiate hundreds of easements, where a failure to achieve the amendment of even a single easement would preclude that alternative (and where each property owner would clearly understand the leverage he or she held) makes it very clear to Northern Pass that this alternative is not in any meaningful sense a reasonable alternative, neither practically nor economically.

Alternatives 4A, 5A and 6A – Underground along the I-93 Corridor

Three of the 11 alternatives evaluated in the DEIS propose construction of the Project underground along the I-93 corridor, including through the White Mountain National Forest ("WMNF") and Franconia Notch State Park. The DEIS acknowledges that burial of the cable underneath the pavement or in the median of I-93 would not be permitted, but the DEIS posits that the cable could be buried on either the east side of the northbound lane or the west side of the southbound lane. However, as far as Northern Pass can determine, the DEIS does not build into its analysis of the construction the impacts associated with the particular restrictions under federal and state law that would apply to construction along I-93. Northern Pass believes that those restrictions make the I-93 alternatives completely infeasible. Among other things, the legal and practical challenges associated with such an undertaking are insurmountable; the route entails unanalyzed, but potentially significant adverse, environmental consequences in one of New Hampshire's most treasured locations; and the I-93 alternatives offer no offsetting environmental benefits that might make those alternatives worth the challenge of pursuing them. In short, constructing Northern Pass along the I-93 corridor is not a reasonable alternative.

The DEIS describes the anticipated approach to burial along roadways in Section 2.3.2.5. In doing so, it does not differentiate among the various roadway options it considers. Compare Sections 2.3.7.5 and 2.3.9.5 (incorporating by reference the discussion in Section 2.3.2.5). Thus, for all underground roadway options, the DEIS describes the construction process as follows:

"Short-term disturbance for the trench and construction activities is assumed to be 10 feet (3 m) wide, with the majority of disturbance limited to the road surface (approximately 30 feet [9 m] wide) and adjacent, previously disturbed areas. One lane of the road would be temporarily closed to traffic to accommodate construction activities. Construction and installation of the underground cables associated with the Project would be scheduled to meet local requirements regarding noise

limitations, construction work hours, etc. and to minimize the impact on local traffic, residents, and businesses. Lane closures would be in effect for days to weeks and for short segments of road along the route."

DEIS at 2-11 emphasis added).

The DEIS also describes what would be involved for a “new transmission route (rather than within an existing roadway),” which may more accurately describe the impacts that would be involved for construction along the I-93 corridor, given that, as explained below, any such construction would have to occur at the outer edge of the I-93 Limited Access Right of Way (“LAROW”):

"*t is assumed that an area approximately 40 feet (12 m) wide would be cleared of vegetation to accommodate this construction. Future vegetation growth would need to be limited in this 40-foot-wide corridor to prevent disturbance of the cables by roots. The area of direct, short-term disturbance for installation of the trench would be 10 feet (3 m) wide."*

Id.

Finally, the DEIS describes the splice pads that would be necessary for any underground installation:

"Cable splice pads would be utilized for the installation and joining of underground cable segments. The cable splice pads would be temporary areas within which splicing would be conducted. Upon completion of a necessary slice, the area would be backfilled and no longer present. The splice pads areas would be necessary approximately every 1,800 feet (549 m). The distance between splice pads is dependent on many factors, including: (i) local conditions, including site conditions and local road load and other limits; (ii) the maximum size of cable reels that can be transported to a particular location; and (iii) the bending radius of the cable."

Id.

In short, according to the DEIS, underground construction along roadways, including I-93, would entail short-term lane closures and significant construction activity, along with the associated disruptions to traffic. It would also entail some permanent impacts on vegetation.

These descriptions in the DEIS accurately capture the construction techniques and impacts associated with underground burial along most public roads and areas of new underground construction in New Hampshire. However, these descriptions do not take into account the restrictions that would apply to efforts to construct Northern Pass underground along I-93, particularly through Franconia Notch. Specifically, the DEIS assumes that: i) construction could occur in the roadways and immediately adjacent previously disturbed areas; ii) lane closures would be possible; iii) only previously disturbed areas would be involved; and iv) future vegetation could be restricted in a 40-foot wide area. Northern Pass does not believe that these assumptions can be permissibly applied to the I-93 corridor.

Unlike the more traditional public highways where Northern Pass proposes to construct the Project, I-93 is governed by a separate and more stringent set of principles that are applicable to longitudinal utility installations along interstate highways. While not expressly prohibiting longitudinal utility installations, if states choose to permit them within interstate highways, federal law requires approval of an “accommodation plan” from the Federal Highway Administration to insure the “safe and efficient use of the highways”. 23 C.F.R. §645.209(c). Any such plan must, among other requirements, establish a utility strip “along the outer edge of the right-of-way by locating a utility access control line

between the proposed utility installation and the through roadway and ramps." 23 C.F.R. §645.209(c)(2)(v) (emphasis added).

The New Hampshire Department of Transportation ("NHDOT") has adopted, and the Federal Highway Administration has approved, the Utility Accommodation Manual, Bureau of Highway Design, New Hampshire Department of Transportation, February 2010 ("UAM"). This document governs the use of New Hampshire highways for utilities. The UAM makes it clear that freeways like I-93 "are dedicated to allow for optimum mobility and safety of through traffic. The basic element in the design and operation of these highways to achieve this end is the limiting of access to the highway." UAM § XIII.A. In accordance with this objective, NHDOT has adopted strict requirements governing any proposed longitudinal use of freeways like I-93 beyond those applicable to the standards for other highways.

Addressing new underground utility installations along freeways, the UAM states clearly: "Longitudinal installations are not permitted within the LAROW lines parallel to either the through roadway or its ramps." UAM, § XIII.B.4 (emphasis added). While the Commissioner may grant a design exception from this prohibition, to be eligible for a design exception, an applicant must demonstrate "extreme hardship." To meet this requirement, the applicant must show, among other things, that "[a]lternate locations are not available or cannot be implemented at reasonable cost," and that the accommodation requested "will not adversely affect the safety, design, construction, operation, maintenance, or stability of the freeway." UAM, § XIII.B.6(a) and (c). As shown by the DEIS and by the route along state roads that Northern Pass supports, the Project plainly has other viable alternatives. Specifically, there are public roadway options other than I-93. Moreover, construction along the I-93 corridor would affect operation of the highway for the period of construction. Therefore, Northern Pass cannot plausibly meet the UAM-prescribed standard for a design exception.

Further, in the unlikely event Northern Pass were to obtain a hardship exception, NHDOT policy reflects the federal requirement that longitudinal utilities be placed at the outer limits of the ROW. The UAM states: "In general, utilities are to be located and designed in such a manner that they can be constructed and/or serviced without direct access from the through roadways or connecting ramps." UAM, § XIII.B.6(e)(1) (emphasis added). The UAM suggests that any accommodation plan should limit access for construction and servicing to frontage roads, where available, nearby public roads and streets, or trails that connect to the outer edge of the LAROW. UAM, § XIII. B.6(e)(2). In short, the UAM prohibits access from the highway itself except in extreme circumstances.

The DEIS does not consider how feasible the approaches to construction prescribed by the UAM would be for underground construction of Northern Pass along I-93. However, having analyzed the issue, it is the strong view of Northern Pass that, along the relevant portion of I-93 through the White Mountain National Forest and Franconia State Park, the UAM-prescribed access options are not available to accommodate the kind of construction activities that would be required for Northern Pass, particularly without considerable disturbance of previously undisturbed areas that the DEIS does not evaluate and that Northern Pass deems wholly unnecessary.

More specifically, based on its visual examination of the relevant area, Northern Pass has concluded that, except for a narrow shoulder, the area between the I-93 roadway and the outer edge of the I-93 ROW is undisturbed. To construct Northern Pass in that area would require extensive tree, vegetation and ledge removal, measures that are largely unnecessary along the state roads Northern Pass has designated in its project design in the area of the WMNF. Wetland areas likewise also appear to be located along the outer edge of the LAROW and would be impacted as well. Finally, the required clearing and terrain alteration would likely permanently alter the experience of travelers along the I-93 corridor without achieving any benefits that could not be achieved using the state roads Northern

Pass has proposed, where the environmental impacts would be temporary and much reduced. For these reasons, Northern Pass believes it is both unrealistic and unwise to pursue the I-93 corridor as an option for underground construction of the proposed transmission line.

Entirely separate barriers to the use of the I-93 corridor by Northern Pass that are of equal or greater significance arise under a 1977 Memorandum of Agreement ("MOA") that led to a Stipulated Order of Dismissal in Appalachian Mountain Club ("AMC") v. Adams, Case No. 74-208 (D.N.H.), a case that entailed extended litigation over the construction of I-93 through Franconia Notch. Like those posed by the state and federal regulations governing underground utility construction along I-93, the barriers to construction that are reflected in the MOA do not appear to be accounted for in the DEIS.

The MOA, which was signed by seven state and non-governmental parties, embodied an agreement for the design of I-93 through Franconia Notch State Park. Among other things, the MOA provided that "there will be no additional lanes or major construction within the Park." MOA at ¶IV.2.2 (emphasis added). Changes as minor as the addition of a median divider, which was proposed to reduce highway fatalities along that stretch of I-93, required amendment of the MOA and judicial approval. AMC v. Adams, supra, Motion to Modify Stipulated Order (April 1, 1993). It is reasonable to anticipate that some of the parties to that MOA who have also been active in this NEPA process would contend that construction of an underground transmission line, even at the outer edge of the I-93 LAROW, is an activity that is not permitted under the MOA.

While Northern Pass is not a highway construction project, the parties who were important to the agreement reflected in the MOA may well contend that the MOA is not limited to highway construction projects, but rather covers all construction within the LAROW. Moreover, it is reasonable to expect that NHDOT would want to limit any amendments to the MOA to changes that support highway safety. Given these considerations and the availability of other roadway burial options for Northern Pass, there would seem to be no justification for testing the limits of the MOA, especially in light of the strong cultural and environmental values associated with Franconia Notch.

Alternatives 6A and 6B – Co-located AC Lines from Franklin to Deerfield

Two of the alternatives addressed in the DEIS, Alternatives 6A and 6B, involve co-locating the existing 115 kV AC line with the new 345 kV AC line from the proposed converter station at Franklin to Deerfield. The DEIS acknowledges that this approach has not undergone technical design, but "it is assumed that the structures supporting the co-located lines would generally resemble the structures in the Proposed Action, and would be of comparable height." DEIS at 2-29. Northern Pass has likewise not performed a detailed technical analysis of such a design. However, even without such an analysis, it can identify several reliability-related concerns with such a design. More fundamentally, it does not believe that it can be assumed that the structure heights could be as indicated in Figure 2-7.

The structure drawings shown on the top right and bottom of Figure 2-7 do not appear to take into account all electrical clearances necessary for the various conditions that each circuit may encounter. In order to reduce the structure heights for the 345 kV portion of the line, Northern Pass designed the Project to relocate and rebuild the existing 115 kV line and to place the 345 kV line on H-frame structures, which permit a lower height. However, if the 345 and 115 kV lines were co-located on the same structures, at a minimum, the H-frame structures would have to be taller than the one depicted in Figure 2-7 in order to achieve the necessary electrical separation. In addition, easement restrictions applicable to certain portions of the Alternative 3 route would preclude using H-frame structures because electrical clearance requirements could not be satisfied. The taller lattice structures shown on the upper left of Figure 2-7 would likely be sufficient to accommodate the required electrical separations, although that would have to be confirmed. However, if the goal of Alternatives 6A and 6B

is to reduce visibility of the Project, that will not be achievable anywhere the H-frame structures are assumed in the Northern Pass design from Franklin to Deerfield. The potentially reduced visibility of the narrower corridor permitted by co-locating circuits on a single structure will likely be more than offset by the taller structures that would be required to achieve the necessary electrical separation.

Co-locating two sets of AC circuits on a single structure would also affect system electrical reliability in at least two distinct ways. First, putting two circuits on any single structure results in a condition that would have to be studied by ISO-NE under the standards of the Northeast Power Coordinating Council, which is the Regional Reliability Authority. Specifically, ISO-NE would have to evaluate the simultaneous loss of two adjacent transmission circuits on a multiple circuit tower as a single event and determine the impact to the grid associated with such a design. ISO-NE has not studied this design configuration, and thus new, potentially time-consuming studies would have to be performed to determine whether additional electrical infrastructure would be required to accommodate this design.

Additionally, in order to protect the safety of the linemen performing maintenance on the 345 kV line, at a minimum for the lattice structure design shown on the top right of Figure 2-7 and the H-frame structure design shown on the bottom of that figure, it would likely be necessary to de-energize the 115 kV line located below it when service is being performed. Turning off the power to two different lines when only one requires service would obviously decrease the reliability of the resulting service.

COMMENTS OF NORTHERN PASS TRANSMISSION LLC
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT
WHITE MOUNTAIN NATIONAL FOREST
AND FRANCONIA NOTCH

In October 2015, Northern Pass Transmission, LLC ("Northern Pass" or the "Project") advised the U.S. Department of Energy ("DOE") and the U.S. Forest Service ("Forest Service") that its now proposed transmission route through the White Mountain National Forest ("WMNF" or "Forest") is the route that has been designated Alternative 7 in the Supplement to the Draft Environmental Impact Statement ("Supplement"). Northern Pass supports Alternative 7 in lieu of its previously proposed route design, which the Draft Environmental Impact Statement ("DEIS") designates as Alternative 2. Northern Pass is no longer pursuing Alternative 2. Under Alternative 7, within the WMNF, the transmission line would be located aboveground for less than a mile in an existing transmission line corridor held by Public Service Company of New Hampshire dba Eversource Energy ("PSNH"), near Stark, and underground within the New Hampshire Route 112 and Route 116 corridors for the remainder of the route through the WMNF. The purpose of this Comment is to address those matters in the DEIS and the Supplement that relate specifically to the portion of the Project that is proposed to be located within the Forest.

A. Alternative 7 of the Supplement Should Be the Forest Service's and DOE's Preferred Alternative Through the WMNF

1. Alternative 7 Is Consistent with the WMNF Forest Plan

Alternative 7 should be the Forest Service's preferred alternative for the Project because Alternative 7 is consistent with the WMNF Forest Plan. The same cannot be said of many of the other alternatives, which would require either amendments to the WMNF Forest Plan or revisions to the alternative in order for the Forest Service to adopt the alternative. Specifically, within the WMNF, the route alignment for Alternative 7 is almost entirely underground along an existing right-of-way ("ROW") containing public highways and has only a small portion located aboveground within an existing ROW held by PSNH in Stark, New Hampshire. Thus, Alternative 7 is consistent with the requirements of the WMNF Forest Plan's Management Standards ("Management Standards"), including those regarding recreation,[1] because: (i) activities and uses within the existing PSNH ROW are subject only to the deed restrictions that pre-date the WMNF; and (ii) Management Standard S-3, which relates to traversing the Appalachian Trail ("AT"), does not apply to an *underground* utility line in an existing roadway that does not impair or implicate the aesthetic and recreational experience of the AT.

[1] *See* Recreation General Standard S-2 and Management Standard S-3 (specific to traversing the AT, including those under Management Area 8.3 ("MA 8.3"). *Compare* Supplement at 11; DEIS Appendix F at F-27–30.

i. Management Standards Do Not Apply in the Area of the Existing PSNH ROW

Northern Pass agrees with the conclusion in the DEIS that Management Standards do not apply to the portion of the Project that would be located in the area of the existing, private PSNH ROW – i.e., the portion of the proposed transmission line near Stark. The Forest Service purchased the WMNF pursuant to its Weeks Act authority, and under the Weeks Act, the Forest Service cannot regulate activities within the scope of an outstanding right. An outstanding right is a right that existed prior to the time of the Forest Service's acquisition of the relevant lands. *See Minard Run Oil Co. v. United States Forest Service*, 670 F.3d 236, 251 (3d Cir. 2011); *see also* Forest Service Manual 2734.2 ("[t]he holder of outstanding rights perfected on acquired land prior to Forest Service acquisition . . . may exercise those rights without obtaining a special use authorization, unless the document creating the rights provides for an additional authorization").

Because the PSNH ROW, a private interest held by PSNH, pre-dates the United States' acquisition of the WMNF under the Weeks Act and the creation of the WMNF Forest Plan, all activities and uses occurring within the ROW are governed by the existing deed or other governing document. *See* DEIS at 3-115; *see also* DEIS at F-27 (stating that portions of the existing PSNH transmission route are managed consistent with deed transfer language, not with Management Standards). Northern Pass agrees with the Forest Service that, when an "existing line was constructed on private land that subsequently was purchased by the Federal government to become part of the [National Forest Service] . . . the line is an easement (property right) that remains in effect," and the "standards and guidelines in the Forest Plan would not apply." DEIS at F-1.

ii. As the DEIS Acknowledges, Management Standard S-3 Related to the AT Does Not Apply to An Underground Utility

In developing the WMNF Forest Plan Management Standards, the Forest Service crafted Management Standards applicable to the AT (e.g., MA 8.3) with the purpose of maintaining the recreational experience and visual character of the setting.[2] Specifically, the Forest Service's purpose in developing the specific Management Standards applicable to the AT was to "[p]rovide for the conservation and enjoyment of the nationally significant scenic, historic, natural, and cultural qualities of the land through which the trail passes; [p]rovide opportunities for high quality outdoor recreation experiences, including a sense of remoteness and solitude; and [r]ecognize and strengthen the level of partnership, cooperation and volunteer efforts integral to AT management."[3]

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[2] WMNF Forest Plan at 3-45; *see also* MA 8.3, Management Standard S-1, S-2, S-3.

[3] *See* WMNF Forest Plan at 3-45.

To effectuate this purpose, the Forest Service manages the AT to maintain the desired condition of the lands by assessing the appropriate "development levels and levels of use" on a case-by-case basis. *See id.* ("Development levels and levels of use will vary by location, but the management area will emphasize a remote backcountry recreation experience in a predominantly natural or natural-appearing landscape."). With respect to utility development, the WMNF Forest Plan states that "new utility lines or rights-of-way are prohibited [in WMNF MA 8.3] unless they represent the only feasible and prudent alternative to meet an overriding public need."[4] Importantly, however, as the Forest Service itself noted in the DEIS, the Forest Service's intended purpose behind Management Standard S-3 "is to maintain the recreational experience and visual character of the *setting and therefore it only relates to aboveground utility lines and clearing of rights-of-way*." DEIS at F-28 (emphasis added); *see* WMNF Forest Plan, at 3-46 ("Recreation impacts will be managed to protect cultural and natural resources and to minimize visual disturbance."). By ensuring "burial on the WMNF," and by ensuring that any "aboveground portions would be in areas authorized under an existing easement that gives the easement holder the right to construct new utility lines," Alternative 7 will not permanently alter or disturb the landscape, and thus Management Standard S-3 does not apply. DEIS at F-28.

Importantly, the underground utility line will be located in an existing ROW, not a new one. Following construction, the underground utility line will not be visible, and the appearance of the existing roadway corridor will be restored to pre-construction conditions. Thus, any construction impacts will be of limited duration and occur in an existing roadway with existing traffic and its related impacts to the recreational and aesthetic benefits of the AT. For these reasons, as noted in the DEIS, Management Standard S-3 does not apply to Alternative 7. DEIS at F-30.

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[4] WMNF Forest Plan, at 3-48 (Management Standard S-3). As Northern Pass has previously explained, even if Management Standard S-3 applied, the Project would satisfy the Standard because an overriding public need exists to provide clean, reliable, and low-carbon energy to New England. Alternative 7 will provide 1,090 megawatts ("MW") of clean, low-carbon, base-load power to New England. The 1,090 MW of power the Project will be able to deliver is approximately 98 percent hydropower. Thus, the Project will reduce New England's GHG emissions by reducing the region's reliance on fossil fuel-fired power. DEIS at S-4. Additionally, Alternative 7 will provide reliably sourced, diversified baseload power to the New England electric grid,[4] reducing congestion, mitigating overloads, and diversifying power resources. *High Sierra Hikers Assn. v. Weingardt*, 521 F. Supp. 2d 1065, 1079 (N.D. Cal. 2007); *Northern Pass Transmission LLC,* 134 FERC ¶ 61,095 at P26, Dkt. No. ER11-2377-000 (2011). *See also First Iowa Hydro-Electric Cooperative v. FPC*, 328 U.S. 152, 171−74, 180 (1946) (holding that there was an overriding public interest in implementing the Federal Power Act, and the federal interests identified in the Act included reduced energy costs); 33 C.F.R. § 320.4(j)(2) (identifying "national energy needs" as a significant issue of overriding national importance for the U.S. Army Corps of Engineers).

B. Alternative 7 Has the Same or Lower Potential Impacts in the WMNF As Many of the Other Alternatives

As noted above (and discussed in further detail below), among the reasonable alternatives,[5] Alternative 7 is the most environmentally protective.

Visual impact reductions. In its separately submitted Comment on the Visual Impact Analysis contained in the DEIS, Northern Pass has outlined the many ways in which the DEIS and the Supplement overstate the visual impact of the Project. This is particularly true with respect to Alternative 7 as it affects the WMNF given that Alternative 7 entails placing virtually the entire portion of the line that passes through the WMNF underground. This all but eliminates any meaningful visual impact in the Forest. As the DEIS and Supplement recognize, Alternative 7 is "consistent with all [Scenery Integrity Objectives] because it would be buried within the WMNF," significantly decreasing the Project's impact in the WMNF and near the AT. *See* DEIS at 4-370; s*ee also* Supplement, Table 2, at 5.

Land Use Impacts. Impacts on land use under Alternative 7 would be "similar to or less than" the impacts of the other Alternatives. Supplement at 11. Northern Pass agrees with the DEIS that, in the WMNF, there would be no long-term impacts on land use because Alternative 7 "would traverse the WMNF within roadway corridors" and "these areas would be restored to their pre-construction condition and would continue their existing use as roadway corridors." DEIS at 4-402 (discussing the same route under Alternative 4b through the WMNF); *see also* Supplement at 11. Alternative 7 also eliminates the need to construct a helicopter landing pad in the WMNF to facilitate construction and maintenance of the Project.[6] The projected number of acres subject to land use conversion under Alternative 7 is identical to that projected under five (5) of the other Alternatives. Supplement, Table 9. Further, Alternative 7 is consistent with the Management Standards for the WMNF. Supplement, Table 9, at 11. Northern Pass likewise agrees with the conclusion of the DEIS that Alternative 7 would have no impacts on conservation lands or protected rivers. DEIS at 4-402 (discussing the same route under Alternative 4b through the WMNF).

Recreation impact reductions. Recreational impacts under Alternative 7 would be "similar to or less than" the impacts of the other Alternatives. Supplement at 7. Alternative 7 includes a greater length of underground cable, resulting in a reduced above-ground effect on recreational sites and activities. Overall, other proposed Alternatives – including Alternatives 3, 5a, 5b and 5c – would have significantly greater impacts across-the-board, including increased potential for short-term construction impacts and long-term visual impacts from an increased number of above-ground structures. Supplement, Tables 5 and 6, at 8. Again, because the

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[5] As Northern Pass has explained on numerous occasions, an all-underground option is not financially feasible.

[6] *Compare, e.g.*, DEIS at 2-14, 4-2, 4-91, 4-219, 4-226.

Project will be underground in public roadways through the WMNF, there will be no meaningful impact on recreation, other than a potential short-term impact during construction.

AT impact reductions. Alternative 7's impact on the AT would be "similar to or less than" the impacts of the other Alternatives. Supplement at 7. Alternative 7's minimally invasive underground cable would only impact small portions of the AT, and even those areas of limited disturbance would be appropriately co-located within already-impacted areas. *See* DEIS at 4-383, F-29 (requiring new utility lines to be "co-located" with areas already impacted by roads and utility lines). The construction impacts on the AT from Alternative 7 would be short-term and identical to the impacts of all other Alternatives. Supplement, Table 5, at 8.

Other environmental considerations/reduced impacts. Other environmental impacts under Alternative 7 are likewise similar to or less than those under several of the other Alternatives. For example, Alternative 7's increased use of underground cables reduces impacts on wildlife and vegetation when compared to other alternatives. Supplement at 16–17. Additionally, out of all the alternatives, Alternative 7's underground lines provide the least amount of impairment to river crossings and vernal pools. Supplement, Table 19, at 21. Further, the underground cable would produce no corona noise. Supplement at 12. Importantly, Alternative 7 also provides CO_2 reductions related to operations that identical to all but two of the other action Alternatives (both of which are overhead alternatives and would cause more impacts to recreation, visual aesthetics, and the AT than Alternative 7), while simultaneously imposing significantly less construction emissions of NOx, CO, and CO_2 than other alternatives. Supplement, Table 14, at 15. Overall, the underground portions of Alternative 7 "would impose the fewest environmental impacts due to the lack of visual impacts and use of previously-disturbed roadways." Supplement at 23.

In short, Northern Pass agrees with and supports the conclusion in the Supplement that "[t]he portions of Alternative 7 that would be constructed underground along existing roadways [within the WMNF] would impose the fewest environmental impacts due to the lack of visual impacts and use of previously-disturbed roadway corridors." Supplement at 23.

C. Alternatives Involving Construction Along I-93 Should Not Be Selected

Certain stakeholders have argued that, if the Project is approved, DOE and the Forest Service should select Alternative 4a, 5a, or 6a, each of which places the transmission line underground along existing route I-93 through the Franconia Notch (the "Franconia Notch Parkway"). This routing is not feasible, would impose higher impacts, and should not be selected.

As Northern Pass explained in detail in a previously submitted Comment, the Franconia Notch Parkway alternatives suffer from multiple significant flaws:

- The Franconia Notch Parkway is governed by a 1977 Consent Decree that expressly prohibits "additional major construction" through the Parkway, without approval of the many signatories to the Consent Decree.[7] Northern Pass is confident that such approval could not be obtained for underground placement of transmission. Thus, selection of this alternative would result in an inability to construct the Project.

- Construction along the Franconia Notch Parkway would have significant impacts on roadside vegetation, scenic pull offs, parking areas, traffic, wetlands, scenic qualities and overall aesthetics of the Notch, which is a profoundly sensitive cultural and environmental area. Northern Pass does not support imposing such impacts. And, even if directional drilling were employed, as some have proposed, it is estimated that 20 to 30 jacking and receiving stations along the Franconia Notch Parkway would be required to accommodate the construction. Construction of these stations alone would have major impacts on the Franconia Notch area.

- The New Hampshire Department of Transportation ("NHDOT") prohibits construction of utilities within I-93 absent a showing of "extreme hardship," which includes demonstrating that no other alternatives exist. Alternative 7 plainly establishes that there is an alternative to I-93.

- NHDOT standards would require installation of any transmission line to occur outside the roadway near the edge of the right of way, causing additional environmental impacts. The impact on wetlands, trees, vegetation and scenic aesthetics from construction of any transmission line would be unacceptably large, requiring permanent road access sufficient for necessary maintenance.

For all these reasons, alternatives involving the use of I-93 are substantially inferior to the proposed action, Alternative 7.

[7] Previously, even the placement of guard rails essential to public safety was deemed "additional major construction," the approval of which was difficult to obtain.