November 5th, 2013

INTRODUCTION

The Appalachian Mountain Club (AMC) submits the following comments on the scope of the U.S. Department of Energy (“DOE”) Environmental Impact Statement (“EIS”) in connection with the application of Northern Pass Transmission, LLC (“NPT, Applicant”) for a Presidential Permit (the “Application”) to construct and operate an electric transmission line that crosses the United States-Canada border. The AMC is an intervenor in the above-referenced docket. These comments expand on and incorporate by reference (i) AMC’s Motion to Intervene in Opposition to the Application as Submitted and Comments by the Appalachian Mountain Club, dated December 15, 2010, (ii) the comments of AMC research director, Dr. Kenneth D. Kimball, at the public scoping meeting in Lincoln, New Hampshire on March 16, 2011 and AMC’s vice-president for conservation, Susan Arnold, in Plymouth, NH on September 24, 2013 October 1, and (iii) joint filings with the Conservation Law Foundation et al on April 28, 2011, March 31, 2011, October 6, 2012, September 17, 2013, and October 30, 2013. AMC offers these comments without prejudice to any and all legal rights AMC may have, which are hereby expressly reserved. It is understood that elements of our earlier filings in some cases are now outdated due to changes in the revised Application filings by the Applicant. Furthermore we take note that even though AMC filed with DOE for “consulting party” status in the Section 106 process (April 8, 2013, Susan Arnold of AMC letter to Brian Mills of DOE) no substantive response from DOE to that request has occurred as of this filing.

AMC’s standing in this case is described in our motion of Dec. 15, 2010 to intervene and is not repeated here. AMC recognizes that the increased use of environmentally sound renewable energy resources is a positive development, and appropriately uses these technologies at our facilities along with state of the art energy conservation technologies. AMC has a long history of research and advocacy in the arena of air quality and climate change impacts on mountain ecosystems, and fully recognizes the many adverse impacts that our society’s continued heavy reliance on fossil fuels can have on the areas we care about. AMC also understands that no energy project or source is entirely environmentally benign; some may release considerably less air pollution and greenhouse gases than others but still have very significant negative environmental impacts. AMC’s position is that the construction of so-called “low carbon or renewable energy facilities” must be undertaken with a full understanding of all of the potential consequences, and that adverse impacts associated with these facilities should be avoided or mitigated to the maximum degree possible. To that end of determining the appropriate environmental protection and mitigation, AMC is a founding and current board member of the independent national Low Impact Hydroelectric Institute (LIHI) that certifies environmentally appropriate and mitigated for hydroelectric
projects in the United States. Unfortunately, much of the power from Hydro-Quebec electric facilities is generated using interbasin water transfer, and these facilities are governed by environmental standards that are considerably less stringent than those required today for hydroelectric facilities sited in the United States.

AMC provides the following procedural as well as Scoping Document Comments.

I. **Procedural Fairness and Impartiality**

AMC’s and the public’s confidence in the EIS continues to be undermined by DOE’s current process for preparing the EIS, making data available and administering the permitting process as a whole, which to date continues to be neither transparent or fair to all stakeholders. The Applicant continues to have extraordinary and unfair influence over the work of the EIS contractor team, the availability and type of data collected, public access to the data collected, and the content of the EIS; many aspects of these processes have taken place with little or no public awareness or scrutiny. The Application and its revision has been purposefully void of much of the supporting data collected to date.

The issue is further confounded because DOE’s announced schedule for the remainder of the EIS process lists the distinct possibility that the timeframe between the issuance of the DEIS and the FEIS for the public to digest and then comment might be as little as 45 days. This would be an incredibly short amount of time for the public to digest the relevant data since the logic informing what, why, and how the data was collected, and the results drawn from the data remain opaque. As an example, the revised Application of July 1, 2013 does not even contain pdf map images and tower type and height tables, rather, they are provided in a non-digital and non-GIS useful format on Northern Pass’s web site. It took AMC almost 5 weeks just to geo-reference and digitize this data into an accurate GIS format and then several weeks to run the GIS visual footprint models necessary to understand the visual footprint of the full project corridor (see AMC’s videos that covers the full 187 mile corridor at [http://www.outdoors.org/conservation/wherewework/wmnf/northern-pass-project.cfm](http://www.outdoors.org/conservation/wherewework/wmnf/northern-pass-project.cfm)). Yet this type of analysis should have been part of the original Application, with AMC reviewing it, rather than AMC doing the work on behalf of the greater public (to say nothing of the Applicant then falsely claiming AMC’s analysis is flawed and instead blitzing NH for weeks with a misleading media campaign with ads that fail to show a single tower).

In a fair, transparent and more typical federal EIS processes, all available data, reasonable analysis, and results would have been required by DOE and contained within the Application for public inspection prior to EIS scoping. The openness and fairness issue became even more apparent when DOE not only accepted an application mostly void of data, but then hired the Applicant’s consultant to be DOE’s own consultant to conduct the EIS, a decision which stood until public and Congressional outcry overrode this blatant conflict of interest.

DOE set forth in its ‘interpretative guidance document’ of June 2, 2011, which is intended to clarify DOE’s interpretation of 10 C.F.R. § 205.322, the expected contents of an application for a Presidential permit issued by DOE under Executive Order (E.O.) 10485, as amended by E.O. 12038. Section 205.322 requires that an application for a Presidential permit provide, among other things:

c) “Information regarding the environmental impacts . . . for each routing alternative” *(e.g., a statement of environmental impacts of the proposed facilities, a list of known Historic Places,)*

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1 The Applicant originally proposed to have its own environmental consultant, Normandeau Associates, conduct DOE’s EIS and DOE had accepted this format. The obvious potential for bias generated significant protest from the public and NH Congressional delegation such that this consultant was withdrawn as DOE’s chosen consultant.
details regarding the minimum right-of-way width for the transmission line and the rationale for its selection, and a list of local threatened or endangered wildlife or plant life;)

d) “A brief description of all practical alternatives to the proposed facility and a discussion of the general environmental impacts of each alternative.” ….

“In addition, if the application does not include the technical studies described in § 205.322(b)(iii) at the time of filing, the applicant must supplement its application to include such studies when reasonably possible. Likewise, DOE requires an applicant to supplement its application, as soon as reasonably possible, with any additional information necessary for DOE to decide whether or not to issue a Presidential permit. Furthermore, all information contained in the application – or subsequently added to it – will be made publicly available.” (emphasis added)

“Sections 205.322(c) and (d) require an applicant to submit information regarding environmental impacts for alternative routes and descriptions of practical alternatives sufficient to enable DOE to understand the applicant’s proposal and to commence an informed NEPA review. Information about environmental impacts described in § 205.322(c) facilitates DOE’s NEPA review and assists DOE in determining if an EIS is needed.”

It is common knowledge that the Applicant has collected considerable environmental and technical data on its ‘preferred alternative’ prior to its Application submission on October 14, 2010 and revised Application of July 1, 2013. In conflict with the above stated policies, DOE, DOE’s consultant, and the Applicant, have made but minimal amounts of that data collected to date publicly available. Such availability would help to create an informed and transparent Application and subsequent EIS process.

A DEIS released with insufficient time for the public to have access to and the opportunity to reasonably analyze the data (not just summary tables) fails to meet standard NEPA practices and CEQ guidelines. To remedy these failures to date in this process, and as requested before by AMC and numerous other parties, DOE needs to make this EIS process more open and equitable by:

- Releasing and accepting public comment on a pre-draft EIS report describing the content of the EIS, including the alternatives selected for detailed study.
- Prior to release of a pre-EIS, establish a more robust and accessible online repository for EIS-related data, studies, and analyses that have been provided to DOE by the applicant and other parties or have been prepared by DOE or its contractor team and provide reasonable and ample time for public review.
- Discontinue the applicant’s ability to participate in private status meetings regarding the EIS and to review and comment on information prepared for the EIS before the public is afforded the same opportunity.
- Convene a collaborative stakeholder committee, with regular open meetings and published minutes, to review DOE’s and the EIS contractor team’s progress and provide informal guidance regarding the EIS.

II. Purpose and Need

DOE, in its notice of intent to prepare an EIS and conduct a scoping process, describes the purpose and need (and alternatives) for the project as follows:
Agency Purpose and Need and Alternatives: The purpose and need for DOE’s action is to decide whether to grant Northern Pass the subject Presidential permit. Under the Action alternative, DOE would grant the Northern Pass application for a Presidential Permit for the proposed international electric transmission line. Under the No Action alternative, DOE would deny the Northern Pass application for a Presidential Permit for the proposed international electric transmission line. (At Notice of Intent to Prepare an Environmental Impact Statement and Conduct Public Scoping Meetings, and Notice of Floodplains and Wetlands Involvement; Northern Pass Transmission, LLC, 76 Fed. Reg. 7,828 (Feb. 11, 2011).

As appropriately noted by CLF in its filing of April 12, 2011, the above statement violates NEPA’s mandate that “an agency cannot define its objectives in unreasonably narrow terms. A purpose and need statement cannot lawfully be premised on the narrow objective of determining whether or not to grant a permit for a particular proposal. Obviously, if the purpose and need is defined too broadly, the number of alternatives requiring analysis would be virtually limitless. Conversely it is inappropriate to define purpose and need so narrowly that only a single alternative could be identified for realistic and fair analysis (a condition that currently exists in this Application)." As recognized in DOE’s Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements, (Second Ed., Dec. 2004 at page 5), “The proposed action is generally only one means of meeting the agency’s underlying purpose and need for action.”

The Applicant’s proposed importation of 1,200 megawatts (“MW”) of Hydro-Québec-generated electricity is known to be part of a long-term, large-scale strategic plan developed by Hydro-Québec and the Province of Québec to expand hydro-electric generation and increase exports to the United States. This plan is a business strategy; it does not touch on the question before DOE of whether, and how much, importation of Canadian power is in the best interests of the United States generally, and New England and other Northeastern states in particular. Because projects of this scale would invariably impact the energy future of the region, it is essential that it not be viewed in isolation. Moreover DOE is concurrently considering the Presidential Permit application of another international transmission project in the region—the Champlain Hudson Power Express (“CHPE”), which will import from Canada 1,000 MW of

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2 The Province of Québec’s ten-year energy strategy (2006-2015) calls for increasing generation capacity through new hydroelectric and other projects totaling 4,500 MW and, with this increased capacity, stepping up exports of power to neighboring areas, including New England and New York. See Québec Energy Strategy (2006-2015), English summary at 9-10, available at http://www.mnrf.gouv.qc.ca/english/publications/energy/strategy/energy-strategy-2006-2015-summary.pdf ("The 4,500 MW added capacity will be sufficient to meet Québec’s long-term demand, promote wealth-creating industrial development, and support exports. . . . The Government also intends to ensure that Québec is able to increase its electricity exports, once its own needs have been met. It has mandated Hydro-Québec to begin discussions with potential partners in view of signing electricity export agreements."). Québec has also announced an economic development plan for its northern territory through 2035—"Plan Nord"—that emphasizes new generation projects totaling an additional 3,500 MW, including 3,000 MW of hydroelectric capacity, to support Québec’s energy strategy. See, e.g., Plan Nord Working Document (Nov. 2009), available at http://www.planord.gouv.qc.ca/english/documents/plan-nord.pdf. Similarly, a major objective of Hydro-Québec’s strategic plan (2009-2013) is increased generation capacity to step up exports to New York and New England. See Hydro-Québec Strategic Plan (2009-2013) at 19-27, available at http://www.hydroquebec.com/publications/en/strategic_plan/pdf/plan-strategique-2009-2013.pdf ("As a result of recent and ongoing hydroelectric development projects, Hydro-Québec Production expects to have the generating capacity needed to ensure export growth. By 2013, we will have nearly 24 TWh at our disposal. This margin of flexibility will enable us to increase the volume of our exports."). id. at 42 ("We will continue our initiatives to increase interconnection capacity with the U.S. Northeast and neighboring Canadian provinces. Furthermore, subject to confirmation of requests for transmission services, we plan to build a 1,200-MW interconnection with New England by 2014. . . . We also plan to upgrade the New York interconnection (Châteauguay substation). With import and export capability, this interconnection plays a major role in energy exchanges between Québec and the United States. We will coordinate the work with the U.S. operators to reduce impacts on service. We are considering other projects to ensure long-term operability and are keeping up our efforts to maintain or increase the exploitable capacity of all our interconnection facilities."). Hydro-Québec also envisions using increased interconnections with the Ontario grid to extend the reach of its exports to western New York and the U.S. Midwest. See id. at 26.
electric power into the New York grid via underground and submerged High Voltage Direct Current ("HVDC") transmission lines, and DOE may soon be reviewing yet a third such 1,000 MW project that was announced in October 2013 to serve the New England market, the so called New England Clean Power Link\(^3\). DOE is well aware of the magnitude of these events, having been in discussion with Canadian officials in a "U.S. – Canada Clean Energy Dialogue" since 2009. In April 2010, Maine enacted legislation intended to promote new transmission infrastructure along designated highway and other corridors, which could be used to increase Maine’s capacity for imports from New Brunswick. [See 2010 Me. Laws ch. 655 (L.D. 1786)]. In 2010 Vermont agreed to a long-term power purchase agreement with Hydro-Québec that allows Vermont to purchase up to 225 megawatts of power, predominantly hydroelectricity, starting in November 2012 and ending in 2038.

Considering this project in isolation and without the context of potential future projects that are more than theoretical would be contrary to the appropriate ‘purpose and need’ analysis for an EIS. In that case, DOE would be by default abdicating to Quebec’s well-laid plans with minimal consideration of other alternatives. AMC continues to urge that DOE stay this proceeding and instead initiate a broad, comprehensive, and programmatic EIS to study the extent of need in the Northeast for Canadian hydropower, taking into account the nation’s and region’s energy policies and goals, the most efficient, least impacting means of importing Canadian power to meet any such need, the impact on US-based renewable energy resources, and how such projects could further increase the US trade deficit. Such a programmatic EIS would effectively establish a master plan for the region’s importation of Canadian power, including whether and how that power fits into the region’s broader energy needs and policies. Such a plan would also ensure we avoid potential duplication of major transmission lines that would unnecessarily impact the Northeast. Project-specific Presidential Permit determinations should follow, not precede, the creation of such a region-wide, comprehensive energy plan. Without such a plan it is nearly, if not entirely, impossible to assess the cumulative impacts of separate project proposals given the complexity involved in each. A programmatic approach is supported by CEQ’s National Environmental Policy Act Regulations\(^4\).

The EIS must adopt a broader statement of the “purpose and need” for federal action beyond the Department of Energy’s (DOE) descriptions to date, which focuses solely on DOE’s action on the Presidential Permit application and the applicant’s self-servingly narrow approach, which in this case is inappropriately limited to a specific energy resource and Northern Pass’s single proposed transmission corridor through 187 miles of New Hampshire to its terminus in Deerfield, NH. Furthermore, the Applicant claims their Project will provide new energy resources to the New England market as a rationale for the permit so it is more than appropriate that a broader approach be taken to determine if that claim is indeed justified and if this is the most appropriate course of action to achieve that objective. A broader scope would more appropriately enable an analysis of the full range of reasonable alternatives, including non-transmission and non-import energy alternatives, and alternative routes in New Hampshire and other states.

A purpose and need statement must be defined by the nature of a proposed project and its associated impacts and be framed in such a way as to allow for a reasonable range of alternatives to be identified and analyzed. The Applicant’s stated purpose of the proposed Project is to import into New

\(^3\) http://www.necplink.com/

\(^4\) Forty Most Asked Questions Concerning, 46 Fed. Reg. 18,026, 18,033 (Mar. 23, 1981) (“Forty Questions”) (“The preparation of an area-wide or overview EIS may be particularly useful when similar actions, viewed with other reasonably foreseeable or proposed agency actions, share common timing or geography. For example, when a variety of energy projects may be located in a single watershed... the overview or area-wide EIS would serve as a valuable and necessary analysis of the affected environment and the potential cumulative impacts of the reasonably foreseeable actions under that program or within that geographical area.”)
Hampshire and New England 1,200 MW of energy generated in Canada by Hydro-Québec. The need for the Project, as characterized by the Applicant, is to meet needs in New England for clean, competitively priced power that will reduce greenhouse gas emissions and reduce price volatility, with an emphasis on the region’s need for clean, low-carbon power. DOE should broaden its purpose and need statement, and frame its description of purpose and need in terms of the purpose the Project seeks to serve, and the need in New England the Project seeks to fulfill, while considering the nature and impacts of the project, thus enabling an analysis of a full range of reasonable alternatives. Specifically, DOE should adopt a purpose and need framework for the EIS based on the purpose of importing energy into New England from Hydro-Québec, an assessment of whether and to what extent the New England region has a need for Hydro-Québec imports to advance the goals of a clean, low-carbon energy future for the region, whether and how the proposed Project and alternatives can fulfill any such need, and a full assessment of the environmental impacts.

III. The EIS Must Include a Thorough Analysis and Comparison of All Reasonable Alternatives and Their Impacts.

The amended Application contains but a single alternative, since the project as currently configured has no other options. This is a false choice, as the Applicant has several business components, and the dominant funding entity, Hydro Quebec, has available other options. A complete Application and EIS requires a detailed description and discussion of all reasonable alternatives to the applicant’s preferred proposal, including fully underground transmission alternatives that would be located in transportation or other existing corridors other than the applicant’s preferred route, including but not limited to alternatives in New Hampshire and other states, as well as non-transmission alternatives to the project and the “no-build” alternative. Contrary to the Applicant’s claims in its amended application, other reasonable alternatives exist and therefore must be studied and analyzed in-depth in the EIS prior to being rejected. These alternatives are likely to have major environmental and societal advantages over the applicant’s preferred proposal. Potential alternative geographic routes that may have less adverse impact, such as routes along the rights-of-way of public highways (e.g. I-91 in Vermont that more directly traverses from the vicinity of the proposed border crossing of this Project directly to the vicinity of the intended market in Connecticut), burial along the rights-of-way of railroads, and/or “doubling up” or increasing the line capacity with other existing, proposed, or under consideration transmission projects. These other alternatives including burial may have more direct, lesser impact routes in the region

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5 The purpose statement must not include specific project parameters proposed by the Applicant, such as the volume of electricity proposed to be imported; the entry- and end-points of the proposed transmission line; and the proposed transmission route and design. See DOE NEPA Guidance, supra, at 5 (“Do not include requirements (e.g., conceptual design specifications) in the statement of purpose and need that unreasonably narrow or bias the range of reasonable alternatives.”).

6 DOE’s analysis of alternatives to the proposal is “the heart of the environmental impact statement,” and “should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public.” 40 C.F.R. § 1502.14. Council on Environmental Quality (“CEQ”) regulations make clear DOE must “rigorously explore and objectively evaluate all reasonable alternatives. . . devot[ing] substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.” 40 C.F.R. §§ 1502.14(a)-(b). DOE must consider the “no action” alternative and all reasonable alternatives, including those that are not within DOE’s or the applicant’s capabilities. See 40 C.F.R. § 1502.14(c)-(d); Forty Questions, supra (“In determining the scope of alternatives to be considered, the emphasis is on what is ‘reasonable’ rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant” DOE’s alternatives analysis must also include any “appropriate mitigation” that has not yet been proposed. See 40 C.F.R. § 1502.14(f).

7 Use of buried transmission cables is an established technology and would be less disruptive to the land and environment since it would only require about a 40 ft. right-of-way, compared to the 150 to 410 ft. right-of-way required by the project’s proposed overhead lines. Underground power transmission can be more reliable than overhead power transmission and less susceptible to
compared to overhead lines. It is well documented that recent improvements in cable insulation technology have made reliable long distance HVDC power transmission through underground and underwater\textsuperscript{8} cables quite feasible when preceded by proper corridor selection.

Furthermore, reasonable alternatives to meet the so called energy need described by the Applicant for “low carbon alternative sources of energy” should include energy conservation, demand side management, and distributed energy generation. Such methods are by far the most “low carbon” and least impact conceivable. It is highly likely that a billion plus dollar investment in energy conservation, demand side management, and distributed energy generation in the Northeast would exceed all the benefits proposed in this Application, and avoid all the negative environmental impacts. Distributed energy generation in New England is expected to triple by 2021\textsuperscript{9}.

Finally, the following suggestions on alternative routes, sites, etc. applicable to this particular Application and ongoing EIS process should not be construed to imply that they are a sufficient substitute for the proposed Programmatic and Comprehensive EIS discussed in earlier sections of this filing.

\textbf{A. Alternative Routes and Sites}

Since the Applicant has purposefully failed to appropriately analyze alternatives, and instead has attempted to simply debunk them, DOE must now independently conduct that task with the goal of identifying the route and options with the least environmental, cultural, and socio-economic impacts. It is unfair, unreasonable, and financially unrealistic to ask either interveners, such as the AMC, or the general public, to undertake this task on behalf of the Applicant beyond a broad conceptual and generic approach such as we describe in our introductory paragraph to this section and following. AMC does emphasize that the Alternatives to be scoped in the EIS should avoid visually prominent locations seen from many other locations; historic and culturally significant sites; wetlands; protected conservation lands under federal, state, local, or private ownership (e.g. the Appalachian National Scenic Trail; Silvio O. Conte National Fish and Wildlife Refuge, White Mountain National Forest, Cape Horn State Park).

That the applicant, NPT, has not provided sufficient alternatives and has indicated that some alternatives are economically impractical, should not be the determinant of what alternatives are considered during the EIS process. Should NPT’s proposal be rejected, it is very reasonable to expect that Hydro-Quebec will find other partners that would better adjust to alternatives than NPT might be able or

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\textsuperscript{8} Though a Connecticut River underwater alternative may in itself not be appropriate, this does not preclude other underground options. The recently announced (October 2013) New England Clean Power Link only substantiates that fact.

\textsuperscript{9} Synapse Energy Economics, Inc. 2013. Forecasting Distributed Generation Resources in New England: Distributed Generation Must Be Properly Accounted for in Regional System Planning (\texttt{http://www.synapse-energy.com/Downloads/SynapseReport.2013-06.E4-Group.DG-in-New-England.11-052.pdf}). Though for the purposes of transmission planning ISO currently forecasts zero MW of new distributed generation (DG) will be installed by 2021 in New England and ISO does not account for any DG resources in its base case analysis of system needs and has resisted requests to do so, several states have already installed more DG (primarily solar) than the ISO estimates will be installed by 2021, and the remaining states are planning to install significantly more DG than the ISO is predicting by 2021. Synapse estimates the potential for as much as 2.855 MW of installed capacity from new DG resources. This is twofold the amount of power proposed by Northern Pass with minimal environmental impact and no trade deficit.
willing to. With these principles in mind, DOE must rigorously explore and objectively evaluate other routes and configurations, including, at a minimum:

(1) **Use of Existing Lines, Towers, and/or Rights of Way.** The towers and rights of way for the existing HVDC and AC transmission lines between Des Cantons in Québec and Sandy Pond in Ayer, Massachusetts ("Phase I/II") provide obvious alternatives to the proposed Project, including a new line and set of towers within the rights of way, use of the existing towers for new lines, and increasing the capacity of the existing Phase I/II lines. Such an approach would have clear environmental advantages over the development of an additional transmission line requiring many new miles of wholly new right of way, as increasing the capacity of the existing lines would clearly have the fewest impacts. This analysis should consider a more limited MW transmission upgrade to stay within maximum transmission line constraints, if the full 1200 MW is not practical, and not be limited to reviewing a full 1200 MW upgrade or nothing.

Ironically, on page 61 of its revised 2013 Application, Northern Pass claims any such expansion would be prohibited because “Creating this parallel path would require disturbance of conserved and undeveloped land and create such a wide ROW that it would result in potentially significant habitat fragmentation.” Yet Northern Pass would need to do same to achieve its full corridor as proposed, including building 32 miles of an entirely new and habitat-fragmenting ROW, while concurrently impacting further the White Mountain National Forest, Pondicherry National Wildlife Refuge, and other highly valued conserved lands. This example underscores why DOE needs to conduct a much more thorough and independent analysis and not simply accept the contradictory falsehoods presented by the Applicant.

(2) **New England Clean Power Link.** DOE must evaluate the recently announced New England Clean Power Link as a means to transmit 1,000MW into the New England grid. This analysis, which must not be dismissed or constrained by NPT’s desire to use PSNH lines and ROWs, a converter station in Franklin, and an end-point in Deerfield, highlights the value and efficiency that would result from engaging in the comprehensive, regional analysis discussed previously, and then determining the best, most effective means of importing Canadian power, if needed, into the Northeast.

(3) **Use of Other Disturbed Rights of Way – Railroads and Highways.** A detailed study must be conducted of the use of railroad rights of ways for underground cables, including the many active, inactive, or abandoned railroad rights of way in New Hampshire, and in other New England states, for all or a portion of the project route. This approach has been used in other parts of the world, is part of the current CHPE proposal before DOE, and likely would have fewer environmental impacts than clearing new rights of way through undisturbed lands. In the EIS, DOE should inventory such rights of way and provide potential routes for the project utilizing those rights of way (in whole or in part), including but not limited to routes that would replace all or most of the Applicant’s preferred or alternative routes that require new rights of way and/or traverse environmentally sensitive and recreationally significant areas. The Applicant’s assertion at page 70 in its revised Application that “It is possible that the State might be willing to share its ROW. However, the use of the approximate 13 miles of active track on the privately-owned section of the rail bed is uncertain at best, as a railroad operator of an active track can be expected to have legitimate concerns about any activity that could affect the stability of the rail system” is disingenuous and self-serving at best, and without any evidence of NPT having engaged in a serious dialogue with these ROW owners. As noted above the CHPE project is proposed for burial for considerably longer distances in a much more restrictive RR ROW corridor. It is obvious that the Applicant approached this alternative with a predetermined intent of disproving it and it is incumbent

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10 See, e.g., [New Hampshire Department of Transportation, Map of Railroads](http://www.nh.gov/dot/org/aerorailtransit/railandtransit/documents/RailRoad_by_Owner_State_2009.pdf)
upon DOE to reject this strategy and instead thoroughly explore this and other alternatives to the proposed route.

Other state or federal highways may also be suitable for siting transmission lines. Using these rights of way for the project (in whole or in part) with underground cables may involve use of median or shoulder areas that are readily accessible for construction and, as with the use of railroad rights of way, would avoid many of the environmental impacts associated with creating new rights of way.

The Applicant also claims, without evidence, that ROWs like railways are not practical (Revised Application at page 70) and not sufficiently wide, yet the CHPE project proposes to use such ROWs, including 128 miles of road and railroad ROW (http://www.chpexpress.com/route-maps.php). And CHPE proposes to do so at possibly less cost than NPT’s proposed project.

(4) Combination of Alternative Strategies. A combination of railroad and highway rights of way should also be fully reviewed, just as the proposed CHPE proposal uses a variety of approaches (underwater, railroad ROW, etc.). With respect to both railroad and highway rights of way, DOE should consult the report prepared by the U.S. Government Accountability Office and the studies summarized therein11.

In summary, the cursory analysis of possible alternatives reviewed and then debunked in less than 20 pages in the revised Application cannot form the basis of a reasonable examination of alternatives. Northern Pass’s problem is that it has only one alternative which is based on its partial ownership of an existing and very constrained ROW. However, the major funder of Northern Pass, Hydro Quebec, has the opportunity to use other alternatives if the Northern Pass route is not successful.

B. Alternative Designs, Technologies, and Strategies

The reasonable range of alternatives to be analyzed in the EIS must include not only routing and siting alternatives for traditional overhead transmission lines, but also reasonable alternative designs, technologies, and non-transmission alternatives that will achieve the same goals. Although the Application fails to provide any information regarding such alternatives, DOE must seriously consider them, utilizing all of DOE’s analytical and research expertise on transmission and energy issues. We discuss several of these alternatives below. We note that DOE is uniquely qualified to perform a comprehensive and searching review of alternatives to the proposal, and should not limit its inquiry only to the alternatives presented by the public during the scoping process.

(1) Location, Size, and Configuration of Converter Station and Substations. Relocation of the converter station to another location (in any direction) would facilitate consideration of alternative transmission routes with potentially fewer environmental, cultural, and socio-economic impacts. The Applicant’s selection of Franklin as the location of its proposed DC-AC converter station cannot limit DOE’s evaluation of other potential sites. Similarly, there are alternatives to siting the project terminus in Deerfield. DOE should consider all other reasonable sites for final interconnection with the New England electric grid, including sites that may benefit the overall electric grid through the associated transmission upgrades and improvements or that may allow for alternative project routes with fewer impacts.

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11 See Transmission Lines: Issues Associated with High-Voltage Direct-Current Transmission Lines along Transportation Rights of Way, GAO-08-347R, (Feb. 1, 2008). That report discusses potential advantages and challenges associated with siting HVDC lines along transportation rights of way, including strategies to mitigate associated impacts and risks. For example, to minimize visual impacts, DOE should examine routing options that avoid disrupting scenic view sheds, including view sheds in which the rights of way to be utilized are currently difficult to see and view sheds that travelers currently see from the rights of way to be utilized. It also must consider the burial of transmission lines in existing transportation rights of way, as discussed infra.
(2) Underground Transmission Lines. A promising alternative to overhead transmission lines that requires detailed review and consideration in the EIS is locating the transmission lines underground. Understanding that the proposed Northern Pass corridor is likely topographically and geologically constrained and not appropriate for burial, burying the lines in another corridor would eliminate most of the permanent visual impacts associated with the project. The currently pending Champlain Hudson Power Express, Inc. (“CHP”) transmission line project to bring high voltage direct current from Canada to New York City and Connecticut via the Champlain and Hudson Valley region uses geographic routing and transmission line design to reduce adverse impacts. To reduce the unsightly overhead lines and other adverse impacts in the Champlain and Hudson Valley region, these underground lines would be located principally underwater or in existing and much narrower railroad rights of way (ROW) rather than carving new or greatly expanded ROWs as proposed by Northern Pass. CHPE maintains that this substantially less adverse routing and design approach is intended to take into account the damaging impacts of large-scale overhead lines to the Champlain and Hudson Valley region. Northern New Hampshire and the White Mountain National Forest are no less valuable than the Champlain and Hudson Valley region and warrant the same protection from damaging large-scale overhead transmission lines. There are numerous other examples of the burial of transmission lines of this type\(^\text{12}\), so the question is not one of technical feasibility as falsely claimed by the Applicant.

The Applicant has objected to the potential costs of underground transmission lines in various media statements and filings with DOE. The blanket assertion made by the Applicant that some of these alternatives are not cost effective is not substantiated nor necessarily supported by the financial structure of the Northern Pass proposal. In fact, these objections are irrelevant to DOE’s review, as it is DOE’s independent obligation to consider the technical challenges (including the means to overcome any such challenges), to evaluate the potential options (including, but not limited to, utilizing alternative routes and/or burying only a portion of the line where it would be visible in notable view sheds), and to compare the environmental impacts with other alternatives.

It is on the record that the transmission line as proposed is designed to be very profitable for its equity participants, rather than to minimize adverse impacts to public resources such as the Appalachian National Scenic Trail, White Mountain National Forest, or the scenic landscape of northern and central New Hampshire. Absent is the acknowledgement by the Applicant that scenic landscape features are fiscally important to New Hampshire’s tourist economy. It appears that adequate financial flexibility exists for the consideration, as part of the DOE process, of a substantial number of geographical routing\(^\text{12}\). Examples include:

- The Maine Express HVDC Project that is currently under consideration would transmit 1,000 MW of power from Wiscasset, ME to Boston, MA through a 150 mi. submarine cable buried 3 ft. below the Atlantic Ocean floor. This project’s in-service date is projected for 2014.
- The East West Ireland to Wales connector with 75 mile underground
  [link](http://www.abb.com/industries/ap/db0003db004333/a60fb5e59414e817c125774a002f365b.aspx)
- The DoIWin in Germany with 56 miles underground
  [link](http://www.abb.com/industries/ap/db0003db004333/a60fb5e59414e817c125774a002f365b.aspx)
- The 122 mile underground Murraylink in Australia
  [link](http://www.abb.com/industries/ap/db0003db004333/840b1dc566685f86c125774b003f8f37.aspx)
- The BorWin1 in Germany with 47 miles underground
  [link](http://www.abb.com/industries/ap/db0003db004333/a8e328849ac67b66c125774a002f365b.aspx)
- six 36 mile long links were built by TransÉnergie Australia, a subsidiary of the Canadian utility Hydro Quebec and Country Energy in Australia
  [link](http://www.abb.com/industries/ap/db0003db004333/2700978c26a07a70c125774b00410ebc.aspx)
- BorWin2 in Germany with 47 miles underground
and transmission line design alternatives that would greatly diminish the adverse impacts to these very important natural resources in New Hampshire, whose economic value to the state and its citizens is irreplaceable. Burying the lines could be appropriate for all or some of the project route, and DOE’s consideration of the various options for line burial should be undertaken in concert with its evaluation of the many potential routes for the project, e.g. locating underground lines in existing transmission and/or transportation rights of way would have fewer impacts and may prove more feasible than underground lines in new rights of way through presently undisturbed areas.

3) Other Transmission Design and Technology Alternatives. DOE should also investigate design and technology alternatives to the traditional overhead infrastructure NPT has proposed. DOE must evaluate potential alternatives to all aspects of the project design identified in the Application, including but not limited to the height and proximity of towers, the depth of tower foundations, the aesthetic characteristics of the towers and wires, and the use of monopole versus multi-pylon towers. As with line burial, alternatives to the proposed design should be considered across the entire project as well as in localized instances where severe impacts are evident from comments received during the scoping process or from DOE’s own review.

4) Non-Transmission Alternatives. The EIS must consider non-transmission alternatives to the project to meet regional air quality, greenhouse gas emission, and electric capacity needs. These include but are not limited to: (i) enhanced development and utilization of renewable energy generation resources, (ii) distributed energy generation, (iii) demand response programs, (iv) energy efficiency investments, and (v) more aggressive energy conservation initiatives. These alternatives should be considered separately and in combination, and should also be assessed as a means of reducing the capacity of the proposed project, which may facilitate, or improve the technical feasibility of, utilizing one or more alternative routes, configurations, and designs. Northeast Utilities and NSTAR, NPT parent companies, are sophisticated utilities operating throughout New England, and are well-positioned to make investments in infrastructure and services that will benefit non-transmission efforts. Non-transmission alternatives also have been a research focus of DOE and have substantial regional support through ISO-NE and state programs. These alternatives require detailed analysis and consideration in the EIS.

5) Combination of Alternative Strategies. A combination of alternative designs, technologies, and strategies should be fully reviewed. Because a strategy in whole may not be feasible, that in itself should not necessarily preclude it. A strategy not practical in whole, but done thoughtfully in combination with other strategies, may be entirely reasonable and feasible.

C. No Action

The EIS must determine whether the Project is in the “public interest.” During the scoping process, the public has insisted on a fair and objective analysis of the “no action” alternative. DOE should be entirely open to deciding in the EIS that the impacts of the proposed Project and other reasonable “action alternatives” are unacceptably significant and that the “no-action” alternative is the preferred alternative. NEPA itself requires DOE to perform a robust and impartial assessment of the environmental, cultural, and socio-economic implications of simply denying the Application.

Fair and reasonable consideration of the “no-action” alternative is especially important because the proposed Project is motivated principally by the economic benefits that will go to the Applicant and its sponsors. As proposed the Project likely would still require the taking of lands by power of eminent domain, again, primarily for substantive private gain. Such a taking is not guaranteed (by reference the November 5th, 2013 filing by the Society for the Protection of New Hampshire Forests). Furthermore, reasonable alternatives exist that could displace imported capacity. For example DOE and Oak Ridge National Laboratory recently released a study showing as much as 12.6 gigawatts of hydropower.
generation could be added by installing new equipment at the fleet of existing U.S. hydropower
diaries. Many state RPS portfolio criteria and the Low Impact Hydroelectric Institute support such an
approach – using more efficiently what the nation already has in place for generation capacity as opposed
to adding to the negative impacts on the environment through new construction of generation and
transmission facilities. And distributed energy generation technology combined with falling prices has
transitioned to a viable alternative to the more vulnerable large centralized power source and long-
distance transport model of yesterday.

D. Rationales for Selection and Rejection of Alternatives to be Studied in the EIS

If DOE excludes certain alternatives from detailed consideration, DOE is obligated to
independently justify and document its decision with respect to each excluded alternative with expert
analysis and appropriate rationales using an independent assessment of costs, technical issues, and other
constraints. To do otherwise would undermine the importance of the NEPA process in protecting the
public interest.

IV. EIS Must Include a Rigorous Assessment of the Impacts of the Proposed Project

NEPA requires a comprehensive assessment of the environmental impacts of the proposed
Northern Pass project, and alternatives, including those discussed above. The EIS must also provide a
“full and fair discussion” of these impacts that will provide the “scientific and analytic basis” for
meaningful and technically sound comparisons of alternatives. (40 C.F.R. § 1502.16.), including
direct, indirect, and cumulative impacts, whether they be local, regional, or international. The following
comments are not intended as an exclusive or exhaustive list; DOE is obligated to consider all relevant
impacts raised by other parties or that may emerge during DOE’s independent study of the project.

A. Environmental Impacts of Generation and Transmission in Canada

The Applicant takes the position that the project will provide “clean, low carbon” electricity
generated in Canada for U.S. markets (Original Application at page 18, repeated in revised Application of
July 1, 2013). To make such a claim and to justify that the power is “clean, low carbon,” it is essential
that DOE also look across the international border and consider the source of this power, including
potential impacts of the power source on Quebec’s river ecosystems. If the Applicant is invoking the
benefits of this “clean, low carbon” power as a rationale for the proposed Project, it is only appropriate
that this claim for the Project also be subject to a comprehensive, fair, and balanced review that provides a
complete accounting of the environmental impacts of the Project across the border as a whole.
Alternatively, the EIS could not describe or make any claims about the attributes of the power source.
AMC believes the former is more appropriate.

The impacts of hydroelectric generation and transmission projects on the natural environment and
on cultural resources in Canada are dramatic in scale and a subject of tremendous controversy. The
impacts include but are not limited to:

13 Smith, U.S. Hydropower: Fleet and Resource Assessments, Presentation at National Hydropower Association Annual
Conference (Apr. 5, 2011).
• Damming of rivers, converting them from free flowing ecosystems to huge impoundments that flood thousands and thousands of acres of terrestrial habitat; 14
• Creating impoundments with extensive drawdown regimes and that can be subject to hypolimnetic oxygen depletion;
• Flooding of existing high-quality wetlands and the creation of low quality new wetlands due to markedly fluctuating reservoir water levels; loss or diminishment of riverine wetlands due to altered downstream river flows;
• Hugely altering downstream flow regimes that disadvantage or eliminate many instream and riparian aquatic organisms;
• Extensive blocking of connectivity for aquatic organisms;
• Accelerating the methylation of mercury and its bioaccumulation in the food chain;
• Extensive inter-basin water transfers;
• Disrupting and altering freshwater flows into the ocean that could impact sea ice conditions and seasonal salinity;
• Disrupting the functioning of river deltas where impacted rivers reach the ocean;
• Increasing major emissions of greenhouse gases from the reservoirs from inundated soils; 15
• Loss of terrestrial ecosystems at a landscape level scale from reservoir inundation;
• Disrupting and degrading terrestrial ecosystems due to the vast network of transmission lines; and required to transport electric power generated in far northern Québec to the United States border.

Although the generation facilities that will supply the power, and some of the transmission facilities that will connect those facilities to the United States, are in Canada, under NEPA the DOE must describe and consider in the EIS 16 for international transmission lines requiring Presidential Permits the environmental and other impacts in Canada itself. DOE’s statements to date that it intends to exclude impacts in Canada from its environmental review are erroneous as a matter of law and must be reconsidered and reversed to ensure compliance with NEPA.

Furthermore, it is clear from the published Hydro-Québec strategy documents 17 referenced previously that the present and future impacts of generation and transmission in Canada, including continued and increased utilization of existing facilities, and the development of new facilities, are “reasonably foreseeable” impacts of developing the Northern Pass project. Future impacts could include those in Canada from continued expansion of transmission and generation capacity, as well yet more

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14 For perspective, the reservoir flooding equivalent for the generation of 1200 MW based on HQ’s overall cumulative reservoir areal flooding and power output equates to flooding of over 280 square miles of mostly boreal forest land and soils, about 60% of the surface area of Lake Champlain, VT. This is a very significant impact.


16 NEPA regulations conclude and CEQ has determined that agencies must include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States.

17 See Hydro-Québec Strategic Plan (2009-2013), supra. “As a result of recent and ongoing hydroelectric development projects, Hydro-Québec Production expects to have the generating capacity needed to ensure export growth”); Québec Energy Strategy (2006-2015), supra (“The 4,500 MW added capacity will be sufficient to meet Quebec’s long-term demand, promote wealth-creating industrial development, and support exports. . . . The Government also intends to ensure that Quebec is able to increase its electricity exports, once its own needs have been met.”). See also NPT Transmission Service Agreement Filing, FERC Docket No. ER11-2377 (Dec. 15, 2010), at Attachment G, p. 28 (Charles River Associates, LMP and Congestion Impacts of Northern Pass Project) “In reality, the additional transmission capacity provided by the NPT Line could lead to additional development of resources to support exports from Québec, leading to higher total exports in the case with NPT in service.”
transmission lines within the United States. The EIS is obligated to consider these additional impacts in its cumulative temporal and spatial impact analyses.

B. Energy Resources

DOE must analyze the effects of the Project and all reasonable alternatives on the specific issues discussed below.

(1) Renewable Energy Resources in New Hampshire and the Northeastern United States. Major new imports of low-priced electric power from Canada will have profound effects on the development and maintenance of domestic energy resources, including new renewable sources such as solar, wind, efficient low-emitting biomass, small-scale hydroelectric facilities, and distributed generation. These impacts must be considered in the EIS. Federal and state public policies, including federal and state tax incentives and renewable portfolio requirements, promote support for and development of these resources. DOE must also take into account the potential for legislative changes that might qualify large-scale hydroelectric power for renewable portfolio incentives. This is not speculative since they have already been proposed in several states by the Applicant’s surrogates (e.g., House Bill 302 in New Hampshire, and Senate Bill 1 in Connecticut). The potential effects of such changes on the market for renewable energy credits and the financing of existing and proposed renewable projects in the region would be significant, since they are contrary to the spirit and purpose of current renewable portfolio requirements, which are intended to spur investment in new renewable resources, distributed generation, and the modernization of existing facilities within the region.

(2) Displacement of Fossil Fuel Generation There is no evidence to date that this Project will displace substantive amounts of older, less efficient fossil fuel electric generation in either NH or the region as a whole. DOE must present a factually-based analysis for any assessments and conclusions.

(3) Impacts on Demand Management, Demand Response, Energy Efficiency, Distributed Generation and Conservation. The EIS must evaluate the effects of the Project on existing and potential non-generation resources, including distributed generation, demand management, demand response, energy efficiency investments, and conservation efforts. It should address this issue in detail by examining how adding substantial new capacity into the New England electric grid may diminish the economic incentive for these non-generation and low impact generation resources to continue to grow. These approaches are the least environmentally impacting available, and discouraging them by flooding the market with additional power has serious ramifications. It must also examine the role of the rapidly expanding distributed generation.

C. Greenhouse Gas Emissions

As discussed in our earlier CLF, AMC et al Protest of April 28, 2011 (at p. 12), the EIS must assess the Project’s net effect on greenhouse gas emissions, including the direct emissions caused by generating facilities utilizing the Project and the indirect changes in emissions from other facilities and in energy usage in New England. Greenhouse gas emissions from the reservoirs used to generate the hydroelectric power to be transmitted by this Project are not insignificant. A detailed assessment is required under NEPA because electricity generation is one of the most significant sources of greenhouse gas emissions in the region, and the project has critically important implications for electric systems in New England and Canada, as outlined above. The Northern Pass’s hydroelectric power source has and will require further flooding of massive acreages of boreal forest soils. The resulting significant emission of bacterial decomposition derived methane, a potent greenhouse gas, is an impact that knows no national boundaries and must be assessed.
D. Environmental Impacts

(1) Visual Impacts. Visual resources are an extremely important resource for users of the White Mountain National Forest (WMNF), the Appalachian National Scenic Trail (ANST) and New Hampshire tourists. The visual impacts of the proposed Project are the antithesis of what the visiting public is coming to this region to see. The EIS should provide visual simulations from all significant scenic viewpoints of the Project’s proposed 150 - 410 ft. wide ROWs and structurally massive 80 to 155 ft. high towers and overhead power lines. The photo simulations should be taken at appropriate times and with clear weather. These impacted viewsheds should be assessed for the degree of impact following USFS visual impact analysis protocol. The overall visual footprint of the project in its entirety up to 10 miles from the project should also be determined.

(2) Cumulative and Visual Impact to the Appalachian National Scenic Trail (ANST): From the Mid-Atlantic region to its terminus in Baxter State Park, Maine, the AMC collaborates with the Appalachian Trail Conservancy and National Park Service to minimize the visual and audible impacts of wind farms, utility corridors, and other development, as well as the physical impacts of such development, on the ANST, in order to achieve “no net loss” to the qualities of the footpath, including its associated resources and the experiences of its visitors, be they thru hikers or just people out for a short excursion. With the numerous impacts now taking place along the length of the ANST, e.g. suburban encroachment, pipelines, power lines, highway improvements, wind-farm proposals, telecommunications towers, and many others—the ANST may be degraded beyond a point that is sustainable, resulting in the long-term diminution of the Appalachian Trail experience. Therefore a cumulative impact analysis of this Project must be considered and reviewed in the broader spatial context of all development impacting the ANST, to determine if there will be a net loss to trail, forest, or park resource values within a reasonable geographic area of the Northeast as well as where the Appalachian Trails traverses New Hampshire.

(3) Impact to the White Mountain National Forest. Because of its high recreational values, visual appeal, and accessibility to the 70 million people living within a day’s drive, the White Mountain National Forest is currently experiencing numerous growth challenges on its borders. This Project as proposed cuts right through the Forest and is in direct conflict with the purpose and intent motivating the creation of this Forest 100 years ago. It would traverse almost 11 miles of the White Mountain National Forest, adding over 138 new and relocated towers that would exceed 85 feet in height; the median height would be 92 feet and 31 towers would exceed 100 feet in height. For comparison, average tree height approximates 60 feet and the existing towers are in the 40-52 foot range. Finally, the proposed Project represents a very significant and long linear visual intrusion as it parallels I-93 and Route 3 into the Franconia Notch area from the south, the primary travel route for tourists coming to this part of the Forest. The proposed Project impact must not be examined in the singular, but also from a cumulative impact perspective.

It is critical that the EIS evaluate the project’s impacts on the White Mountain National Forest in the context of the requirements of the White Mountain National Forest Plan and the U.S. Forest Service’s review of the applicant’s Special Use Permit application(s). It is also paramount that all reasonable project alternatives be examined in the EIS. Private use of National Forest System land must not be authorized when such uses can be reasonably accommodated on other lands. Northern Pass’s proposed project does not respond to any verified regulatory requirement, identified need or request; rather, it is a private, for-profit project.

(4) Broader Impact to other protected open space and related private lands. As one of the largest infrastructure projects in recent New Hampshire history, the Project as proposed is likely to have major environmental, cultural, and socio-economic impacts on all communities along its route. The economic

18 WMNF Management Plan, Forest-wide management direction, S-1, p.2.9.
and social costs associated with the proposed transmission line to natural and recreational resources may outweigh any asserted public benefits from the Project as proposed. The proposed new 187 miles of OH-HVDC and OH-HVAC lines would require in excess of 32 miles of new right-of-way to be carved out of some of the most pristine, remote, and beautiful areas of northern New Hampshire. It would impact Cape Horn State Forest. It would impact the view shed from Weeks State Park in Lancaster, NH, the former summer home (which is listed in the National Register of Historic Places) of the prime sponsor of the Weeks Act, John Weeks. The new rights-of-way would host towers averaging well above tree height with high tension lines and related facilities. This corridor would scar the northern landscape and transform the region from many viewpoints, substantially and adversely affecting the region’s scenic resources, a cornerstone of the region’s economy. The impacts on these resources and the regional economy need to be assessed in detail in the EIS.

The EIS should assess the overall visual footprint of the project for the full length of the corridor. AMC has been revising its original visual footprint analysis (September 2012) using the best available data posted on Northern Pass’s web site for tower type, location, and height that became available in July 2013. AMC’s analysis appropriately geo-referenced the tower data and applies standard GIS visual analysis tools, including screening for topography and land cover type. Because the extensive distance of the corridor (~180 miles above ground) would render the depiction of the towers’ cumulative visual footprint on standard size paper problematic, AMC overlaid the likely visual footprint for the foreground (1/2 mile on each side of the corridor) in a Google Earth format and then converted it into a YouTube fly-through video for easier visualization by the public (http://www.outdoors.org/conservation/wherewework/wmnf/northern-pass-project.cfm). AMC’s analysis underestimates the visual impact as the visual reach for many towers would exceed this ½ mile buffer depicted in the video, and our forest screening tool assumes full leaf-on canopy year round, which for the most part is not the case, and filtered views through the deciduous forest component could exist for up to 6 months per year.

AMC’s preliminary and ongoing analyses suggest that as many as 27,000 acres in NH would have project tower visibility within the ½ mile foreground and an additional 87,500 acres in the mid-ground up to 4 miles, totaling over 100,000 acres in this visual range. Almost 2,000 acres of impact would be in the WMNF. This excludes the visual impacts of the proposed new 32 mile swath to be cut from Dummer to the Canadian border. The Applicant should have in its Application, but does not and so the EIS now must, the calculation and mapping of the project’s visual footprint for the full corridor. In addition the EIS should list and then visually assess the impact to all significant scenic view sheds for the full corridor following the USFS standard visual impact analysis protocol19.

(5) Recreational: The EIS should include a thorough analysis of the proposed project on backcountry recreation, including but not limited to disruption to the Appalachian National Scenic Trail (aka ANST and AT), a unit of the National Park system, and other hiking experiences, during both the construction phase as well as the projected life of the Project. In particular, the EIS must assess the negative effects the Project as proposed would have on the “AT experience” at the proposed crossing of the ANST in the Kinsman Range on the White Mountain National Forest. The existing transmission line at this location is already an intrusion on the backcountry visitors’ experience. The proposed increase in height and number of towers in the corridor at this location would further and demonstrably diminish the sense of primitiveness and remoteness that is the calling card of the Trail. This analysis should include impacts to users of the nearby Lonesome Lake Hut and the AT Kinsman Pond Shelter, both managed by AMC, because the backcountry user experience at these facilities includes enjoying nearby areas that the proposed Project will significantly transform.

(6) Ecological. All relevant impacts associated with the Project and its alternatives must be appropriately examined in the EIS with the underlying data bases made publicly available. This includes both construction activities and permanent infrastructure, and not limited to:

- Impacts to forest, wetland, and other wilderness areas, including fragmentation or disruption of wildlife habitat and other losses of ecological services;
- Impacts to endangered and threatened species of animals and plants, whether under federal or state protection, and
- Impacts to the ability of NH to meet the objectives of its State Wildlife Action Plan

V. Continued Request for Post-Scoping, Pre-Draft EIS Report

AMC reiterates its request in its original 2011 scoping comments that DOE prepare and issue for public comment a post-scoping, pre-draft-EIS report that describes the alternatives and categories of impacts that DOE intends to study in depth in the EIS. The report should also include DOE’s proposed definition of the purpose and need for agency action, as discussed in Part II, supra. In light of the importance of DOE’s decisions about the scope of the EIS, including DOE’s decisions with respect to the comments set forth above, such a report will help ensure that the EIS fully satisfies DOE’s legal obligations and addresses the extraordinary public input DOE has received during the scoping process.

AMC appreciates the opportunity to provide these comments on the proper scope of the EIS for the Northern Pass project. AMC reserves its rights to submit additional comments and information during any further public comment period.

Respectfully submitted,

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