

**The State of New Hampshire Site Evaluation Committee
Docket No. 2015-06**

**Joint Application of Northern Pass Transmission LLC ("NPT") and
Public Service Company of New Hampshire d/b/a Eversource Energy
("Eversource") for a Certificate of Site and Facility for the Construction
of a New High Voltage Electric Transmission Line and Related Facilities in
New Hampshire**

January 12, 2018

**Ashland to Deerfield Non-Abutting Property Owners Intervenor Group
Post-Hearing Brief**

**NOW COMES the Ashland to Deerfield Non-Abutting Property Owners
Intervenor Group (AD-NBTR Group) and respectfully submits this Post-
Hearing Brief.**

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I. Background

The Non-Abutting Property Owners: Ashland to Deerfield Intervenor Group submit this joint Post-Hearing Brief in opposition to the Application by Eversource Energy and Northern Pass Transmission LLC to site and construct the proposed transmission facility referred to as the Northern Pass Project.

The Intervenor whose properties are located in the towns of Holderness, New Hampton, Bridgewater, Canterbury, and Deerfield, but greater than 100 feet outside of the proposed Northern Pass Project (the Project), were given Intervenor status by the Site Evaluation Committee (SEC) in its Order on Petitions to Intervene issued on March 18, 2016. The basis for intervention was established by these property owners' assertion that the Project will be visible from their properties and will have an adverse effect on views from their properties, value of their properties, enjoyment of their lives, and their health and safety.

These property owner Intervenor were grouped together as Non-Abutting Property Owners: Ashland to Deerfield in that Order. We have appeared in this matter and given testimony to the Committee as such. (Pre-Filed Testimonies marked as AD-N-ABTR Exhibits 1, 16, 17, 27, 28, and 41; Transcript 12/14/17, Day 67 (afternoon), pp. 126-219).

The Non-Abutting Property Owners: Ashland to Deerfield Intervenor oppose the this Application by Eversource Energy and Northern Pass Transmission LLC for the reasons set forth in their testimony, statements,, exhibits, and various filings, all of which are incorporated by reference. This Brief will emphasize certain points of our opposition; however, we will be adopting and joining positions taken by other property owner intervenor groups, municipal groups, Counsel for the Public, PRLAC, the NGOs and SPNHF where their positions and arguments are applicable to our circumstances and our opposition

II. Applicants' Burden of Proof

The Applicant has not met its burden to present the facts necessary to conclude that the Project would not have an unreasonable adverse impact on New Hampshire resources and that the project as a whole would be in the public interest.

Site 301.14 (concerned with findings of unreasonable adverse impact on aesthetics, historic sites and other specific topic) directs that the Committee take into account various specific impacts in making its determination regarding unreasonable adverse impacts. Site 301.15 provides direction for the Committee's consideration with respect to undue interference with orderly development. Site 301.16 similarly indicates that in considering whether a proposed project serves the public interest, the Committee should consider the effect of the project using various criteria.

Nothing in these provisions suggests that these listed criteria are to be limited in any way by the descriptions of the material that is required to be included in the initial Application. Indeed, nothing in these provisions suggests that the criteria listed are the only matters that can be considered by the Committee in making its determinations about impacts and about the public interest.

Site 202.19 provides that the Applicant has the burden of proof with respect to the facts sufficient to allow the Committee to make these determinations. Nothing in Site 301 limits the facts that should be taken into account by the Committee, and with respect to which the Applicant has the burden of proof, to the facts that are required to be included in the Application. The filing of an adequate Application does not mean that the Committee has all of the facts necessary to meet its burden of proof.

Thus, the Committee could find that the Application itself met the minimum requirements of Site 301, but that the Applicant had failed to meet its burden of presenting sufficient facts to the Committee.

III. Failure to Identify Resources

The Applicant's experts used methodologies to identify impacts on scenic and historical resources that were clearly inadequate to provide the Committee with all of the information that might be relevant to its determinations.

A. The Applicant's experts' methodologies limited the extent to which facts for which the Applicant has the burden of proof were presented to the Committee.

In many instances, the experts of CFP and other interested parties were able to bring to the attention of the Committee resources that were overlooked using the Applicant's experts' methodologies. These may not, however, be the only resources that were overlooked. And even if they were not entirely overlooked, many of these resources were not given adequate analysis.

Neither the experts employed by the CFP nor the other interested parties are under an obligation to, or attempted to create, a complete inventory and analysis of the overlooked resources. The interested parties were all likely to have presented the Committee only with information about the resources that they were most familiar with and as examples of the types of information that was not provided. Only the Applicant is charged with presenting proof that the overall impact of the Project on New Hampshire and its resources will not be unreasonable and that granting the Application is in the public interest.

To the extent the Applicant's experts methodologies failed to identify resources and impacts, the Applicant has not met its burden. Even if the impact on any particular overlooked resource would not by itself render the Project's potential overall impact unreasonable, the cumulative effect of negative impacts on overlooked resources when added to the negative impacts on identified resources, render the overall impacts unreasonable. The more likely it is that small impacts were overlooked, the more likely it is that the Committee's overall conclusion should be that the Applicant has not met its burden.

B. The Applicant's repeated attempts to limit information about other resources that might have been identified under different methodologies casts doubt about the soundness of its experts' overall conclusions.

Among the methodological steps used by the Applicants' experts that resulted in overlooked resources are:

1. *The role of "bare ground" analysis.* The Applicant's expert used an identification methodology that severely limited the role that such analysis might play in the overall assessment of the impact of the proposed Project. According to the testimony of the expert, bare ground analysis was only used in the process of identifying resources. In many regions that would be affected by the Project, including the Pemi River valley south of Plymouth, bare ground analysis is admittedly of little use. Under bare ground analysis, the Project is visible from all of the hillsides that flank the valley. Only because there is screening vegetation is the project not visible for the entire valley. The fact that the Project would be visible from the entire area under bare ground conditions does not mean that these conditions are not relevant to the Committee's determinations.

The distinction between bare earth conditions and actual conditions in the Pemi River valley south of Plymouth is primarily the presence of stands of timber. These stands of timber admittedly block of views of the river, and of the proposed project, in many areas. But these stands of timber have not always been there. The old photographs from the hillsides in Bridgewater contained in AD-N-ABTR Ex. 152 at pages 66, 108 and 116 demonstrate this historical pattern of land use in this area. The aerial views available through Google Maps and included in AD-N-ABTR Ex. 152 p. 112 and 115 indicate that substantial cutting consistent with these older land use patterns has continued.

Many of these hillside timber stands are now managed under current use standards to produce commercially valuable pine and hardwood lumber. Although it is unlikely that entire hillsides will be clear-cut, it is highly likely that additional areas

will be cut. Property owners may decide not only to harvest these timber stands, but to clear their properties for pastureland and hayfields. As a result of this cutting, the vegetative buffers relied upon by the Applicants' experts will be removed.

Some property owners may decide not to cut if cutting would open up views not of the river itself, but also of the towers proposed as part of the project. Thus the presence of the proposed project will inevitably limit the ways that these property owners decide to harvest their timber, since they will have to choose whether they want to maintain buffers that would block the view at the cost of a more limited harvest. Moreover, these property owners will have no way to prevent their neighbors from harvesting timber in ways that remove these timber buffers. The Applicant's experts admitted that bare ground analysis might be appropriate if timbering operations were anticipated. Supplemental Joint Testimony of Dewan and Kimball, Applicant's Ex. 1, p. 7. It is unclear why these experts did not take timbering operations underway in this region into account. There is a biomass plant, the function of which is to create power from the byproducts of local lumbering, immediately adjacent to the location of the proposed project in northern Bridgewater. Recently cleared areas can clearly be seen from the road and from aerial photographs. Evidence of timbering operations, from "Tree Farm" signs posted along roadsides, to the timber tax collections of towns, was readily available to Applicant and its experts. AD-N-ABTR Ex. 152 p. 129.

Timber buffers are also likely to be affected by other factors that are not within the control of property owners and their neighbors. Trees that provide vegetative buffers close to the river are constantly lost to erosion. Pests may remove large stands of trees abruptly when those stands include only a single susceptible species. Public utilities with rights of way for local distribution—which benefits the landowner and her neighbors directly—may need to clear in ways that remove the vegetative screening upon which the Applicant's experts relied.

The record contains little if any justification for the failure to analyze the impacts of the project with timber operations, or any other loss of vegetative buffer. There was some suggestion that only the Applicant had an obligation only to assess “current conditions.” E.g, Supplemental Joint Testimony of Dewan and Kimball, Applicant’s Ex. 1, p. 7. Surely “current conditions” includes historical and existing land use practices. Similarly, “current conditions” includes the possibility of loss of vegetation as the result of known natural forces. The Applicant has failed to provide information that would allow the Committee to evaluate these impacts.

2. *The role of “designations.”* The Applicant’s experts, both with respect to historic properties and locations and with respect to scenic routes, maintained that only those resources that achieved an official status as determined by a government agency should be taken into account. For instance, The Applicant’s historic expert acknowledged that her methodology for assessing the potential impact of the Project on historic resources was limited to NHR eligible properties; the applicant’s visual impact expert acknowledged that only designated byways were taken into account.

This approach to identifying and assessing the potential impact on New Hampshire resources is likely to produce an understatement of this impact. There are many reasons why property owners might not want to go the expense of having their historic properties registered; there are many reasons towns might actually see a disadvantage in having their roads designated as scenic. Many cherished resources are enjoyed because they are not only private but relatively undisturbed. These resources may not be able to accommodate any significant increase in their use, or any greater notoriety beyond the local users who have a stake in maintaining the resources.

Designations are undoubtedly useful in some instances, and the fact that a resource has been designated is an indication of the significance of the resource to those who proposed and supported the designation. But the lack of designation may not mean

very much. Designation with respect to small scale resources may be feared as leading to degradation and overuse. Designation will rarely be sought for a resource if that resource is overused and designation is not likely to afford any protection from increased use. The fact that there has been no official designation requested with respect to a resource should not mean that the potential impact of the Project should not be included in the Committee's assessment.

The Applicants' experts appear to have made no attempt to help the Committee understand the extent to which resources have in fact been designated. Indeed, the Applicant's assumption seems to have been that designations have been made with respect to all resources that might conceivably be eligible. In order to understand the overall impact of the project, the Committee needs to understand the extent to which this assumption is true. But the record contains very little, if any, guidance for the Committee on this question. As a result of this excessive reliance on formal designations, the Applicant has failed to provide information that would allow the Committee to evaluate all of the impacts of the project.

3. *The need for the expenditure of public funds for "scenic resources."* The Applicant's questioning and some of the responses of its experts suggests that it takes the position that the recreational current use program should not be considered an expenditure of public funds. Its argument apparently is that the funds not collected from landowners holding properties in current use are collected from other landowners, and therefore cannot be equated with a budgeted expenditure. This approach to public expenditures may be appropriate in situations in which only a limited portion of the potential assessed valuation is subject to current use. That is not the case in many of the towns along the Pemi River valley, where substantial percentages of assessed value are committed to current use, and where a large number of the property owners hold both parcels in current use and not in current use. For these towns, the current use program and the towns' approaches to administering it, reflect what amounts to a commitment to forego revenues in order

to preserve the current use qualities of the land. Such “tax expenditures” should be counted as a use of public funds.

Moreover, even if the current use program is not technically an expenditure of public funds, the program itself is a clear statement of the importance of the lands the program protects to the state and to the units of local government that administer it. This is evidenced by the promotional material used by the State of New Hampshire to encourage participation in the program—a program which has a successful history of participation beginning long before property owners might have felt threatened by proposals for new energy facilities. See AD-N_ABTR Ex. 62, page 129.

The Applicant’s apparent position, that the current use program is irrelevant to the Committee’s determination, is an indication that the Applicant and its experts do not understand what it is that the state, the towns, the residents of and the other property owners in New Hampshire value.

4. The exclusion of commercially operated properties from scenic resources and the insistence upon tourist destinations of national significance.

Applicant’s experts used criteria that limited the amount of information that was presented about several types of resources that are significant in the Pemi River valley, including small privately operated campgrounds. Under the approach used by the Applicant’s experts, only piecemeal evidence was provided about the impact of the project on these resources, whether in terms of visual impact, property values, tourism, or local economy.

It is true that, for other similar properties affected by the proposed project in other regions of New Hampshire, interested parties were able to provide some of the information omitted by the Applicant. The fact that some such information was provided for some areas does not mean that the Applicant had no obligation to help the Committee to make its determinations by providing the information.

It is possible that the damage to these resources in the Pemi Valley would be small compared to the overall benefit to the state from a proposed energy facility. But that is a determination that the Committee itself should make based on all of the relevant information. The Applicant's approach has hampered the Committee's ability to make a well-considered determination.

As a result of the filtering definitions used by Applicant's experts, the Applicant has failed to provide information that would allow the Committee to evaluate the overall impact of the project.

5. *The methodology using computerized analysis of vegetative buffers to determine visibility failed to identify actual visibility.* Applicant's expert used computerized data to determine whether the Project would be visible. The transcript contains much debate about the methods used in this computerized analysis, but even if all such doubts about the Applicant's experts' methodology were removed, the Applicants' experts conclusions are questionable.

Computerized methods are likely to be appropriate in an initial evaluation of impacts. As the Applicant's experts acknowledged, however, better information can be obtained when computerized analysis is supplemented by field observations. But there is very little, if any, evidence in the record of the approach that was taken in making these field observations undertook such observations. One aspect seems to have been to look for places "in which the public seemed welcome." Testimony of DeWan, Transcript of Day 34 pm, p. 76 and passim. This approach clearly overlooks the fact that the public on foot is welcome on lands in current recreational use, and that class 6 roads are open to the public using any mode of transportation even if there are gates and other barriers that may discourage their use. For examples of such lands—which are open to the public for many but not all purposes, see AD-N-ABTR Ex. 52, page 84 (access to a snowmobile trail across recreational current use land indicating that other motorized uses are forbidden) page 109 and 118-19 (access to an unmarked class 6 road with unlocked gates).

These field observations actually conducted by the Applicants' experts failed to identify locations where in fact there is current visibility and where it is highly likely that there would be greater visibility if the project is completed. AD-N-ABTR Ex. 52, page 111. The point is not that visibility from any particular omitted location would be enough to lead to the conclusion that the project would have an unreasonable adverse impact. The point is that the Committee has not been given enough information about the likelihood of unidentified locations with visibility to properly assess overall impacts.

IV. Inadequacy of the Methodologies Applied to Identified Resources

With respect to those resources that were identified, the Applicant's experts used methodologies in evaluating effects that obscure rather than clarify the overall impact of the project. To the extent that such methodologies were relied upon in reaching a conclusion that any particular impact is insignificant or in reaching the conclusion that overall impacts are not unreasonably significant, these conclusions should be rejected.

A. The treatment of "linear resources." The Committee should reject the conclusions of the Applicant's experts regarding the impact of the Project in the several places in which those experts have insisted upon viewing places of significant scenic and environmental significance as "linear." Under this approach, any impact of the proposed project would be very small (measured in terms of feet or yards) in terms of the size of the overall resource (measured in terms of tens of miles). Such approaches inevitably lead to understating the overall impact of the Project. While the Committee's determination might appropriately take into account how much of any given resource would remain unaffected by the proposed project, the Applicants' experts approach assumes that this is the primary consideration in determining whether there has been an adverse impact.

This approach has hindered the Committee's understanding of the overall impact of the project on several resources, including the Pemigewasset River as a scenic

resource and as a tourist destination. Hiking trails and snowmobile trails were also essentially treated as “linear resources.” No matter how significant the adverse impact at any particular location might be, the impact would be diluted.

The treatment by the Applicant of the Boston, Concord and Montreal Railroad/Concord & Montreal Railroad was similarly incomplete for reasons. The Railroad Bridge (formerly part of the Boston and Maine line) crosses the Pemigewasset River immediately south of Route 3 (Main Street in Ashland as it leaves Ashland and enters Bridgewater immediately south of Plymouth). It was identified and evaluated by the Applicant’s historic experts, in Applicant’s Exhibit 18 and Appendix 18 to the Application, and in the Project Area Form prepared for submission to NH DHR, CFP Ex. 406. This resource is misidentified in the transcript as spanning the Pemigewasset within sight of New Hampton, Day 27, in the transcript. The criteria for the inclusion of this resource, and whether the resource in question is only the bridge for its significance in engineering history, or the railroad itself for its historical and contemporary significance to the tourist industry assessment is unclear.

The Applicant’s historic experts analyzed the railroad from Ashland to Plymouth and an adverse impact was acknowledged. But there appears to have been no analysis done of the impact on the continuing operations of the scenic railroad from the location of Transition Station 6 immediately adjacent to the tracks in the northern most corner of Bridgewater, or the effect of the increased volume of structures in the several hundred yards to the south of this transition station. See AD-N-ABTR Ex. 52, page 158 and AD-N-ABTR Ex. 54 pages 13 and 19. Indeed, it is likely that neither the state nor the operator of the railroad had been consulted regarding the impact of the project until the fall of 2017. AD-N-ABTR Ex. 67.

B. The screening of scenic resources by their cultural significance. The abstruse methodology use by the Applicant’s visual impact experts makes it very difficult to unpack which parts of their analysis are based on insignificance of the

impact rather than insignificance of the resource. For this reason, apparently, the Applicant did very little analysis of the potential impact of the project on snowmobile trails, despite the resources devoted to such trails by the state, the town, NH residents, and the ability of these resources to attract out-of-state tourists. AD-N-ABTR Ex. 52, page 149 and following. This conflation of issues does not assist the Committee in making its overall determination.

C. The inclusion of evidence of “human development” in the measure of scenic quality. Although the Applicant’s experts methodological explanation suggested that scenic resources with evidence of human development would be valued more highly than those without evidence of human development. The failure to include this factor in evaluating the impact at the Sawhegenet Recreation Area was never adequately explained. See AD-N-ABTR Ex. 52, pages 65-67 and page 114, considered by the Applicant’s experts on Day 34 at pages and AD-N-ABTR Ex. 64 and 65. Unexplained inconsistencies such as this call into question any conclusions that may have been made by Applicant’s experts, and further suggest that the Applicant has not met its burden of proof.

V. Public Health and Safety Risks

The SEC’s mandate with regard to determining an unreasonable adverse effect on public health and safety is to consider the **potential adverse effects** of construction and operation of the proposed facility on public health and safety, the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate such potential adverse effects, and the extent to which such measures represent best practical measures. NH Admin. Rules, Site 301.14(f)(1).

The Committee must also consider the **potential impacts on public health and safety of electric and magnetic fields** generated by the proposed facility, and the effectiveness of measures undertaken or planned to avoid, minimize, or mitigate such potential adverse effects, and the extent to which such measures represent best practical measures. NH Admin. Rules, Site 301.14(f)(4). Of particular significance, the rules governing decision-

making by the SEC do not require the impacts on public health and safety to be proven indisputably.

There are three aspects of the issue of potential impact on public health and safety that are known and worthy of consideration by the Committee in making its determination:

1. Many health effects and conditions associated with increased exposure to EMF have been reported in the scientific literature. Those conditions for which there is some evidence of increased risk include, but are not limited to:

- Childhood leukemia (AD-N-ABTR Exhibit 5- pp. 155-159, AD-N-ABTR Exhibit 6-pp. 694-698, AD-N-ABTR Exhibit 7- pp. 1-5, AD-N-ABTR Exhibit 8- pp. 624-633, AD-N-ABTR Exhibit 9- pp. 307-311, AD-N-ABTR Exhibit 10- pp. S51-S59, AD-N-ABTR Exhibit 11- pp. 263-270)
- Miscarriage (AD-N-ABTR Exhibit 11- pp. 243, AD-N-ABTR Exhibit 5- p. 184)
- Neurobehavior, such as reduced reaction time, reduced accuracy in the performance of cognitive tasks, sleep quality, depression (AD-N-ABTR Exhibit 11- pp. 118-144)
- Childhood asthma (AD-N-ABTR Exhibit 5- p. 185)
- Childhood obesity (AD-N-ABTR Exhibit 5- p. 186)

2. Insufficient data regarding potential health risks cannot be equated with the absence of significant risk. Scientific review groups and researchers call for further research, acknowledging knowledge gaps that prevent drawing definitive conclusions about health risks associated with EMF exposure. Existing data create sufficient concern among these groups to warrant prioritizing research with regard to many potential health effects. The Applicant's public health and safety witness, Dr. Bailey, minimizes the significance of multiple studies that have led the scientific community to voice these concerns. (Applicant Exhibit 1, Pre-Filed Testimony of Dr. William Bailey, dated October 16, 2015, pp. 6-8) His references to having conducted "an overall assessment" of the scientific evidence skirts the findings of individual studies that report significant associations between the occurrence of health effects with exposure to levels of EMF comparable or lower than levels expected with the Northern Pass transmission lines. The lack of a "currently known biophysical mechanism" to explain the potential carcinogenic effect of EMF does not mean that

such a mechanism doesn't exist. In Kheifets et al, published in Pediatrics 2005 (AD-N-ABTR Exhibit 9, p. e306), the authors state, "the mechanism by which leukemia arises is likely to involve gene-environment interactions, the environmental exposures being derived from both endogenous and exogenous sources." The Northern Pass HVTL represents a significant exogenous (external) environmental source. This fact provides further justification not to take actions that would unnecessarily increase exposure until additional research is conducted to fully explain the biophysical effects of EMF.

- The Applicant and its witness, Dr. Bailey, see the lack of evidence as reason enough to proceed with a project that will most certainly increase exposure to EMF by residents living near the HVTL, particularly in the AC portion of the project. This runs counter to calls for precautionary measures by the WHO (AD-N-ABTR Exhibit 11, p. 12), along with many in the scientific community, that include reducing EMF exposure. It is the Committee's responsibility under Site 301.14(f)(4) to consider potential impacts and under Section 162-H: 16(c) must only approve certificates that find that there is no unreasonable adverse effect on public health and safety. The Committee cannot be assured that there will be no such unreasonable adverse effect in the presence of repeated findings in multiple scientific studies of potential risk, particularly to the most vulnerable members of society- our children.
- The World Health Organization (WHO), in its 2007 report on Extremely Low Frequency Fields (AD-N-ABTR Exhibit 11), details an extensive list of recommendations for future research into a variety of health effects including those listed above as well as several others, related to exposure to EMF. The WHO calls resolving the conflict in the data associated with childhood leukemia the "highest research priority." (AD-N-ABTR Exhibit 11, Section 1.2, page 17)
- The SCENIHR 2015 Opinion on Potential health effects of exposure to electromagnetic fields (AD-N-ABTR Exhibit 5) calls for additional studies in a variety of health conditions, notably childhood leukemia, neurodegenerative diseases, and maternal exposure and its impact on childhood asthma and obesity.
- Researchers conducting studies and analysis of data regarding the health effects of EMF exposure consistently call for additional studies as a high priority to fully assess the potential vulnerability of children to EMF. (AD-N-ABTR Exhibits 6-10) Published reports of these studies have been entered into this docket (AD-N-ABTR

Exhibits 6-10) and reflect more than fifteen studies worldwide with data on over 2500 cases and 7000 controls studied. In 2005 the WHO sponsored an expert workshop on the potential vulnerability of children to EMF. The discussions and recommendations emanating from this workshop were published in the medical journal Pediatrics in 2005 and are submitted AD-N-ABTR Exhibit 9. In this publication a research agenda is described “that identifies high-priority studies needed to fully assess the potential vulnerability of children” to ELF (EMF). (AD-N-ABTR Exhibit 9, p. 311.

- The International Agency for Research on Cancer, an agency of the WHO, has classified extremely low magnetic fields, such as those expected to be created by this project, as possibly carcinogenic (Group 2B). (Applicant Exhibit 1, Appendix 37, page 44). This classification indicates a sufficient scientific basis to expect that these magnetic fields could have a potentially adverse impact on the health and safety of the people of New Hampshire who live (and recreate for extended periods of time) in close proximity to these proposed HVTL.

3. Increasing the potential for adverse health risks in significant numbers of New Hampshire residents is not justified given the fact that the Northern Pass project is not a reliability project and is not needed to meet the future energy needs of New Hampshire.

- Epidemiological studies continue to consistently replicate earlier findings of an approximately two-fold risk of childhood leukemia with estimated daily average exposures above 0.3 to 0.4 μT . This level of EMF is predicted by the Applicant to be present all along the entire AC portion of the Northern Pass project as far as 300 feet from the center of the right-of-way. (AD-N-ABTR Exhibit 25)
- The locations of the transmission lines proposed in this application are in close proximity to a large number of residences, including housing for the elderly. In fact, there is an elderly housing complex just 50 feet away from the right-of-way in Deerfield. (AD-N-ABTR Exhibit 15) Risks of health effects linked with exposure to EMF increase as proximity and duration of exposure increase. (AD-N-ABTR Exhibit 5) Data linking EMF with reduced reaction time, sleep problems, and anxiety mean that anticipated levels of exposure with Northern Pass HVTL can have devastating consequences for the elderly.

- The WHO 2007 report on Extremely Low Frequency Fields (AD-N-ABTR Exhibit 11) offers many recommendations of what it terms “suitable precautionary procedures.” These measures are both “reasonable and warranted.” Many of these recommendations pertain to the need to reduce levels of exposure to EMF, calling for EMF protection programs and the implementation of measures to reduce EMF exposure when constructing new facilities- not to increase exposure, as is being proposed by this project.
- The WHO, in its Protective Measures section of the 2007 report (AD-N-ABTR 11, Section 13.2, page 359), recommends consideration of various factors in the development and implementation of governmental policy (such as the granting of a site and facility certificate under the SEC process), in addition to considering the scientific evidence. The report states, “the question policy-makers strive to answer is “What is the best course of action to protect and promote health?”” These factors include public health/safety; the net cost of the policy (not merely the monetary cost, but the direct and indirect costs to society as well); public trust; stakeholder involvement; non-discriminatory treatment of sources; ethical, moral, cultural, and religious constraints; and reversibility. Bringing each of these factors to bear in its decision-making process, together with the public health and safety risk concerns in the scientific data, should inevitably lead the SEC to deny this application.
- “Prudent avoidance” is the precautionary-based approach recommended in the same WHO document for policy developed for power-frequency EMF. This approach is especially appropriate when making policy decisions that can potentially avoid a disease that affects mostly children (and possibly the elderly in this project’s design) and where exposure is involuntary. “Low-cost measures that can be taken include routing new power lines away from schools and phasing and configuring power line conductors to reduce magnetic fields near rights-of-way” are indicated as a means of achieving prudent avoidance. (AD-N-ABTR 11, Section 13.4, page 363) There is no more effective “low cost measure” available to the SEC than denying the certificate for this non-reliability project. This is particularly the case as the Committee gives careful consideration to these factors (especially public health/safety, net cost of the project, stakeholder involvement, public trust, and reversibility) in it’s decision-making process.

- The Northern Pass project is not a reliability project. (Quinlan testimony, Day 2 Afternoon, April 14, 2017, transcript page 39) When the potential for adverse health effects of operation of the Northern Pass project is taken together with the lack of demand in New Hampshire for the power being transmitted through the project and considered in the context of factors like public trust or the public interest, there can be no basis to justify imposing this potential risk on the people of New Hampshire. The direct and indirect costs to our society are too great to justify New Hampshire bearing all the burden of risk and receiving so little benefit.
- The Applicants have not included any information about avoidance, minimization, or mitigation of potential public health effects in their application. This demonstrates a complete lack of regard for the potential impacts of this Project on the health and safety of the people living in the communities and along the proposed route of this unnecessary boondoggle.

VI. Impacts on Orderly Development

The Applicant's expert's approach is simply that the use of existing corridors is in fact orderly development. While this might be true with respect to some types of utility corridors, it is not true of this area given its unique history. Until the turn of the twentieth century, the Pemigewasset River valley was the only corridor through the center of the state. It was the location chosen by native populations seeking nourishment, because of its fertile intervals. It was the route chosen by early settlers, because the valley provided the easiest access to the north. The fertile intervals made development by those early settlers attractive. The accessibility the river provided made settling on the nearby hillsides—where the climate was predictably milder—possible. The narrow height of land between the river and the hillside soon also accommodated local roads to the markets further to the south. This same corridor was also the best route for the railroad, which from early on accommodated both farmers seeking to get produce to market and travelers coming to the North Country. All of these uses could be sustained at the same time and left the land with few if any permanent scars.

In the early twentieth century, however, the Pemi began to serve another purpose. It became a conduit for the disposal of industrial and human waste. As the river during this time period became more noxious, people turned their back on it. No one sought to be close to the river, and settlement patterns were no longer defined by any desirable qualities it may once have had. By mid-century, property values declined and light industry was more likely to have located near the river.

Those same low property values made it possible to use the corridor to build I-93 within the valley. The limited development that had occurred meant that the interstate highway provided travelers not just with access to summer homes and local attractions, but with a separate scenic experience.

In the 1970's, as the result of the Clean Water Act and other state initiatives, the Pemi was restored. As a result, the pattern of development in the river valley changed again. There was an increased interest in living along the river. New homes were built, and old homes began to be restored again. The local roads that flank the River are favorite routes for biker and motorcyclists. The reclaiming of the River and its scenic attributes is not complete. There remains an inventory of unrestored but occupied pre-Civil War homes. The McLane table of such homes, AD_N_BTR Ex. 56, includes only those in Bridgewater—not Ashland, New Hampton, Bristol or Sanbornton. The restoration of these homes—both as residences and as businesses—is a major economic driver in the area. The seasonal occupants of these restored homes, and their guests, have created a demand for restaurants, shops, and entertainment venues that could not have been imagined 50 years ago. Tourism in this area is not likely to include nationally acclaimed attractions.

Tourism in this area is much more likely to involve a place to put a canoe in the river, a favorite view from a class 6 road, a private fishing hole, a ledge accessible only by a path across land in current use, or a local road to bike on. These activities do not involve major tourist “destinations,” except in the sense that the entire area should be viewed as a collection of small and locally valued destinations.

Preserving the environment which these small scale destinations afford to seasonal occupants. This scenic environment is the reason they are willing to invest.

There have been pockets of development in this area that are not entirely consistent with this scenic character. The building of I-93 brought with it not only more tourists but more gravel pits. It also made industries like a biomass plant more economical, given the reliance on such industries on transportation of raw materials. But as an aerial view of the River valley unquestionably portrays (see AD-N-ABTR Ex. 54, page 68), the dominant character of the area is a scenic river valley. And, should the value of these structures and their uses change, the scars that will be left in the landscape are far smaller and far more easily removed than those involved in the Northern Pass project.

There will be pressure on maintaining these scenic qualities, even if the Project is not built. New the demand for housing on locations with views will continue to put pressure on land use decisions that seek to limit development and discourage timber clearing. It will make preservation of water quality more difficult. Towns like Bridgewater have found ways to balance the economic needs of the region with the growing importance of the scenic qualities. It has not been totally resistant to all development, but has allowed development and made land use planning decisions that balance local input.

This is not a story of an inevitable path to additional industrial development. And it certainly is not a story that suggests that structures should be permitted that are far more intrusive and far more permanent than any of the industrialized features that are now present in this area. There are many indications of the importance of restraint in development along this river corridor. One such indication is the scenic easement held by the State of New Hampshire to preserve the view of the Pemi from I-93. This easement, which encumbers land on both the New Hampton and the Bridgewater sides of the river, limits the ability of private landowners to construct buildings or leave their properties in unsightly condition. These properties are shown in the photos in AD-N-ABTR Ex. 52, pages 169-70 and AD-N-ABTR Ex. 54, page 49. It is a clear indication that “orderly development” includes accounting for

scenic resources. Nevertheless, the Applicant's position appears to be that because its right of way is not on the parts of its holdings at this location that are legally subject to the easement, the presence of the easement should not constrain its construction of towers that are may be visible from the vantage point protected by the easement.

Maureen Quinn
47A Nottingham Road
Deerfield, NH 03037

On behalf of the Ashland to Deerfield NonAbutters Intervenor Group

This document has been sent by email in accordance with the rules and orders of the SEC

January 12, 2018