

THE STATE OF NEW HAMPSHIRE

SITE EVALUATION COMMITTEE

Docket No. 2015-06

Joint Application of Northern Pass Transmission LLC
And Public Service Company of New Hampshire
d/b/a Eversource Energy for a Certificate of Site and Facility

**POST-HEARING MEMORANDUM OF THE ABUTTING PROPERTY OWNERS –
BETHLEHEM TO PLYMOUTH (APOBP)**

TABLE OF CONTENTS

	Page
I. Introduction	3
II. Summary of Argument	3
III. Applicable Legal Standards	6
IV. Coal Fly Ash (CFA)	8
A. Coal Fly Ash Contains Heavy Metals That Are Toxic and That Readily Leach into the Environment	8
B. The Applicants' Proposed Use of Coal Fly Ash is Particularly Dangerous for the Environment and Human Health	10
C. The Applicants Propose to Place CFA in Highly Sensitive and Valuable Environments	12
D. The Applicants Have Not Conducted the Required Studies Associated with the Proposed Use of CFA	14
E. The Proposed Use of CFA Would Interfere with the Orderly Development of the Region	15
F. The CFA Use Proposed by the Applicants is Not Encapsulated Use	16
V. The Proposed High-voltage Transmission Line is in Close Proximity to Homes and Wells	18
VI. Proposed Transmission Line Creates Undue Interference with Orderly Development	19
VII. The Applicant Lacks Property Rights and Seeks Unprecedented Use of State Roads as Energy Corridors	21
VIII. Proposed Benefits of Forward New Hampshire Fund do Not Offset Negative Impacts on Orderly Development and Regional Economic Growth	23
IX. Argument in the Alternative: Conditions Required	24
X. Conclusion	30

I. INTRODUCTION

The Abutting Property Owners – Bethlehem to Plymouth (APOBP), who own land along the Applicant’s proposed underground route down State highways – Routes 18, 116, 112, and 3 - urge the Site Evaluation Committee (SEC) to DENY the Northern Pass (NP) application based on the following factors pertaining to this underground portion of the route.

II. SUMMARY OF ARGUMENT

The current application encompasses one of the most complex projects ever submitted to the SEC. Testimony presented during the Adjudicative Phase provided uncontroverted and credible expert opinion that, if approved, the project would have an unreasonable adverse effect on: orderly development of the region; aesthetics; historic sites; air and water quality; the natural environment; and public health and safety.

Based on these incontrovertible facts, issuance of a certificate for this proposed project would be contrary to the public interest. The subcommittee is compelled under the requirements of RSA 162-H:16 to deny a certificate to the proposed project.

In particular, the underground portion of the proposed project, from Bethlehem to Plymouth, is a hastily adopted, late-hour patch in the application, which the applicants hoped would salvage a proposal that is wholly unacceptable as a matter of law. Due to the precipitous manner in which it was adopted, this underground portion of the proposal has never benefitted from full and required study, either before or after being proposed.

Even at the present moment, after close of the Adjudicative Phase, key aspects of the underground portion of the proposal have not been determined. While the initial application presented to the Subcommittee in December 2015 may have been adequate to support the commencement of review by the Subcommittee, the Applicants have changed their proposal very substantially since they submitted that application, and, to this date, have failed to submit adequate information (as defined at RSA 162-H:7) about the proposed project to support issuance of a Certificate of Site and Facility. On this basis alone, any Certificate for this proposed project must be denied.

As work continues on the underground portion of the proposal, more and more problems with this hastily adopted component become apparent. These problems arise from the fact that the underground portion of the project is proposed to be sited:

- in the commercial centers of villages and towns;
- along State-designated scenic byways;
- in residential neighborhoods and in the front yards of abutters;
- in very close proximity to abutters' homes and other structures;
- within the wellhead protection areas of, and in close proximity to, countless drinking water wells;
- within the aquifer protection zones of important aquifers;
- on USDA-designated Prime Farmland that is currently supporting commercial agriculture;
- within wetlands and other sensitive natural areas;
- within the headwaters of the Ammonusuc and Wild Ammonusuc Rivers; and

- within the White Mountains National Forest (WMNF) for over 10 miles.

Although the Applicants had the option of selecting from several fully feasible alternative routes that would avoid all of the sensitive features listed above, they hastily adopted the proposed route without adequate consideration, and now find that the project as proposed is not approvable under the provisions of RSA 162-H:16.

Testimony presented during the Adjudicative Phase provided uncontroverted and credible expert evidence that, if approved, the underground portion of the proposed project alone would have an unreasonable adverse effect on: orderly development of the region; aesthetics; water quality; the natural environment; and public health and safety.

In particular, the proposal by the Applicants to backfill the underground transmission line trenches with material containing coal fly ash (CFA) is a disqualifying aspect of this application. Incontrovertible and credible expert evidence was presented during the Adjudicative Phase, and is presented below, demonstrating that the use of CFA as backfill material would result in the contamination of groundwater, surface water, soils, vegetation, and the food chain along the 61-mile underground route with toxic heavy metals.

This constitutes perhaps the most egregious deleterious impact of the entire proposal, and without question constitutes an unreasonable adverse effect on water quality, the natural environment, human health and safety, and orderly development of the region. By itself, the proposal to use CFA as a backfill material disqualifies the proposed project for issuance of a

Certificate of Site and Facility under RSA 162-H:16. The Subcommittee is compelled to deny any Certificate for this proposed project on this basis alone.

III. APPLICABLE LEGAL STANDARDS

The applicant is required to prove, by a preponderance of evidence, facts sufficient to satisfy all of the standards set forth in RSA 162-H:16, as found by the subcommittee duly authorized to issue the decision on the application.¹

The applicant must prove that it has “adequate financial, technical, and managerial capability to assure construction and operation of the facility in continuing compliance with the terms and conditions of the certificate.”²

The applicant must prove that the facility will “not unduly interfere with the orderly development of the region with due consideration having been given to the views of municipal and regional planning commissions and municipal governing bodies.”³

The applicant must prove that the facility will not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety.⁴

¹ See NH Admin. R. Site 202.19 (a), (b).

² RSA 162-H:16, IV(a).

³ RSA 162-H:16, IV(b).

⁴ RSA 162-H:16, IV(c).

The subcommittee's decision must be based only on the record and must be made by a majority of the full membership of the subcommittee.⁵

The subcommittee must consider available alternatives and fully review the environmental impact of the site and other relevant factors before acting on the application.⁶

The subcommittee is authorized to condition approval of an application on such terms as it deems necessary, including reasonable monitoring and the results of agency studies whose study period exceeds the application period.⁷

The subcommittee may not approve the application unless all of the standards are met by all components of the project, meaning that even if only one standard is not met, or if only one component of the project does not meet the standards, the subcommittee must deny the application.

⁵ RSA 162-H:16, II.

⁶ RSA 162-H:16, IV

⁷ RSA 162-H:16, VI, VII.

IV. COAL FLY ASH (CFA)

A. COAL FLY ASH CONTAINS HEAVY METALS THAT ARE TOXIC AND THAT READILY LEACH INTO THE ENVIRONMENT

The fact that CFA is a toxic material that contains toxic heavy metals is indisputable, and is universally accepted throughout the scientific community. The scientific literature contains many hundreds of peer-reviewed documents indicating this fact (see for example Exhibit APOBP 79⁸). Numerous publications by U.S. Government agencies state the same thing. The USEPA web page currently states: “Coal ash [specifically including CFA] contains contaminants like mercury, cadmium and arsenic associated with cancer and various other serious health effects. Environmental Protection Agency’s (EPA) estimates of potential risk and evaluation of damage cases demonstrate that, without proper protections, these contaminants can leach into groundwater and can potentially migrate to drinking water sources, posing significant public health concerns.”⁹

The U.S. Geological Service (USGS) states that: “Coal ash...contains minor amounts of trace elements including chromium, nickel, zinc, arsenic, selenium, cadmium, antimony, mercury, ...lead...and...uranium.”¹⁰

⁸ APOBP 79 Carlson, Claire and Domy Adriano. Environmental Impacts of Coal Combustion Residues. Journal of Environmental Quality. 1993.

⁹ APOBP 78 US Environmental Protection Agency. Frequent Questions about the Coal Ash Disposal Rule. www.epa.gov/coalash/frequentquestions-about-coal-ash-disposal-rule 01/11/2018

¹⁰ Exhibit APOBP 76 US Dept of Interior, U.S. Geological Survey. Trace Elements in Coal Ash. Fact Sheet 2015-3037. May 2015.

All CFA contains heavy metals. CFA from different sources contains heavy metals in different concentrations¹¹.

The heavy metals present in CFA are hazardous to human health. “If eaten drunk, or inhaled, these toxicants can cause cancer, nervous system effects such as cognitive deficits, developmental delays, and behavioral problems. They can also cause heart damage, lung disease, respiratory distress, kidney disease, reproductive problems, gastrointestinal illness, birth defects, and impaired bone growth in children.”¹²

The heavy metals in CFA are in a mobile and readily leachable or available form. Although present in CFA in low concentrations, these heavy metals readily leach into and reach significant concentrations in water, due to their high degree of availability.¹³

The Applicants’ intention to use coal fly ash was not disclosed in its Application, nor in time for intervenors to provide full expert testimony on the serious public health and safety aspects related to presence of coal fly ash.

¹¹ Exhibit APOBP 77 Physicians for Social Responsibility. Coal Ash: Hazardous to Human Health.

¹² Exhibit APOBP 77 Physicians for Social Responsibility. Coal Ash: Hazardous to Human Health.

¹³ Exhibit APOBP 88 Flues et al. Toxic Elements Mobility in Coal and Ashes of Coal Power Plant, Brazil. Fuel 103, 430 – 436 (2013).

B. THE APPLICANTS' PROPOSED USE OF COAL FLY ASH IS PARTICULARLY DANGEROUS FOR THE ENVIRONMENT AND HUMAN HEALTH

The applicants propose to construct a trench, and backfill it with Fluidized Thermal Backfill (FTB) containing CFA. This trench would extend from Bethlehem to Plymouth (over 50 miles, not counting horizontal directional drilling segments). The proposed trench would be at least three feet wide, and would extend to at least seven feet below the ground surface (based on NHDOT depth requirements).¹⁴ Thus, a 50-mile, underground wall, containing thousands of tons of CFA would be constructed between Bethlehem and Plymouth.

Over many portions of the route, the shallow groundwater aquifer is only two to three feet below the ground surface. A case in point is Franconia Farms, at 1900 Easton Road, Franconia, on the proposed underground route. The shallow aquifer in the area abutting Route 116 on Franconia Farms is less than three feet below the ground surface.

This means that in many places, the proposed wall of CFA-containing material would be actually submerged permanently within the shallow aquifer.

The FTB material would be porous. It would not set into a solid concrete block, but rather, according to the Applicants' engineers, would remain a: "low-strength, hand-excavatable material. FTB is water permeable similar to DOT gravels, does not create water dams, and

¹⁴ Exhibit APOBP 81 NH Dept of Transportation. April 3, 2017 letter from Commissioner Sheehan to Pamela Monroe. Re Northern Pass Transmission, LLC & Public Service of New Hampshire d/b/a Eversource Energy – Docket No. 2015-06.

behaves as a ‘French drain’ in poor soils.” (statement of Eversource engineer to NHDOT)¹⁵ The fact that the FTB material would remain permanently porous was confirmed by two additional Northern Pass engineers, under oath, on different days of the Adjudicative Hearings^{16,17}.

Thus, the applicants propose to permanently submerge thousands of tons of CFA in a water-permeable form, into the shallow aquifer at Franconia Farms and in many other locations along over 50 miles of proposed underground route. Groundwater would be flowing into, out of, and through this wall of FTB containing highly leachable toxic metals, virtually forever. This constitutes a completely unprecedented use of CFA.

The high availability of the heavy metals in CFA, and the presence of flowing water passing through CFA incorporated in fluidized backfill, present an unacceptable risk to the health and safety of abutting and non-abutting property owners. Heavy metals leached out of the CFA would migrate with ground water. Over time, a contaminant plume would form in the aquifer downgradient of the trench site. Where the contaminated aquifer emerges to streams, surface water would be contaminated. Contaminants would migrate upward through soils with capillary action, reach the roots of vegetation, and become bioconcentrated in this vegetation. Thus, ultimately, the toxic contaminants would reach the food chain. “The major potential impacts of [coal] ash disposal on terrestrial ecosystems include leaching of toxic substances into soils and groundwater...and increased mobility and accumulation of potentially toxic elements throughout

¹⁵ Exhibit APOBP 63 State of NH DOT Bureau of Highway Design. 10/05/2016. Conference Report on Northern Pass Project Sept 27, 2016 meeting.

¹⁶ See Tr. Day 18, afternoon session, pg 55, line 18, Jacob Tinus, Adjudicative Hearings,

¹⁷ See Tr. Day 3, afternoon session, page 146, line 10, Kenneth Bowes, Adjudicative Hearings,

the food chain.”¹⁸ This constitutes an unreasonable adverse effect on water quality, the natural environment, and public health and safety, and renders the project as proposed unapprovable under the provisions of RSA 162-H:16, IV(c).

C. THE APPLICANTS PROPOSE TO PLACE CFA IN HIGHLY SENSITIVE AND VALUABLE ENVIRONMENTS

The proposed underground route through Franconia and Easton would transect two large deep (Stratified Drift) aquifers. Virtually all of the drinking water wells along Route 116 between Franconia and Easton tap into these aquifers.^{19,20}

The use of backfill material containing CFA in the proposed power line trenches would pose a significant contamination threat to these aquifers, and health threat to the people consuming water from these aquifers. This constitutes an unreasonable adverse effect on water quality, the natural environment, and public health and safety, and renders the project as proposed unapprovable under the provisions of RSA 162-H:16, IV(c).

The proposed underground power line route passes through extensive farmland categorized by the USDA Natural Resource Conservation Service as Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance (collectively referred to here as Important Farmland). The proposed power line route is almost entirely within Important Farmland, from

¹⁸ Exhibit APOBP 79 Carlson, Claire and Domy Adriano. Environmental Impacts of Coal Combustion Residues. Journal of Environmental Quality. 1993.

¹⁹ Exhibit APOBP 82 NH Granit. <http://www.granit.unh.edu>. Map of Stratified Drift aquifer in Easton Valley under Route 116 and under Franconia Farms.

²⁰ Exhibit APOBP 83 Map of Residences and wells in close proximity to Route 116, Easton.

Franconia to where it enters the White Mountain National Forest (WMNF)^{21,22,23}. The use of CFA in trench backfill material poses a significant potential for contamination of soils and vegetation on the farmland in which the underground power line would be located. This constitutes an unreasonable adverse effect on the natural environment and public health and safety, and renders the project as proposed unapprovable under the provisions of RSA 162-H:16, IV(c).

The draft EIS for the proposed project²⁴ identifies impacts to Important Farmland as a potential negative impact of underground cable installation, and outlines the Best Management Practices (BMP) that should be employed to minimize these impacts. “Use of topsoil segregation as a BMP when trenching and replacement of the subsoil then topsoil would reduce the impact on Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance”.²⁵ Thus, replacement of indigenous soils (rather than use of imported FTB as backfill) is identified as a BMP mitigation measure to reduce deleterious impacts on Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance. In proposing to use FTB in trenches located in Important Farmland, the Applicants are clearly failing to adhere to BMPs identified in the EIS for this project.

²¹ Exhibit APOBP 64A USDA Natural Resources Conservation Service, Soil Survey of Grafton Country Area, p 288

²² Exhibit APOBP 84 USDA NRCS. Conservation Plan Map – Soils Inventory. (Map showing Franconia Farms.)

²³ Exhibit APOBP 87 Ecology and Environment, Inc. Geology and Soils Technical Report for the Draft Environmental Impact Statement. (Prepared for U.S. Dept of Energy, Environmental Impact Statement for Northern Pass Transmission Line Project.) July 20 2015.

²⁴ Exhibit APOBP 62A U.S. Dept of Energy, Draft Environmental Impact Statement, Northern Pass, pp 4-91 – 4-92

²⁵ Exhibit APOBP 62A U.S. Dept of Energy, Draft Environmental Impact Statement, Northern Pass, pp 4-91 – 4-92

D. THE APPLICANTS HAVE NOT CONDUCTED THE REQUIRED STUDIES ASSOCIATED WITH THE PROPOSED USE OF CFA

The USEPA considers unconsolidated CFA a material that poses significant hazard to human health and the environment, and as such has provided comprehensive guidance²⁶ regarding the use of CFA as structural fill material, which is how the Applicants propose to use CFA. The BMPs outlined by EPA require any project proponent that proposes to use CFA as a fill material to conduct the following studies:²⁷

- CFA characterization testing: “[The CFA] must be adequately characterized to ensure that the proposed use of the material does not cause environmental or public health problems”. This must include leach testing, using procedures selected based on the material to be used, hydrogeological setting, and structural fill application. Appendix 1 of Exhibit APOBP 80 provides guidelines for appropriate leach tests.
- Project suitability/qualifications study: “the soil, geology, and groundwater of the proposed site should be evaluated...Groundwater quality and quantity, the location of groundwater users, groundwater flow direction, and depth to the groundwater ...distance to surface waters including wetlands...” should all be studied. “Local zoning and land use plans, environmental characteristics, of the proposed site, engineering aspects, and proximity and relationship with landowners and neighbors.....” should be considered.
- Studies should be conducted to ascertain whether the proposed site is “within a wellhead protection area...[or]near a drinking water well ...”

²⁶ Exhibit APOBP 80 U.S. Environmental Protection Agency. Engineering and Environmental Guidance on the Beneficial Use of Coal Combustion Products in Engineered Structural Fill Projects.

²⁷ Ibid.

The use of CFA proposed by the applicants, involving the terrestrial placement of thousands of tons of CFA in an unconsolidated and permeable form, in a subterranean wall extending over 50 miles, in many places permanently submerged in groundwater, is completely unprecedented. No studies have ever been conducted to determine whether and to what extent such a use of CFA poses a threat to human health and the environment. Applicants have stated under oath that they have not studied the potential for leaching of contaminants into groundwater from their proposed use of CFA in the long term²⁸. The applicants have failed to conduct the above studies listed by USEPA as BMPs, and have failed to demonstrate by a preponderance of the evidence that the proposed use of CFA would not pose an unreasonable adverse effect on water quality, the natural environment, and public health and safety. This renders the project as proposed unapprovable under the provisions of RSA 162-H:16, IV(c).

E. THE PROPOSED USE OF CFA WOULD INTERFERE WITH THE ORDERLY DEVELOPMENT OF THE REGION

Residents and farmers along the proposed underground power line route have development plans that rely on the use of the shallow groundwater aquifers underlying their properties. A case in point is Franconia Farms, a commercial agricultural operation that produces organic, grass-fed beef. The entire basis of this business is the ability of Franconia Farms to offer beef from animals that have not been exposed to any type of contaminant. Franconia Farms relies on groundwater to hydrate its cattle herd, and has developed plans in conjunction with the USDA Natural Resource Conservation Service (NRCS) to increase its production capacity. Farm development plans prepared by NRCS include installation of a shallow well. The NRCS

²⁸ Jacob Tinus, Adjudicative Hearings Transcript, Day 18, afternoon, pg 20

development plan is presented in Exhibit APOBP 85²⁹ (the shallow well site identified by NRCS soil and pastureland experts is represented by the blue circle with the black cross mark inside it).

Based on the Applicant's most recent plans, as outlined in Applicants Exception Request No. 115³⁰ the applicant proposes to install the underground transmission line in close proximity to the identified well site. Due to uncertainty about the potential for contamination of the shallow aquifer on Franconia Farms, the farm development plans prepared by NRCS have been put on hold. The very viability of the Franconia Farms business is threatened by the potential for contamination of the ground water under Franconia Farms, and the resulting perception by potential customers that beef from Franconia Farms would be contaminated by heavy metals.

This is just one example of the manner in which potential contamination of groundwater by heavy metals leaching from CFA-laden backfill has an unreasonable adverse effect on orderly development of the region. As such, the project is ineligible for the granting of a Certificate for Site and Facility, under the provisions at RSA 162-H:16, IV(b).

F. THE CFA USE PROPOSED BY THE APPLICANTS IS NOT ENCAPSULATED USE

The Applicants have suggested at various points in the proceedings under this docket that the CFA they intend to use would be encapsulated. This is a term used by USEPA, to differentiate between two types of CFA; encapsulated CFA, which poses a relatively low potential for leaching of toxic heavy metals, and unencapsulated CFA, which poses a high potential for

²⁹ APOBP 85 USDA NRCS. Conservation Plan Map. Planned irrigation infrastructure including shallow well near planned HDD site. (Map showing Franconia Farms)

³⁰ APOBP 86 Exception Request No 115 (Submission by Applicant to NHDOT)

leaching of heavy metals, as previously shown. By claiming that the proposed CFA use is encapsulated use, the applicants hope to assuage concerns regarding leaching of heavy metals from their proposed trenches, and contamination of groundwater.

The CFA use proposed by the applicants is by definition not encapsulated use. USEPA defines encapsulated use as:³¹

- “Filler or lightweight aggregate in concrete
- A replacement for, or raw material used in production of, cementitious components in concrete or bricks
- Filler in plastics, rubber, and similar products
- Raw material in wallboard production.”

In other words, encapsulated use involves incorporating CFA into a solid, rock-hard, non-porous substrate such as a cement brick, a plastic or rubber product, or wallboard.

Under the applicants’ proposal, CFA would be placed in the earth as a component of fluidized thermal backfill (FTB), which has been described by Eversource engineers as a: “low-strength, hand-excavatable [i.e., not solid] material. FTB is water permeable similar to DOT gravels, does not create water dams, and behaves as a ‘French drain’ in poor soils.” (statement of Eversource engineer to NHDOT)³². Hence, the use of CFA proposed by the applicants is by definition unencapsulated use.

The Applicants have filed two exhibits showing that CFA is used in various states as a

³¹ USEPA: Frequent Questions about the Beneficial Use of Coal Ash <https://www.epa.gov/coalash/frequent-questions-about-beneficial-use-coal-ash>; 01/11/2018

³² APOBP 63 State of NH DOT Bureau of Highway Design. 10/05/2016. Conference Report on Northern Pass Project Sept 27, 2016 meeting.

construction material³³, and has been approved by the NHDOT as a construction material³⁴. However, those exhibits refer to the use of CFA in “structural concrete or concrete pavements”³⁵, or in “concrete”³⁶, which are encapsulated uses. The Applicants have failed to demonstrate that unencapsulated CFA has ever been used safely and without the leaching of heavy metals, particularly at the enormous scale or in the type of application (i.e., partially submerged in the aquifer) proposed for this project.

The applicants have failed to prove by a preponderance of evidence that the proposed unencapsulated use of CFA would not have an unreasonable adverse effect on water quality, the natural environment, and public health and safety. The proposed use of CFA therefore renders the proposed project unapprovable under the provisions of RSA 162-H:16, IV(c).

V. THE PROPOSED HIGH-VOLTAGE TRANSMISSION LINE IS IN CLOSE PROXIMITY TO HOMES AND WELLS

(Site 301.14 (f) (4) Proximity and Site 301.16 (j) Public Health and Safety)

- As shown in the video accompanying APOBP’s pre-filed testimony, on an 8-mile portion of the proposed underground route through Franconia and Easton, there are more than 40 homes in close proximity to the road. These homes average a distance of 29 feet from the pavement, the Applicants’ originally proposed site for the buried lines. The

³³ APP EX 159

³⁴ APP EX 160

³⁵ APP EX 159

³⁶ APP EX 160

“iterative” nature of the Company’s planning for this route has apparently moved this project out from under the pavement and even closer to these homes.

- The owners of the homes shown in this video oppose the project. Concerns include: construction damage to wells, contamination of water, damage to stone foundations especially in homes dating from the 1800s, and permanent removal of roadside vegetation affecting the curb-appeal of homes (and therefore their value) and affecting the character of these communities.
- Further, note that Hydro-Quebec in its brochure about the Northern Pass³⁷ says it “avoid(s) siting near homes as much as possible”. APOBP would urge Eversource to do the same.

VI. PROPOSED TRANSMISSION LINE CREATES UNDUE INTERFERENCE WITH ORDERLY DEVELOPMENT

(Site 301.15 Finding of Undue Interference)

- Mr. Varney stated³⁸ that the buried NP line would have no effect on Orderly Development because it would not result in a change of land use on abutting properties, nor would it adversely affect the economy and jobs.

³⁷ Exhibit APOBP 12 “Hydro-Quebec TransEnergie – Quebec-New Hampshire Interconnection”, p. 2.

³⁸ See Tr. 9/21/17 (AM), pp. 13-14

- Installation of transmission lines on state roads does indeed constitute a change of use even if distribution lines are already there. Saying there's no difference between electric distribution and transmission lines is like not seeing the difference between a gas station and a petroleum pipeline. The distribution lines and poles bring needed power, phone, and internet to local neighborhoods. They add value to a neighborhood that previously had no power. It makes sense that they would be welcomed to occupy the roadside ROW free-of-charge for the services they provide. The transmission lines, however, bring no value to the neighborhood; in fact they are a billion-watt albatross, disrupting future land use, and depressing property values.
- It is also erroneous to assert that there would be no adverse effect upon the economy in the area. Consider, for example, APOBP intervener Peter Grote's experience regarding the sale of a plot of land abutting Rt. 116 in Franconia.³⁹ The potential buyer did not want to purchase land that might include the buried billion-watt NP line because he did not want to have his children playing near the line. Such refusals, whether founded in scientific evidence or not, will drive down property values and adversely affect the economics of the region.
- Also take note of the number of towns still rebuffing overtures from NP despite the relatively high property tax payments offered by the Applicant. The judgment of these towns must be that the NP as proposed would have such an adverse effect

³⁹ Exhibit APOBP 10 Supplemental Pre-filed Testimony of Peter Grote, May 19, 2016.

on property values and also economics (like tourism) in the towns, that these towns rebuff even hundreds of thousands of dollars per town in annual NP payments.

VII. THE APPLICANT LACKS PROPERTY RIGHTS AND SEEKS UNPRECEDENTED USE OF STATE ROADS AS INDUSTRIAL CORRIDORS

(Site 301.16 Public Interest and Private Property)

- The Applicant has no property rights. The Applicant holds no easements or ROW along Rt. 116. It plans to build this project within the DOT ROW based solely on the **sufferance** of the DOT.⁴⁰
- Landowners along Rt. 116 had no idea that their land could be encumbered in this way. They did not buy land with a transmission line easement on it. They assert that property values will fall if this “easement” is effectively granted to NP.
Road frontage property throughout New Hampshire could likewise decline in value when the market realizes that all state roads in NH are possible transmission line corridors.
- The State prohibits the use of eminent domain in siting of a non-reliability project like Northern Pass. Yet the Applicant proposes to take land without the

⁴⁰ See Tr. 9/26/17 (AM), p.35-38, Mr. Oldenburg interviewing Mr. Varney

landowners' permission and without compensation – an outcome that for property-owners is worse than under eminent domain – and an outcome that clearly conflicts with the intention of the State.

- The Applicant has acknowledged the perverse condition that if the Company wanted a 20-foot strip of land perpendicular to Rt. 116, say running along the fence line between neighboring properties, they would have to negotiate a deal with the landowner, offering adequate compensation to induce the owner to grant the easement or sell the land. But if a 20-foot swath is taken along the road, the Company asserts that it can take it for free, without landowner consent.⁴¹
- Mr. Bowes acknowledged during that same discussion that there is nothing different about Routes 116 and 112; that this same placement of a transmission line could occur down any state road in NH. **This opens any road in the state to becoming a transmission line corridor, in stark contrast to the state legislature's expressed intent that the interstates, like I-93, be used as energy corridors.**

⁴¹ See transcript 4/17/17 (PM), p.30-32. Mr. Bowes

VIII. PROPOSED BENEFITS OF NEW HAMPSHIRE FORWARD FUND DO NOT OFFSET NEGATIVE IMPACTS ON ORDERLY DEVELOPMENT AND REGIONAL ECONOMIC GROWTH.

In his May 26, 2016 Order⁴² the Presiding Officer stated that the Subcommittee must consider “benefits offered by the developer for the purpose of mitigating or offsetting negative impacts.” The Applicant has described the proposed 192-mile transmission line as the “enabling element” for the Forward New Hampshire Fund, a “\$200 million (\$10 million a year for 20 years) fund targeted to support community betterment, clean energy innovation, economic development and tourism with emphasis on the host communities, and in particular, host communities in the North Country.”⁴³ Even as a mitigation measure, the Forward New Hampshire Fund falls short. Over 30 host communities along the route, have determined that the negative impact of the proposed project on their local economies, public safety and health, and orderly development far outweigh mitigation levels potentially afforded by the Forward New Hampshire Fund.⁴⁴

A significant number of North Country and Lakes Region businesses have also voiced strong concern over the impact of the proposed facility on the regional economy and on orderly development⁴⁵.

⁴² Order on the Society for the Protection of New Hampshire Forests Prehearing Motion to Strike Portions of the Applicants’ Forward NH Plan

⁴³ Exhibit APP 5, p.6.

⁴⁴ Exhibit APP 1, Appendix 44.

⁴⁵ See Public Comment Hearing – Plymouth, 6-23-16, Andrew Smith (pp.71-73)

IX. ARGUMENT IN THE ALTERNATIVE: CONDITIONS REQUIRED

To be clear, APOBP strongly opposes approval of the application because of its unreasonable adverse effects as stated previously, and requests that the subcommittee deny certification outright.

However, APOBP recognizes that the subcommittee might disagree, and find that the application is approvable with conditions designed to address the issues of concern. In that event, in the alternative to its request for the subcommittee to deny the application, APOBP requests that any certificate granted for this project include the following conditions. Conditions precedent, meaning certification would not become effective until the conditions were satisfied:

1. The Applicants should not be permitted to site the proposed underground portion of the power line along NH Highways 18, 116, 112, or 3. The applicants should be compelled to identify a different route that completely avoids or greatly minimizes the unreasonable adverse effects described above. As stated previously, fully feasible alternative routes that would avoid most of the above-described unreasonable adverse effects are available (for example, the I-93 corridor). The Applicants must be compelled to modify their proposal to utilize one of these alternative routes for the underground portion of the project. This condition would greatly mitigate interference with the orderly development of the region associated with the underground portion of the project (as required under RSA 162-h:16, IV), and would mitigate the proposed project's unreasonable adverse effect on aesthetics, water quality, the natural environment, and public health and safety (as required under RSA 162-

H:16, IV(c)). This condition would also satisfy the requirement at RSA 162-H:16, IV that the Subcommittee consider available alternatives to the proposed project.

2. Under no circumstances should the applicants be permitted to use CFA in trench backfill material. The Applicants should be required to either:
 - backfill with the indigenous soil removed from the trench, using topsoil segregation and replacement of the subsoil then topsoil. This is the BMP identified in the EIS for this project⁴⁶, or
 - utilize Fluidized thermal backfill (FTB) or other backfill that does not contain CFA, or any leachable toxic material. FTB with the properties required by this project can be manufactured from clean sand, clean crushed stone, cement, and water, without CFA. This is in fact what the Applicants initially proposed to use, and stated unequivocally that they would use, during the pre-hearing public information period for this project⁴⁷. If the Applicants wish to use FTB, they must be required to use FTB devoid of CFA or any leachable toxic materials.
3. The applicant must be required to conduct leaching tests on any material they propose to use as trench backfill, other than the indigenous soil originally excavated from the trench. The

⁴⁶ Exhibit APOBP 62A U.S. Dept of Energy, Draft Environmental Impact Statement, Northern Pass, pp 4-91 – 4-92

⁴⁷ APOBP 75 SEC Transcript, Northern Pass Public Info Session Jan 21, 2016 Loon Mountain, Lincoln, pp. 91-92

leaching tests used should be EPA SW846 Method 1313-1316⁴⁸. The results of the leaching tests must show that no toxic substances are leached from the tested backfill material under conditions approximating the proposed application of the backfill material (including conditions involving permanent submersion in groundwater). The Applicants must be prohibited from using as backfill material any material that does not prove through the above leaching tests to be free of toxic substances in its leachate.

4. The Applicants must be prohibited from using as backfill any material that proves through the above leaching tests to have toxic substances in its leachate, in the following locations:
 - Adjacent to or within Prime Farmland, Farmland of Statewide Importance, and Farmland of Local Importance;
 - Over aquifers used as drinking water or agricultural water;
 - In any location where the power line trench extends downward to below the top of the shallow aquifer in high water season (i.e., where the backfill will be submerged in groundwater for any portion of the year);
 - Within any wellhead protection area or aquifer protection area;
 - Within the bounds of any organic farming operation; and
 - Within the bounds of Franconia Farms.

Conditions 2, 3, and 4 would greatly mitigate the proposed project's unreasonable adverse effect on water quality, the natural environment, and public health and safety (as required under RSA 162-H:16, IV(c)).

⁴⁸ APOBP 80 U.S. Environmental Protection Agency. Supporting and Related Material. Engineering and Environmental Guidance on the Beneficial Use of Coal Combustion Products in Engineered Structural Fill Projects.

5. Where the applicants propose to install the underground power line along State highways (i.e. NH Rtes. 302, 18, 116, 112, or 3), the applicants must be required to install the power lines under the paved portion of the road, and must not be permitted to install the power line under the shoulder of the highway, or in areas that are outside of the paved roadway. This condition would greatly mitigate interference with the orderly development of the region associated with the underground portion of the project (as required under RSA 162-h:16, IV), and would mitigate the proposed project's unreasonable adverse impact on the public interest (as required under SEC Rules Site 301.16), and in particular the project's unreasonable adverse effects on private property (as required under Site 301.16(b)) and aesthetics (as required under as required under Site 301.16(g)).
6. The Applicants must be required as a condition of any Certificate to adhere strictly to the promises and statements that the Applicants have made on the record or in the transcripts of the public information sessions of this docket regarding the project. Failure of the Applicants to adhere to any promise or statement must be deemed a default of the Certificate. Any party who suffers damage or loss as a result of such a failure on the part of the Applicants (aggrieved party) must be entitled to compensation from the Applicants in an amount that makes them whole for the damage or loss suffered.
7. As a condition of any certificate, the Applicants must be compelled to establish an arbitration process, using a fully independent arbiter, by which any aggrieved party can lodge claims against the Applicants for any damages suffered as a result of default by the Applicants on Certificate conditions. Aggrieved parties must not be required to hire lawyers and take the

Applicants to court in order to redress damages suffered. Rather, aggrieved parties must be provided an inexpensive, efficient, independent, fair arbitration process through which any damages or losses can be redressed.

8. Similarly, as a condition of any certificate, the Applicants must be required to reimburse business owners for lost business that can be shown to be caused by the proposed project.
9. The Applicants must be required to provide assistance to municipalities and other utility owners if future repairs or improvements are rendered more expensive due to the presence of the proposed power line. The Applicant must be required to reimburse property owners fully for any lost stone wall, well, or other structure, or any lost tree. Applicants must be required to make abutting landowners whole in the event of contamination by the project of ground water, surface water, vegetation, or soils.

Conditions 6 through 9 would greatly mitigate interference with the orderly development of the region associated with the project (as required under RSA 162-h:16, IV), and would mitigate the proposed project's unreasonable adverse impact on the public interest (as required under SEC Rules Site 301.16), and in particular the project's unreasonable adverse effects on private property (as required under Site 301.16(b)).

10. As a condition of any Certificate, the Applicants must be required to identify through legal survey procedures the borders of all highway easements along the proposed underground route.

11. As a condition of any Certificate, the Applicants must be prohibited from encroaching on private land without the permission of the landowner. Any instance of such encroachment must be defined as a default of the Certificate, and the aggrieved landowner must be entitled to compensation.

12. As a condition of the certificate, the Applicants must be permanently prohibited from using eminent domain in order to acquire rights to private land abutting the proposed power line route.

Conditions 10 through 12 would greatly mitigate the proposed project's unreasonable adverse impact on the public interest (as required under SEC Rules Site 301.16), and in particular the project's unreasonable adverse effects on private property (as required under Site 301.16(b)).

13. The Easton Conservation Commission provided evidence that geotechnical work crews did not adhere to best management practices.⁴⁹ For example, boring fluids were allowed to flow into adjacent bodies of water. Due to the high level of concern over the Applicant's inability to ensure that subcontractor crews adhere to best management practices and that the environment and waterways in the Easton Valley are protected, an independent observer should be required on site during all construction activities. Condition 13 would greatly mitigate negative impacts on private property as required under Site 301.16(b) and on air and water quality as required under Site 301.16(h).

⁴⁹ Exhibit JT MUNI 111, pp. 2-5.

X. CONCLUSION

Wherefore, in view of the foregoing arguments, the Abutting Property Owners - Bethlehem to Plymouth intervenor group (APOBP) respectfully request that the Subcommittee:

1. Deny the Applicants a Certificate of Site and Facility.
2. Or, in the alternative, require as a condition of any Certificate that the Applicants not locate the underground portion of the project along NH Routes 18, 116, 112 or 3, but instead identify a different route for the underground portion of the project.
3. Or, in the alternative, require as a condition of any Certificate that any underground power line installation on NH Routes 18, 116, 112 or 3 be located entirely under the paved portion of these roads, and
4. Prohibit the Applicants from placing backfill material that contains CFA, or any other material that is shown through standard leach tests to have toxic substances in its leachate, in underground transmission line trenches or vaults.

Respectfully Submitted




Dated: January 12, 2018

By: Walter A. Palmer
Spokesperson, Abutting Property
Owners, Bethlehem to Plymouth
Intervenor Group (APOBP)
34 Coppermine Road
Franconia, NH 03580
Wpalmer1@gmail.com

CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of January 2018, a copy of the foregoing was sent via e-mail to those named in the Service List of this Docket, and was sent to the Subcommittee via first-class mail.

A handwritten signature in black ink that reads "Walter A. Palmer". The signature is written in a cursive, flowing style.

Walter A. Palmer