

November 15, 2016

By E-Mail & U.S. Mail

Pamela G. Monroe, Administrator
New Hampshire Site Evaluation Committee (SEC)
21 South Fruit Street, Suite 10
Concord, NH 03301-2429
pamela.monroe@sec.nh.com

RE: 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

Dear Ms. Monroe:

Enclosed is the prefiled testimony of Robert J. Cote & Bruce A. Adami, intervenors of the Deerfield Abutting Property Owners' Group in the above-captioned proceeding.

Copies of the enclosure have been forwarded via e-mail to all parties on the enclosed Discovery Distribution List. Please note that due to the 30 MB file size of the attachments to our prefiled testimony, the attachments are being provided only to the SEC to be made publicly available via the SEC project web page.

Thank you.

Sincerely,

The block contains two handwritten signatures in blue ink. The top signature is for Robert Cote, and the bottom signature is for Bruce Adami. Both signatures are written in a cursive, flowing style.

Robert Cote
Bruce Adami
Deerfield Abutting Property Owners

Enclosure

cc: Distribution List via e-mail

**STATE OF NEW HAMPSHIRE
BEFORE THE
SITE EVALUATION COMMITTEE
Docket No. 2015-06**

**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 TO CONSTRUCT A NEW
HIGH VOLTAGE TRANSMISSION LINE AND RELATED FACILITIES IN
NEW HAMPSHIRE**

**PREFILED TESTIMONY OF
ROBERT J. COTE AND BRUCE A. ADAMI
DEERFIELD ABUTTERS**

NOVEMBER 15, 2016

1 **Please state your name and address.**

2 Robert J. Cote, and Bruce A. Adami, 32 Mountain Road, P.O. Bo 507, Deerfield, New
3 Hampshire 03037.

4

5 **Robert, what credentials and experience do you possess?**

6 First and foremost, we are landowners of our Deerfield property since 1994 (22 years)
7 over which the proposed transmission line will pass. We are committed to the well-being
8 of our planet and have fully put into practice what we “preach.” Our Deerfield home is
9 highly energy efficient, and is independent of the electrical grid. Our home’s only
10 external energy sources are propane for hot water and cooking and wood for heat when
11 passive solar does not meet the needs of our home. Our home has been featured in *New*
12 *Hampshire Home* magazine (Exhibit A).

13



14

15

16 Our experience indicates that substantial opportunities exist for residential energy usage
17 reduction. We are entirely “off-the-grid” and utilize approximately 5 KWh/day of

18 electricity, with about 100 gallons per year of propane for hot water and cooking, and two
19 cords of wood/year for supplemental heat. The home is a modern 2,800 square foot
20 living area residence with full amenities, without deprivation and minimal inconvenience
21 of life-style. We do not consider ourselves an example of what everyone should do – but
22 rather an example of the extent to which energy conservation measures remain significant
23 for adoption by New England in general.

24
25 **What additional credentials and experience do you possess?**

26 Robert is a licensed Professional Engineer in the State of New Hampshire since 1996,
27 practicing in the field of Environmental Engineering. Please reference Roberts résumé
28 attached as Exhibit B.

29
30 **What is the purpose of this testimony?**

31 We offer this testimony to explain why we, as members of the Deerfield Abutter's
32 Intervenor Group, oppose the application of Northern Pass Transmission, LLC and Public
33 Service Company of New Hampshire D/B/A Eversource Energy for a certificate of site
34 and facility to construct a new high voltage transmission line and related facilities in New
35 Hampshire (NP) before the Site Evaluation Committee.

36
37 **Do you believe Northern Pass will serve the interests of the public?**

38 No, we do not. This determination of unreasonableness is based on the following.
39 Complete burial of the NP project will add approximately 0.02¢ per kilowatt-hour (KWh)
40 to the cost of electricity for the New England region over the 40-year life expectancy of
41 the project. See attached Exhibit C for details of this simple economic analysis.

42
43 Another way to evaluate this is that the \$1,000,000,000 estimated incremental cost of
44 burial, over the 40-year life expectancy of the transmission line, is \$25,000,000 per year.
45 This incremental cost is insignificant compared to the average New England cost-benefit
46 of approximately \$800,000,000 per year (London Economics International Cost-Benefit
47 analysis).

By either economic evaluation, the burden placed on NH's aesthetic and natural environment is extremely significant and of great importance to the residents of NH, and for the long-term minimal additional cost to NE ratepayers, there can be no justification that the new transmission line is reasonable as proposed.

Why do you believe the economic benefits of this project are likely to be overstated?

The growth in alternative sources of electricity, especially "behind the meter" photovoltaics, is significantly underestimated by the data utilized by London Economics in its cost-benefit analysis of the project.

The ISO New England *Final 2016 Solar PV Forecast Details* is attached as an **Exhibit D**. Notably, it predicts (on slide 34) cumulative total MW installed capacities in 2025 of 79.3 MW for NH and 1,705 MW for MA.

However, installed PV in NH under the net metering program, which had been capped at 50 MW, with an increase to 100 MW in 2016, is already approaching the just-approved 100 MW cap. Additionally, the Solar Energy Industries Association projects that an additional 242 MW of solar capacity will be installed in NH over the next five years, while in MA 2,326 MW of additional capacity is expected (see Exhibit E, attached).

Since the Applicant's cost-benefit model is based on estimated PV growth far lower than these projections, the cost-benefit model should be re-run using PV growth curves in line with SEIA estimates, to confirm that an error in judgment does not significantly alter the outcome.

Additionally, for the Clean Energy RFP awarded in October 2016, adequate capacity was available from other New England-based renewable energy resources to satisfy the requirements of the RFP. One assumption of the Applicant's modeling is that other resources are not coming on line fast enough to depress demand in the Forward Capacity Market (FCM). However, the evidence indicates that locally-based suppliers to the renewable energy market can reduce demand in the FCM, and provide significant employment opportunities as well. See Exhibit F attached from the US Department of Energy regarding Energy Efficiency and Renewable Energy opportunities in NH.

If there is going to be a “cost” to the people of New Hampshire, such as the intangible cost of the degraded aesthetics, there are far better ways to invest in our economy and infrastructure.

How will Northern Pass personally affect the use and enjoyment of your home?

This project fundamentally conflicts with our vision of the proper stewardship of our property, as well as that of the community.



The simulated view overlooking the Cote/Adami property as depicted in the Draft EIS

How will Northern Pass affect the character of your community?

The rural character of Deerfield is a valued asset of the state. Deerfield has several roadways passing under the proposed NP transmission line from which extensive and unappealing views of the transmission line corridor are present.

These include the Route 43/107 underpass close to the Town center. The negative visual impact at this location is unacceptable (see my rendering of this crossing in the graphic to the right).

This particular segment of road is identified by the State of NH Department of Transportation (NHDOT) as part of the Merrimack Valley Region Bicycle Routes (https://www.nh.gov/dot/programs/bikeped/maps/documents/mv_map_200dpi.pdf - see Exhibit G) in addition to being traveled on a multiple times per day basis, hundreds of times per year by Deerfield and other area residents.

The proposed project also intersects this bicycle route on Mount Delight Road on the western edge of Deerfield.



Additionally, NHDOT on May 12, 2014, designated the **Upper Lamprey River Scenic Byway** with the following description: “This Scenic Byway is a 45-mile route that contains outstanding scenic vistas, natural resources, and historic villages that celebrate the scenic and cultural heritage of New England. Winding through the towns of Candia, Deerfield, and Northwood, it features panoramic views of the mountains to the north, farms and forests to the east and west, and historic and cultural relics at every corner.”

The **Upper Lamprey River Scenic Byway** follows along a section of Nottingham Road in Deerfield between Routes 107/43 and Deerfield Parade. The open areas along the higher elevations of this segment include vistas to the south where NP towers will be readily visible. The proposed NP line will also intersect the scenic byway on Church

Street in Deerfield. A copy of the NHDOT news release and the **Upper Lamprey River Scenic Byway** map are included as Exhibit H.

The Applicant's prefiled testimony failed to identify or characterize the aesthetic and visual impacts of these scenic resources.

Notwithstanding the above noted deficiencies with respect to "scenic resources" that the Applicant failed to address, reference is made to the following requirement:

Site 301.14 Criteria Relative to Findings of Unreasonable Adverse Effects

(a) In determining whether a proposed energy facility will have an unreasonable adverse effect on aesthetics, the committee shall consider:

(1) The existing character of the area of potential visual impact;

The Applicant's expert witness maintains that aesthetic evaluations pertain ONLY to "scenic resources" even under review and questioning during technical sessions. The regulatory citation above clearly does not limit consideration of aesthetic impacts to "scenic resources." In particular, areas in Deerfield and all along the NP corridor, with hundreds, if not thousands of exposures per year for area residents traveling under the transmission line locations or for local residents proximate to the transmission line with direct views from their homes or yards were completely ignored by the aesthetic evaluations. These cumulative visual impacts potentially have a significant impact to the "character of the area" and especially area residents and were completely ignored by the Applicant's facts presented to the SEC to date.

Robert, how well does the project comply with the requirements of the U.S. Environmental Agency (USEPA) Construction General Permit (CGP) for Stormwater Discharges?

I believe that the Applicant has a fundamental misunderstanding of several important requirements of the CGP based on discussions during the technical sessions. The CGP is a federal permit, and is not subject to limitations in scope through negotiations with the New Hampshire Department of Environmental Services (NHDES). In general, NHDES does not enforce permits of other agencies, either.

Stormwater from construction activity is regulated by USEPA under the general category of “*storm water discharge associated with industrial activity*” pursuant to Chapter 40 Code of Federal Regulations (CFR) 122.26(b)(14)(x):

40 CFR 122.26(b)(14) *Storm water discharge associated with industrial activity* means the discharge from **any conveyance** that is used for collecting and conveying stormwater...The following categories of facilities are considered to be engaging in “industrial activity” for purposes of paragraph (b)(14):...
...(x) **Construction activity** including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more.

“Point source” discharges associated with construction activity are required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage pursuant to the above and 40 CFR Part 122 defines a “point source” as:

...**any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel,** tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged.

I was able to speak by telephone with Thelma Murphy on September 23, 2016, USEPA Region 1 Stormwater Permits Coordinator. My question was regarding the definition of “discharge point” in the EPA *Construction General Permit for Stormwater Discharges* (CGP). It's a critical definition, since this is the point to which all limits and controls apply. I specifically told her that the case in question was a linear transmission line project, without giving further detail.

Thelma confirmed my understanding of the term “discharge point.” It pretty much means ANY channelized flow that leaves the site and enters surface water. Even ignoring minor runoff, this could involve hundreds of discharge points along the NP 192 mile project route, all of which are required to be identified, included in the permit application, and monitored, as well as being identified on site figures. The Applicant’s representatives appear to believe that only permanent structures at nine substations and transition stations are subject to the “discharge point” requirements. The USEPA program confuses this issue somewhat, by using the terms “point source,” “outfall,” and “discharge point” in different citations to mean substantially the same thing.

The *EPA Discharge Mapping Tool* further substantiates this concept and is provided as Exhibit I. It states: “During conditions that generate stormwater discharges from a point within a catchment, it is assumed that this discharge will eventually reach the water segment associated with the catchment.” Using this concept, any stormwater leaving the vicinity of the construction activity is assumed by EPA to reach surface water, whether it is directly or indirectly.

EPA’s objective in promulgating non-numeric effluent limits (Best Management Practices or controls) that apply to discharges from construction sites is to prevent the mobilization and discharge (from point sources) of sediment, turbidity, and other sediment-bound pollutants, such as metals and nutrients, and to prevent or minimize the exposure of stormwater to construction materials, debris, and other sources of pollutants on construction sites.

CGP Section 7.2.4 includes the requirement to map in its Stormwater Pollution Prevention Plan (SWPPP) all discharge point locations to surface waters or storm drains for the construction activities. The site map must also include locations of all stormwater control measures.

Since the major objective of this Clean Water Act program is to protect “waters of the United States” it is critical for the Applicant to identify all locations where stormwater from the construction activity is likely to enter waters of the United States. The CGP requires inspections of all discharge points weekly and within 24 hours of a storm event of 0.25 inches or greater. A major purpose of these inspections is to confirm that the BMPs are properly functioning to prevent surface water degradation so that the objectives of the permit are met. This cannot be achieved by limiting the Applicant’s interpretation of discharge points to the substations and transition stations.

Additionally, these SWPPP requirements provide property owners affected by the project, as well as interested members of the public where the project intersects with publicly accessible areas, with important information regarding the project, and a basis for reporting compliance concerns to USEPA. Additional information is presented in the attached Exhibit J entitled *Frequently Asked Questions on EPA’s NPDES 2012 Construction General Permit*.

241 Additionally, Appendix D of the CGP requires that the Applicant evaluate and determine
242 its eligibility for permit coverage under one of the criteria in Appendix D with respect to
243 the protection of federally listed threatened or endangered species and federally
244 designated “critical habitat” [hereinafter “threatened and endangered species”] under the
245 Endangered Species Act (ESA) from discharges and discharge-related activities.

246
247 With respect to the CGP’s Appendix D *Endangered Species Act Eligibility Criteria*, the
248 CGP requires that:

249 You must certify in your NOI that you meet one of the eligibility criteria listed below in order to be
250 eligible for coverage under this permit. You must also specify in the NOI the basis for your selection
251 of the applicable eligibility criterion.

252 Note: (1) Regardless of the criterion selected, you must provide documentation in your SWPPP that is
253 sufficient to support your determination that you satisfy the requirements of the particular criterion.

254
255 The draft SWPPP does not currently contain the above-required documentation.

256
257 There are six criteria listed, each with specific evaluations that must be completed, and all
258 of them are dependent of the definition of an “action area,” which is provided below:

259
260 “Action Area” – all areas to be affected directly or indirectly by the federal action and not merely the
261 immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for
262 application of the Endangered Species Act requirements, the following areas are included in the
263 definition of action area:

264 • The areas on the construction site where stormwater discharges originate and flow toward the
265 point of discharge into the receiving waters (including areas where excavation, site development, or
266 other ground disturbance activities occur) and the immediate vicinity. (Example: Where bald eagles
267 nest in a tree that is on or bordering a construction site and could be disturbed by the construction
268 activity or where grading causes stormwater to flow into a small wetland or other habitat that is on the
269 site that contains listed species.)

270 • The areas where stormwater discharges flow from the construction site to the point of discharge
271 into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to
272 receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or
273 gully.)

274 • The areas where stormwater from construction activities discharge into receiving waters and the
275 areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from

construction activities discharges into a stream segment that is known to harbor listed aquatic species.)

- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)

- The areas upstream and/or downstream from the stormwater discharge into a stream segment that may be affected by these discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

During the technical sessions, the Applicant's representatives appeared to be unfamiliar with this obligation and have not identified action areas or the specific criterion under which it is eligible for coverage under the CGP with respect to threatened and endangered species.

Appendix G of the CGP provides approximately 24 pages of requirements for construction activity occurring within 50 feet of waters of the United States. The applicant is required to document in its SWPPP the natural buffer width that is retained. Otherwise, it must document the reduced width of the buffer that will be retained (and it must also describe the erosion and sediment controls will be used to achieve an equivalent sediment reduction). The applicant must also show all buffers on the site map in the SWPPP. Additionally, if any disturbances occur within the buffer area, they must document this in the SWPPP. Currently, the SWPPP does not address these substantive requirements.

Appendix J – CGP Notice of Intent (NOI) Form and Instructions – Requires that the applicant identify all the outfalls from the site that discharge stormwater and/or authorized non-stormwater. Each outfall must be assigned a unique 3-digit ID (e.g., 001, 002, 003). The applicant must also provide the latitude and longitude for each outfall. For each unique outfall, the applicant must specify the name of the first water of the U.S. that receives stormwater directly from the outfall and/or from the MS4 that the outfall discharges to.

The CGP is due for reissuance in 2017, and a draft version of the permit was proposed April 11, 2016. The current CGP expires February 16, 2017. It is my experience based on prior general permit reissuance, that the final 2017 CGP will be substantially similar

311 to the draft 2017 CGP, and therefore the draft 2017 CGP and Fact Sheet are attached as
312 Exhibit K for further reference in this docket with respect to the above-noted concerns.

313 **Does the Deerfield substation have a site-specific oil Spill Prevention, Control and**
314 **Countermeasures (SPCC) Plan as stated in the testimony of Jacob Tinus?**

315 No. It was not provided with the 401 Water Quality Certification, as stated in the Jacob
316 Tinus testimony. Assuming this was an oversight, it was informally requested during the
317 technical sessions, and a “boilerplate” non-site-specific procedure describing how an
318 SPCC Plan should be prepared was provided.

319
320 Transformers and other electrical devices can contain 500 gallons or more of oil subject
321 to federal and state regulatory oil spill prevention programs. In addition, containment
322 systems, especially any that are exposed to weather, will accumulate precipitation
323 requiring periodic draining. Both the spill containment measures and control of any
324 discharged stormwater accumulations to adjacent surface waters are important to define,
325 which has not been completed at this time.

326
327 The substation and converter station will also be subject to the NH Aboveground Storage
328 Tank regulations of Env-Or 300 if any device contains greater than 660 gallons of oil.
329 The Applicant is not currently aware if it will be subject to this program.

330
331 **CONCLUSION**

332 In this testimony we have outlined the negative impacts NP will have on our community
333 and on us personally, as well as reasons the project is not needed. We have cited specific
334 examples of environmental obligations of which NP seems to be unaware. The economic
335 and environmental benefits of other energy options are noteworthy, and do not impose
336 the many negative aspects of NP on the people of New Hampshire. We look forward to
337 the Committee’s careful review of the Project, its impacts, and all appropriate concerns
338 under the provisions of RSA 162-H.