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OFFICE OF THE
REGIONAL ADMINISTRATOR

October 16, 2014

Brian Mills
Office of Electricity Delivery and Energy Reliability, OE-20
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

RE: EPA NEPA Scoping Comments for the New England Clean Power Link Project in Vermont

Dear Mr. Mills:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we submit the following comments as part of the Department of Energy (DOE) NEPA scoping process for the New England Clean Power Link Project proposed by TDI-New England (TDI-NE) in Vermont.

Our comments are based on information provided in DOE's August 26, 2014 Notice of Intent (NOI) document for the project and information contained in the May 20, 2014 TDI-NE application for a Presidential Permit for the Clean Power Link HVDC Transmission Project. According to this information the objective of the project is to deliver renewable power from Quebec, Canada into Vermont (and ISO-NE) through a new 154-mile 1000 MW high-voltage electric power transmission system. The proposed transmission system will have two cables that will run from Quebec to an HVDC converter station in Ludlow, VT. Approximately 98-miles (or 60 percent) of the alignment will be installed in Lake Champlain (beneath, or in deeper segments on top of the lake bed) with the balance of the alignment over land generally following exiting roadway right-of-way alignments. The applicant proposes to have the project in service by 2019.

The construction and operation of the project could result in range of direct, indirect and cumulative impacts to resources that are within EPA's jurisdiction and expertise. Based on our review of the project information available, we believe the NOI has identified many of the environmental concerns that should be fully examined in the EIS. We are concerned about impacts during construction and operation of the project to wetlands, water quality, drinking water, and air quality. Our detailed comments on these issues and project alternatives are attached.

EPA acknowledges the potential air quality benefits for New England associated with increased use of imported renewable energy and the role the project could play in providing additional

capacity to deliver that energy. We encourage the DOE to develop an EIS for the project that addresses the environmental issues articulated in this letter and the NOI.

Thank you for the opportunity to provide scoping comments on the New England Clean Power Link Project EIS. We look forward to serving as a cooperating agency for the purposes of preparing the EIS, and in that role review draft documents and attend coordination meetings as appropriate and as resources permit. We believe the issues we have identified can be fully addressed in the EIS and we are willing to work with your agency to develop a strategy to achieve that goal. Should you have any questions or wish to discuss our concerns, please contact me at 617/918-1025.

Sincerely,

Timothy L. Timmermann
Associate Director, Office of Environmental Review

Attachment

Detailed Scoping Comments for the New England Clean Power Link Project

Alternatives

EPA supports the overland routing approach for the project adjacent to and within existing transportation corridor right-of-way (ROW) alignments. This approach is logical and should result in reduced project impacts in areas already maintained in existing ROW areas. Even with reduced impacts, proper mitigation to address impacts from project construction and operation will be an important part of the project design.

The 100 miles of the project proposed within Lake Champlain appears to be designed to avoid impacts to shallow water areas. We support the use of horizontal directional drilling (HDD) to achieve that objective. However, one over-riding question presented by the TDI-NE Presidential Permit application that should be addressed in the EIS is whether an alternative can be implemented that would co-locate part of the New England Clean Power Link Project and the Champlain Hudson Express project proposed by the same applicant. Co-locating the cables could provide an opportunity to minimize potential environmental harm in Lake Champlain through potential efficiencies gained during project construction. The TDI-NE application for a Presidential Permit (Section 4) does not reference the planned Champlain Hudson Express project and potential ways to connect that project with the New England Clean Power Link Project. While it is clear that the two projects are meant to serve independent energy markets, an analysis of an alternative to co-locate the cables as they pass through Lake Champlain should be provided in the EIS.

We also note that during the public forum in Burlington on September 16, 2014, TDI-NE representatives stated that one of the reasons that the Champlain Hudson Express electrical transmission line should not be co-located with the New England Clean Power Link transmission line was that the co-location of the cables would cause electrical transmission inefficiencies. The EIS should discuss why it is believed that the co-location of four appropriately spaced cables from the two projects combined in the same trench would cause negative environmental and transmission impacts. Another reason provided by TDI-NE for not having the routes co-located was reliability, noting concerns that if the cables from both lines were damaged at the same time, it would create a serious problem to the overall electric transmission system. Consistent with the first comment above, the EIS should discuss this issue in greater detail in light of the fact that these projects will be serving different energy grids.

Water Supply/Water Resources

The EIS should thoroughly describe the types and locations of current surface and ground water supplies (including both public and private water supplies) along the proposed project route. We also recommend that the EIS show the proximity of the project to any existing or potential future groundwater and/or surface water source protection areas, such as source water protection areas, wellhead protection areas, watershed protection areas, sole source aquifers and areas served by private wells.

To protect Vermont ground water and surface water sources, project protocols should require the applicant to contact the Vermont Department of Environmental Conservation, Drinking Water and Ground Water Protection Division, to identify all drinking water infrastructure, sources and protection areas that could potentially be affected during construction, operation, and maintenance of the proposed electric transmission line. The EIS should provide information to describe all project activities with the potential to contaminate drinking water sources due to spills during construction (e.g. fuel or hydraulic fluids) or with the potential to damage drinking water infrastructure (e.g. water mains). Information presented in the EIS should be coordinated as appropriate with state environmental agencies, towns, and public and private water systems during the development of the EIS and later for review and concurrence as part of the project approval process. The EIS should describe how the proposed project would meet state regulations, and any state guidance for protection of surface and ground drinking water supplies.

If portions of the project or associated infrastructure are proposed to cross over or overlie any existing or potential future ground water and/or surface water protection areas, the EIS should provide a map illustrating the water supply protection area and the source location(s). The EIS should describe what impacts, if any, can be expected to these water supply protection areas and sources as a result of construction and operation of the project. It should also include the location of nearby private wells and potential impacts from the proposed activities on the quality and quantity or water of those wells. In addition to reporting on project coordination with relevant agencies described above, the EIS should include a description of measures to be used to avoid or minimize all impacts. Any Spill Prevention, Containment and Countermeasure Plans (SPCC) should include provisions for notification of public water suppliers in the event of a spill during construction or operation of the project. The EIS should also describe existing and proposed activities which occur in drinking water source protection areas, the distance between the proposed activities and those sources and any existing local land use restrictions (health regulations, watershed protection bylaws, etc.) in place for the protection of those water sources.

Lake Champlain

Background

Lake Champlain was designated as a resource of national significance by the Lake Champlain Special Designation Act (Public Law 101-596) that was signed into law on November 5, 1990, (amended in 2002). A management plan for the watershed, "Opportunities for Action," (revised 2010) was developed to achieve the goal of the Act: to bring together people with diverse interests in the lake to create a comprehensive pollution prevention, control, and restoration plan for protecting the future of the Lake Champlain Basin.

EPA's efforts to protect Lake Champlain support the successful interstate, interagency, and international partnerships undertaking the implementation of the Plan. "Opportunities for Action" addresses various threats to Lake Champlain's water quality, including phosphorus loadings, invasive species, and toxic substances. The goals of Opportunities for Action include, but are not limited to:

- Reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of Lake Champlain;

- Reduce contaminants posing risks to public health and the Lake Champlain ecosystem;
- Maintain resilient and diverse communities of fish, wildlife, and plants;
- Prevent the introduction, limit the spread, and control the impact of non-native aquatic invasive species to preserve the integrity of the Lake Champlain ecosystem;
- Identify potential changes in climate and develop appropriate adaptation strategies to minimize adverse impacts on Lake Champlain's ecosystem and socioeconomic resources; and
- Promote healthy and diverse economic activity and sustainable development principles while improving water quality and conserving natural and cultural heritage resources.

Sediments and Water Quality

Excess phosphorous from a variety of sources has impaired the water quality of Lake Champlain. In 2002, Vermont prepared a plan to reduce phosphorous loadings by developing a Total Maximum Daily Load (TMDL). A TMDL places a cap on the maximum amount of phosphorous that is allowed to enter the Lake and still meet Vermont's water quality standards. EPA disapproved the Vermont 2002 Lake Champlain Phosphorus TMDL because it did not provide sufficient assurance that phosphorus reductions from polluted runoff would be achieved, and did not provide an adequate margin of safety to account for uncertainty in the analysis. EPA is now working to prepare a new phosphorus TMDL, and expects to complete it in late spring, 2015. Because phosphorus is found in Lake Champlain sediment, re-suspension of the sediments due to project construction is also of concern.

The EIS should consider the potential effects that construction could have on the availability of phosphorus and the resulting potential to cause algae blooms. In particular, the EIS should consider the location and timing of the construction. For instance, construction should be avoided during mid- to late-summer in areas that either experience, or could potentially experience algae blooms. Construction methods to minimize sediment re-suspension need to be considered and discussed in the EIS.

The TDI-NE application summarizes the Lake Champlain Sediment Toxics Assessment Program studies, which document the presence of various contaminants, including metals, pesticides and PCBs. The EIS should discuss how sediments will be tested for contaminants and how the results will affect the disposal methods and options and mitigation for potential impacts. In particular the EIS should address any circumstances under which contaminated soils, even low level contaminated soils, will be used to backfill trenched areas. EPA is willing to assist the DOE with the consideration of these water quality issues.

Air Quality

The State of Vermont is attainment for all National Ambient Air Quality Standards, hence general conformity and transportation conformity are not currently applicable to the New England Clean Power Link Project. Our primary air quality concern for the project is related to minimizing construction period emissions through reduced idling, prioritizing the use of new construction equipment with latest emission standards and the use of retrofit emission reduction devices on older construction equipment. We encourage DOE to specifically address minimizing construction emissions from marine vessels (i.e., cable-laying vessel, barges, construction platforms) and equipment used in installing the transmission line under Lake

Champlain, as well as on-road and non-road construction equipment used in burying the overland portion of the project. EPA would like to see the EIS and DOE Record of Decision commit to implementing measures during construction to help reduce and minimize air quality impacts from the construction phase of the proposed project.

These measures could include adding contract specifications that would require construction vehicles and equipment to include retrofit control equipment (oxidation catalysts or particulate filters installed on the exhaust of the diesel engine). The Northeast Diesel Collaborative has prepared model construction specifications which could be used in developing contract specifications for construction of the transmission line. The model construction specifications can be found on the Northeast Diesel Collaborative web site at URL address http://northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf.

We also recommend that the EIS address the sources of electric power that will be imported by the proposed project along with a characterization of whether/how the project will impact air and water emissions from the electric sector in the New England power pool. In particular, given the existing and proposed Federal and state rules around greenhouse gas emissions and other air pollutants from the power sector, it would be helpful if the EIS provides information to assess the sources of the electricity to be imported, and characterizes the emissions profile of that electricity as compared to the electricity it would likely displace from the New England power grid.

Wetlands

The TDI-NE application for a Presidential Permit provides a good basis to understand the potential for wetland impacts associated with the project. Our comments below provide guidance to the DOE to help scope the analysis of wetland issues in the EIS.

The EIS should provide a detailed description of the wetlands/water bodies and vernal pools along the route that includes their location as well as an assessment of their functions and values.[1] The EIS should also describe the portions of the construction work that will involve discharging dredged or fill material in wetlands or other waters of the United States that will be subject to the permit requirements of Section 404 of the Clean Water Act. Discharge activities must comply with EPA regulations issued under Section 404 (b) (1), referred to as EPA's 404 Guidelines (40 CFR Part 230), which require the following: that there be no less environmentally damaging practicable alternative to the proposed action; that the activity not cause or contribute to violations of state water quality standards or jeopardize endangered or threatened species; that the activity not cause or contribute to significant degradation of waters of the United States; and that all practicable and appropriate steps be taken to minimize potential adverse impacts to the aquatic ecosystem (Section 230.10). The guidelines further establish a presumption, which the applicant has an opportunity to rebut, that for projects that are not water-dependent, a practicable

[1] We recommend that the wetland assessment be prepared in a manner consistent with the Army Corps of Engineers New England District (formerly the New England Division) descriptive approach to wetland assessment as presented in The Highway Methodology Workbook Supplement Wetland Functions and Values, A Descriptive Approach, NEDEP-360-1-30a, dated November 1995.

alternative to the filling of wetlands exists. The EIS should include an evaluation of ways in which each alternative alignment (or other project related infrastructure) can be designed/sited to avoid impacts to wetlands.

Unavoidable impacts to wetlands, surface water resources (impacts to rivers/streams quality and flow), and wildlife should be fully disclosed in the EIS. These impacts include but are not limited to: direct filling of wetland for construction and/or operation; temporary impacts to wetlands resulting from access to wetland areas for construction purposes; indirect impacts, such as clearing impacts resulting in a change (either permanent or temporary) of cover type within a wetland (e.g. converting a forested wetland to an emergent or scrub/shrub wetland); indirect impacts resulting from erosion or sedimentation into wetlands or waterbodies; and secondary impacts which can result from construction of the project (i.e. additional development induced by the development of the project). EPA recommends that the EIS identify appropriate options for compensatory mitigation for unavoidable direct and secondary aquatic impacts and impacts to state and federally listed endangered species. [2] For example, the document could discuss the potential use of the Vermont In-lieu fee program.

In addition, all construction practices which will be utilized to minimize impacts should be documented. Specifically, standard conditions to protect wetlands should be documented in addition to steps which may be taken to reduce impacts to particularly sensitive areas such as vernal pools. The EIS should also provide comprehensive information to expand upon the discussion provided in the TDI-NE application to explain how stream and river crossings will be conducted to avoid and minimize impacts. In addition, we recommend that the EIS:

- identify any wetlands along the route (either within the right-of-way or immediately adjacent to it) that support rare and exemplary natural communities. If any of these areas exist we recommend that the EIS describe specific mitigative measures to ensure that they will be protected from potential indirect and cumulative impacts. Even though the project is designed to use existing right-of-way areas, the EIS should clearly identify the locations of any required access roads, impacts to wetland areas and a description of how the wetland ecosystems will be protected from indirect impacts from these roads.

- describe the long-term right-of-way maintenance techniques planned for the project. The discussion should explain whether herbicides will be used and whether specific buffer zones will be established around wetlands where herbicide application would be prohibited. We recommend that the analysis be expanded to discuss the potential for the introduction of invasive species and methods to control their spread as a result of the project.

- include a comprehensive discussion of measures to further reduce impacts to water bodies and aquatic organisms along the project route including the use of HDD and time

[2] The US Army Corps of Engineers (Corps) New England District Compensatory Mitigation Guidance can be found at : **http://www.nae.usace.army.mil/Missions/Regulatory/Mitigation/CompensatoryMitigationGuidance.aspx.** Also, the EIS should describe how the project will be consistent with the Corps 2008 Mitigation Rule (also discussed in detail at the Corps website).

of year restrictions to control in-stream construction work periods. The EIS should also provide detailed contingency plans that fully describe the process that will be followed should the chosen construction technique prove unsuitable (for example, failure of HDD). The EIS should identify other potential construction techniques and associated approvals needed to comply with agreed-upon (and permitted) construction protocols.

→ include a discussion of increased temperatures in sediment and water directly above the proposed cables. The EIS should provide a discussion of the potential aquatic impacts from increased temperatures in sediment where heat from the cable could affect sensitive aquatic species. For example, the TDI-NE application (page 3-18) notes that that the overland segment of the cable route crosses perennial streams that are sizeable enough to contain various fish species and spawning fish. The analysis should consider areas where the cables pass near or through perennial streams, near vernal pools or shallow streams where containing the cable in a heat absorbing material may not be possible.

Construction Period Issues

Erosion/Sedimentation Control

The EIS should discuss measures to prevent erosion and sedimentation during construction for a range of conditions spanning normal precipitation levels to severe weather events.

Cable Burial

The TDI-NE application explains that in Lake Champlain cables will be buried in areas shallower than 150' or in areas where there is a conflict with other cables, etc. It is our understanding that the Champlain Hudson Express project is to be buried for its entire alignment in Lake Champlain. Because it is uncertain whether full burial will be required or necessary for the New England Clean Power Link Project, the EIS should describe the potential for impacts for both full and partial burial installation options across the range of potential impact areas including water quality, habitat disruption/loss, impacts to rare species, constructability, etc.

Construction Equipment

The EIS should describe differences in impacts associated with differing types of construction equipment. For example the TDI-NE application describes the potential use of cable barges and/or dynamically positioned cable ships (that do not require bottom anchoring and therefore reduce the potential for sediment re-suspension). The application also indicates that construction equipment is to be selected by the project contractor. Therefore we believe the EIS should describe the range of impacts that could occur during project construction associated with each construction approach. The analysis should also provide a detailed description of mitigation measures to address the range of impacts identified.

Stream crossings

We recommend that stream crossing techniques be described in detail in the EIS and that protocols be established for determining the technique to be utilized for each crossing. As noted above, the use of open cut construction techniques should include advance notification and be implemented with contingency plans to address severe weather events that could result in excessive erosion and sedimentation.

Horizontal Directional Drilling (HDD)
The TDI-NE application states that HDD will be used to install the transmission cables in transition areas between aquatic and terrestrial portions of the proposed route, and may also be used in limited situations to install cables under roadway or railway crossings where trenching is not possible, or under environmental sensitive areas such as lakes or rivers. We support the use of HDD to avoid sensitive areas. Given the potential environmental benefits of HDD, we recommend that the EIS include a description of the criteria that will be applied to determine if HDD should be applied to other areas where impacts could be avoided.

Revegetation
The TDI-NE application states that "[f]ollowing completion of the transmission cable installation, the excavated area will be backfilled, regraded and revegetated as necessary." The EIS should describe the criteria that will be used to determine whether regrading and revegetation will be deemed necessary.

Blasting
The EIS should discuss how the project will identify and monitor private and public groundwater wells in the area of the blasting activities and how well owners whose water quality or quantity may be adversely affected will be notified of blasting activities. It should also discuss the planned follow-up activities should harm to the wells occur.

Analysis of Indirect and Cumulative Impacts

The Council on Environmental Quality's (CEQ) NEPA regulations require EISs to evaluate growth-inducing changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems that result from the proposed action and alternatives. The regulations define indirect (sometimes called 'secondary') effects as those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." The regulations state that impacts include ecological, aesthetic, historical, cultural, economic, social, or health impacts, whether direct, indirect, or cumulative. The CEQ NEPA regulations define cumulative impacts as "...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." We are willing to assist DOE to develop a strategy to address the cumulative impacts of the proposed project.