
United States
Department of Energy

Office of Electricity Delivery and Energy Reliability
OE Docket No. PP-400

TDI-New England



Presidential Permit
No. PP-400

December 5, 2016

Presidential Permit

TDI-New England

Order No. PP-400

I. BACKGROUND

The Department of Energy (DOE) has the responsibility for implementing Executive Order (E.O.) 10,485, as amended by E.O. 12,038, which requires the issuance of a Presidential permit for the construction, operation, maintenance, or connection of electric transmission facilities at the United States international border.¹ DOE may issue such a permit if it determines that issuance of the permit is in the public interest and after obtaining favorable recommendations from the U.S. Departments of State and Defense.

On May 20, 2014, Champlain VT, LLC, doing business as TDI-New England (TDI-NE) filed an application with the Office of Electricity Delivery and Energy Reliability of the Department of Energy (DOE) for a Presidential permit. TDI-NE proposes to own, construct, and maintain the New England Clean Power Link Project (NECPL or Project), a 1000 megawatt (MW) bipolar, high voltage direct current (HVDC) electric transmission line with an operating voltage of +/- 300 to 320 kilovolts (kV). The Project would be constructed in both aquatic (underwater) and terrestrial (underground) environments. The project would originate at the 735 kV Monteregie Substation in Quebec, Canada and terminate at the Vermont Electric Power Company's (VELCO's) Coolidge 345 kV Substation in Vermont. The Project's proposed in-service date is January 2019.

TDI-NE has its principal place of business in Albany, New York. TDI-New England would own the section of the Project located within the United States and that section will be under the operational control of the Independent System Operator New England Inc. (ISO-NE) once the Project is in service.

DOE published a notice in the *Federal Register* on July 9, 2014 (79 Fed. Reg. 38869) inviting comments and motions to intervene. DOE received four motions to intervene, one of which was out of time.

II. DISCUSSION

In determining whether issuance of a Presidential permit is in the public interest, DOE as a policy considers the environmental impacts of the proposed Project, determines the Project's impact on electric reliability, and weighs any other factors that DOE may consider relevant to the public interest. When, as in this case, a separate reliability

¹ The authority to administer the International Electricity Regulatory Program through the regulation of electricity exports and the issuance of Presidential permits has been delegated to the Assistant Secretary for the Office of Electricity Delivery and Energy Reliability (OE), by Redelegation Order No. 00-006.05 issued on November 17, 2014.

analysis is conducted by an independent system operator (ISO), DOE's practice has been to review the ISO's analysis and make a determination as to the project's impact on reliability.

A. Reliability Analysis

DOE staff reviewed the ISO-NE's System Impact Study (SIS) - conducted by Siemens PTI - which included N-1 and N-1-1 steady state thermal and voltage contingency analyses performed on Year 2019 base cases. N-1 Stability Contingencies in Vermont, New Hampshire, west Massachusetts, and southern New England were tested in thirteen light load and two peak load cases. The lists of contingencies tested included Normal Contingencies, Extreme Contingencies, and Bulk Power System contingencies. Selected N-1-1 stability contingencies were tested on selected cases. Short circuit and Sub-synchronous torsional interaction (SSTI) screening studies were also performed.

In a letter to dated November 1, 2016, ISO-NE informed the VELCO and Eversource Energy that its review of the proposed plan applications related to NECPL identified no significant adverse effects. Specifically, the letter indicated that ISO-NE's Reliability Committee reviewed the application and did not identify a significant adverse effect on the reliability or operating characteristics of the transmission facilities of VELCO, Eversource Energy, an additional transmission owner, or the system of any other Market Participant.

However, the SIS also identified several upgrades required to be put in place prior to energizing the proposed transmission facilities. TDI-NE has entered into agreements with the affected utilities in Vermont wherein it agrees to perform these upgrades prior to energizing the proposed transmission facilities.

A detailed SSTI analysis will be performed in the design stage to address issues related to energizing the line and the upgrades required. Bilateral agreements between TDI-NE and any affected generation owners will specify issues to be addressed in the SSTI as well as the need for any possible mitigating measures, such as HVDC control system monitoring and HVDC auxiliary control/protective action or affected generator protection.

The required actions related to completing the confirming SSTI analysis, reaching agreement on the appropriate mitigating measures with each affected generator, and implementing any such mitigating measures will be included as milestones specified within the Elective Transmission Upgrade Interconnection Agreement for this Project.

B. Environmental Analysis

On August 26, 2014, DOE issued a Notice of Intent (79 Fed. Reg. 50901) to prepare an environmental impact statement (EIS) for the NECPL Project and to conduct Public Scoping Meetings. The Notice of Intent indicated that the NECPL Project would involve actions in floodplains and wetlands, which would be assessed in the EIS.

On June 12, 2015, DOE published a Notice of Availability of the Draft EIS (80 Fed. Reg. 33510) and held a 45-day public review period. DOE held two public hearings on the Draft EIS and received no oral comments on the Draft EIS. Throughout the EIS process, DOE worked with cooperating agencies to ensure that impacts will be appropriately addressed. DOE considered all comments received on the Draft EIS in the preparation of the Final EIS. DOE issued the Final EIS in October 2015. On November 6, 2015, the U.S. Environmental Protection Agency (EPA) published a Notice of Availability of the Final EIS (80 Fed. Reg. 68868).

C. Concurrences

On July 20, 2015, the Secretary of State concurred with the issuance of a Presidential Permit to TDI-New England for the New England Clean Power Link Project. On August 26, 2015, the Secretary of Defense concurred as well.

D. Public Comments

As noted above, when DOE issued the Notice of Application in the *Federal Register*, it received three motions to intervene in time. These were filed by the Northeast Power Coordinating Council, the Vermont Department of Public Service, and the Conservation Law Foundation. The Vermont Department of Public Service and the Conservation Law Foundation also filed comments. The Vermont Department of Public Service provided a summary of state-level review of the Project. The Conservation Law Foundation provided comments on the need to study impacts to the aquatic environment as well as other environmental and economic impacts of the Project, which were subsequently addressed in the EIS prepared for the Project. The Conservation Law Foundation suggested that DOE combine this docket's EIS with that prepared for OE Docket No. PP-371 because they concern projects in the same region (albeit different states), but that is not departmental practice and is impractical from a timing and resource perspective. Allco Renewable Energy Limited (Allco) filed a motion to intervene and comments on July 18, 2016, nearly two years after the close of the comment period on August 9, 2014, and without explanation for its untimely filing. Allco's comments concerned the EIS, which was subject to a separate public comment process that concluded in 2015.

III. FINDINGS AND DECISION

DOE denies Allco's motion and grants the motions to intervene of Northeast Power Coordinating Council, the Vermont Department of Public Service, and the Conservation Law Foundation.

Based upon a review of ISO-NE's analysis of the NECPL, DOE staff concurs in ISO-NE's conclusions and determines that the 1000 MW of incremental north-to-south transfer, which represents south-bound transmission service requests from Quebec to the United States, will not have a negative impact on the reliability of the United States electric grid if operated consistent with both ISO-NE and the North American Electric Reliability Corporation (NERC) policies and standards, terms and conditions of the

Presidential Permit, and other regulatory and statutory requirements. Authorization to operate a south-to-north transfer will require a separate Interconnection Request, a separate System Impact Study (SIS), and separate approval from ISO-NE. As such, this permit authorizes only the described north-to-south transfer.

In addition to DOE's reliability determination, based upon the results of the environmental analysis, concurrences of the Departments of State and Defense, and public comment process, DOE determines that the issuance of a Presidential permit to TDI-New England is consistent with the public interest.

IV. DATA COLLECTION AND REPORTING

The responsibility for the data collection and reporting under Presidential Permits authorizing electric transmission facilities at the U.S. international border and orders authorizing electricity exports to a foreign country has been transferred from the Office of Electricity Delivery & Energy Reliability to DOE's Energy Information Administration (EIA). TDI-New England is required to submit Form EIA-111 "Quarterly Electricity Imports and Exports Report," or any successor form, as specified by the EIA. TDI-New England is instructed to follow EIA instructions in utilizing the Data xChange Community Portal. Questions regarding the data collection and reporting requirements can be directed to the EIA by email at EIA4USA@eia.gov or by phone at 1-855-342-4872.

V. ORDER

Pursuant to the provisions of Executive Order 10,485, as amended by E.O. 12,038, and the regulations issued thereunder (Title 10, Code of Federal Regulations, Part 205), permission is granted to TDI-New England to construct, own, maintain, and connect electric transmission facilities at the international border of the United States and Canada, as further described in Article 2 below, upon the following conditions:

Article 1. The facilities herein described shall be subject to all conditions, provisions and requirements of this Permit. This Permit may be modified or revoked by the President of the United States without notice, or by DOE after notice, and may be amended by DOE after proper application thereto.

Article 2. The facilities covered by and subject to this Permit shall include the following facilities and all supporting structures within the right-of-way occupied by such facilities:

A high voltage direct current (HVDC) bipolar electric transmission line with an operating voltage of +/- 300 to 320 kilovolts (kV) which crosses the U.S.-Canada border underground in Alburgh, VT. From Alburgh, the line enters Lake Champlain via a horizontal directional drill. The cables emerge from Lake Champlain in the town of Benson, Vermont and are buried along town roads and state highway rights-of-way for approximately 55.7 miles until terminating at a proposed converter station in Ludlow, Vermont. The total direct current portion of

the Project is approximately 153.8 miles. In addition, a single circuit, 345kV alternating current transmission line running from the converter station in Ludlow approximately 0.3 miles to the Coolidge Substation in Cavendish.

Article 3. The facilities described in Article 2 above, shall be designed and operated in accordance with all policies and standards of the Federal Energy Regulatory Commission, NERC, Regional Entities, Reliability Coordinators, and independent system operators, or their successors, as appropriate, on such terms as expressed therein and as such criteria, standards, and guides may be amended from time to time.

Furthermore, the facilities described in Article 2 shall be operated in such a manner that the scheduled rate of transmission of electric energy north to south entering the United States over the facilities operated herein shall not exceed 1000 MW for both summer and winter periods into the Coolidge 345 kV substation in Vermont. The facilities are not approved for south-to-north transfer.

Article 4. No change shall be made in the facilities covered by this Permit or in the authorized operation or connection of these facilities unless such change has been approved by DOE.

Article 5. TDI-New England shall at all times maintain the facilities covered by this Permit in a satisfactory condition so that all requirements of the National Electric Safety Code in effect at the time of construction are fully met.

Article 6. The operation and maintenance of the facilities covered by this Permit shall be subject to the inspection and approval of a designated representative of DOE, who shall be an authorized representative of the United States for such purposes. TDI-New England shall allow officers or employees of the United States, with written authorization, free and unrestricted access into, through and across any lands occupied by these facilities in the performance of their duties.

Article 7. TDI-New England shall investigate any complaints from nearby residents of radio or television interference identifiably caused by the operation of the facilities covered by this Permit. TDI-New England shall take appropriate action as necessary to mitigate such situations. Complaints from individuals residing within one-half mile of the centerline of the transmission line must be resolved. TDI-New England shall maintain written records of all complaints received and of the corrective actions taken.

Article 8. The United States shall not be responsible or liable for damages of any kind which may arise from or be incident to the exercise of the privileges granted herein. TDI-New England shall hold the United States harmless from any and all such claims.

Article 9. TDI-New England shall arrange for the installation and maintenance of appropriate metering equipment to record permanently the hourly flow of all electric energy transmitted between the United States and Canada over the facilities authorized herein. TDI-New England shall make and preserve full and complete records with respect to the electric energy transactions between the United States and Canada. TDI-New

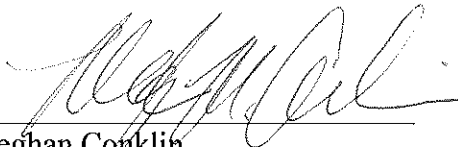
England shall collect and submit the data to EIA as required by and in accordance with the procedures of Form EIA-111, "Quarterly Electricity Imports and Exports Report" or its successor form.

Article 10. Neither this Permit nor the facilities covered by this Permit, or any part thereof, shall be transferable or assignable, unless specifically authorized by DOE in accordance with Title 10, Code of Federal Regulations.

Article 11. Upon the termination, revocation or surrender of this Permit, the permitted facilities which are owned, operated, maintained, and connected by TDI-New England and described in Article 2 of this Permit, shall be removed and the land restored to its original condition within such time as DOE may specify and at the expense of TDI-New England. If TDI-New England fails to remove such facilities and/or any portion thereof authorized by this Permit, DOE may direct that such actions be taken for the removal of the facilities or the restoration of the land associated with the facilities at the expense of TDI-New England. TDI-New England shall have no claim for damages by reason of such possession, removal or repair. However, if certain facilities authorized herein are useful for other utility operations within the bounds of the United States, DOE may not require that those facilities be removed and the land restored to its original condition upon termination of the international interconnection.

Article 12. TDI-New England has a continuing obligation to give DOE written notification as soon as practicable of any prospective or actual changes of a substantive nature in the circumstances upon which this Order was based, including but not limited to changes in authorized entity contact information.

Issued in Washington, D.C., on December 5, 2016.



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