
United States
Department of Energy

Office of Electricity Delivery and Energy Reliability
OE Docket No. PP-371

Northern Pass Transmission LLC



Presidential Permit
No. PP-371

November 16, 2017

Presidential Permit

Northern Pass Transmission LLC Order No. PP-371

I. BACKGROUND

The United States Department of Energy (DOE) has the responsibility for implementing Executive Order (E.O.) 10,485, as amended by E.O. 12,038, which delegates to DOE the authority to issue Presidential permits for the construction, operation, maintenance, or connection of electric transmission facilities at the United States international borders.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.

Northern Pass Transmission LLC (NPT) applied to DOE for a Presidential permit to construct, operate, maintain, and connect a High Voltage Direct Current (HVDC) transmission line across the U.S.-Canada border (the proposed Project) on October 14, 2010. On July 1, 2013, NPT submitted an amended Presidential permit application to DOE and a subsequent amendment was submitted on August 31, 2015. The amendments are discussed below.

In its July 2013 amended application, NPT proposed to construct and operate a primarily overhead HVDC electric transmission line originating at an HVDC converter station to be constructed at the Des Cantons Substation in Val-Joli, Québec, Canada. The transmission line would run across the international border to Franklin, New Hampshire, where the current would be converted from HVDC to alternating current (AC) and continue on to its southern terminus at the Deerfield Substation in Deerfield, New Hampshire. Under this application, the proposed facilities were to be capable of transmitting up to 1,200 MW of power.

Under the July 2013 amended application, the New Hampshire portion of the proposed Project was to consist of two segments. The first would be a single-circuit, 300-kilovolt (kV) HVDC transmission line running approximately 153 miles from the U.S. border crossing with Canada near Pittsburg, New Hampshire, to a new HVDC-to-AC transformer facility to be constructed in Franklin, New Hampshire. The second segment would be a 345-kV AC electric transmission line running approximate 34 miles from Franklin to the proposed Project's terminus at the Public Service Company of New Hampshire's existing Deerfield Substation in Deerfield, New Hampshire. The total length of the New Hampshire portion of the proposed Project would be approximately 187 miles.

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 by Redelegation Order No. 00-006.05, issued on November 17, 2014.

NPT's August 2015 application amendment changed the proposed transmission line route and configuration in the following manners:

- It added three miles of buried transmission line adjacent to an existing road;
- It added new, approximately one-acre transition stations in Bridgewater, New Hampshire and Bethlehem, New Hampshire, to transition the transmission line between aboveground and buried;
- It increased the amount of proposed buried transmission line for the total project from approximately eight miles to approximately 60 miles and increased the total proposed Project length from 187 miles to approximately 192 miles;
- It shifted the location of the international border crossing less than 100 feet;
- It reduced the proposed Project's potential transfer capability to 1,090 MW;
- It moved the proposed border crossing from Latitude 45.017820, Longitude -71.501217 to Latitude 45.017719, Longitude -71.500028;
- It changed the voltage for the HVDC section from $\pm 300\text{kV}$ to $\pm 320\text{kV}$; and
- It included design changes to the converter technology and type of cable.

DOE published notices of application in *The Federal Register* in 2010 and 2013, when the initial application and first amended application were filed. See 75 FR 69,990 (Nov. 16, 2010); and 78 FR 50,405 (Aug. 19, 2013). All persons who requested to intervene to become parties in the NPT application proceeding were permitted to do so. On January 27, 2011, DOE sent a letter to all interveners in the proceeding explaining that interveners' "party" status entitles them to receive notification of all documents submitted in the proceeding. Given the significant public interest and large number of interveners in the NPT proceeding, DOE established the Northern Pass EIS website, where it continues to make filed documents available and provides additional resources about the proceeding. Through this website, DOE announced the intent to grant all requests to intervene received by August 7, 2017, and DOE has done so.

II. DISCUSSION

In determining whether issuance of a Presidential permit is in the public interest, DOE assesses the potential environmental impacts of the proposed project, the potential impact of the proposed project on electric reliability, and any other factors that DOE considers relevant to the public interest. With regard to the reliability assessment, when, as in this case, a reliability 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 the reliability of the bulk electric system. In this case, the NPT project falls in the service territory of ISO New England (ISO-NE).

A. Reliability Analysis

The Department of Energy reviewed the System Impact Study (SIS) conducted by RLC Engineering, LLC (RLC) in accordance with ISO-NE Open Access Transmission Tariff Schedule 25. The SIS was performed on behalf of ISO-NE for an Elective Transmission Upgrade (ETU) QP499. The ETU is an interconnection of a bidirectional

±320 kV, symmetrical monopole HVDC line from the Des Cantons Substation in Québec to a new substation located in Franklin, New Hampshire. This Study analyzed the impact of New England importing 1,090 MW from Québec on the HVDC line, with the point of interconnection (POI) at the 345-kV Deerfield Substation. QP499 has a proposed in-service date of February 2019.

Based on DOE's review of the SIS, DOE agreed that the QP499 ETU Project, with all proposed upgrades when interconnected to the New England transmission system, will not have a significant adverse impact on the reliability, stability, and operating characteristics of the Transmission Owner's transmission facilities, the transmission facilities of another Transmission Owner, or the system of a Market Participant. Furthermore, both the New York ISO and PJM Interconnection have reviewed the test results and agreed that QP499 will have no significant adverse impact on their systems.

DOE published a "Notice of Availability for Public Comment of Interconnection Facilities Studies Summary Prepared for the Proposed Northern Pass Transmission Project" in the *Federal Register* on July 6, 2017 (82 FR 31,315) and made available a redacted summary of the QP499 report for public comment. No comments were received.

B. Environmental Analysis

On February 11, 2011, DOE issued a Notice of Intent (NOI) in the Federal Register (76 FR 7828) to prepare an EIS for the Northern Pass Project and conduct public scoping. Seven public scoping meetings were held March 14 through 20, 2011. On September 6, 2013, DOE issued an Amended NOI (78 FR 54,876) in which DOE announced its intention to modify the scope of the EIS (based on an amended application from NPT), to conduct additional public scoping meetings, and to end the previously indefinitely extended public scoping period. Four additional public scoping meetings were held September 23 through 26, 2013. The scoping period closed on November 5, 2013. During the entire scoping period, the DOE received 7,560 written and oral comments.

On July 31, 2015, the Environmental Protection Agency (EPA) issued a Notice of Availability (NOA) for the draft EIS in the Federal Register (80 FR 45,652), which began a 90-day public comment period. On September 30, 2015, following receipt of the August 2015 amended application from Northern Pass, DOE issued an NOI to Prepare a Supplement to the Draft Northern Pass EIS (80 FR 58,725), and extended the public comment period to December 31, 2015. EPA issued the NOA for the supplement to the draft EIS (80 FR 72,719) on November 20, 2015. DOE ultimately extended the public comment period for the draft EIS and the supplement to the draft EIS through April 4, 2016 (81 FR 5995). DOE held four public hearings on the draft EIS and the supplement to the draft EIS March 7 through 11, 2016. DOE received 1,037 comments on the draft EIS and the supplement to the draft EIS. The comments addressed the following topics such as: purpose and need, project objectives, alternatives, visual resources, socioeconomics, historic and cultural resources and the Section 106 process, water

resources, and the NEPA process. See Section 1.5.4.1 of the final EIS for additional information regarding these comments. DOE considered all comments received on the draft EIS and the supplement to the draft EIS in the preparation of the final EIS, including those received after the close of the public comment period. Comment letters and detailed responses are included in Appendix L of the final EIS. EPA issued a NOA for the final EIS on August 18, 2017 (82 FR 39,424).

DOE invited several federal and state agencies to participate in the preparation of the draft and final EIS as cooperating agencies² because of their special expertise or jurisdiction by law. The USFS – WMNF, EPA – Region 1, the U.S. Army Corps of Engineers (USACE) – New England Region, and the New Hampshire Office of Energy and Planning (NHOEP) participated as cooperating agencies in the preparation of the EIS. The WMNF Forest Supervisor will use the EIS to inform its decision regarding the Special Use Permit. In September 2017, the WMNF Forest Supervisor issued a draft ROD related to the Special Use Permit.

Concurrently with this Presidential permit, DOE is issuing a Record of Decision regarding its grant of the permit.

C. Concurrences

On May 24, 2016, the Department of State concurred with the issuance of a Presidential permit to NPT. On June 27, 2016, DOE received a concurrence from the Department of Defense.

III. FINDINGS AND DECISION

Based on its review of NPT's application, as well as the reliability studies conducted in accordance with ISO-NE, DOE finds that the proposed Project will not have negative effects on the reliability of the U.S. grid if operated consistent with NERC policies and standards, terms and conditions of the Presidential permit, and other regulatory and statutory requirements.

Based on DOE's reliability determination, the results of the environmental analysis, concurrences of the Departments of State and Defense, and the public comment process, DOE determines that the issuance of a Presidential permit to NPT is consistent with the public interest.

IV. DATA COLLECTION AND REPORTING

The responsibility for data collection and reporting under (1) Presidential permits authorizing electric transmission facilities at the U.S. international border and (2) orders authorizing electricity exports to a foreign country has been transferred from the Office

² For more information on cooperating agency requirements, see sections 101(a) and 102 of the National Environmental Policy Act (42 U.S.C. §§ 4331(a) and 4332) and the Council on Environmental Quality's implementing regulations at 40 C.F.R. §§ 1501.6 and 1508.5.

of Electricity Delivery & Energy Reliability to DOE's Energy Information Administration (EIA). NPT is required to submit Form EIA-111 ("Quarterly Electricity Imports and Exports Report") or any successor forms, as specified by the EIA. NPT 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. OPEN ACCESS POLICY

DOE expects owners and operators of border facilities to provide access across the border in accordance with the principles of comparable open access and non-discrimination contained in the Federal Power Act (FPA) and articulated in the Federal Energy Regulatory Commission's (FERC) Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities*, as amended.³ The actual rates, terms and conditions of transmission service should be consistent with the non-discrimination principles of the FPA and the transmitting utility's Open-Access Transmission Tariff on file with FERC.

The holder of this Presidential permit is required to conduct operations in accordance with the applicable principles of the FPA and any pertinent rules, regulations, directives, policy statements, and orders adopted or issued thereunder, which include the comparable open access provisions of FERC Order No. 888, as amended. Cross-border electric trade ought to be subject to the same principles of comparable open access and non-discrimination that apply to transmission in interstate commerce. *See Enron Power Mktg., Inc. v. El Paso Elec. Co.*, 77 FERC ¶ 61,013 (1996), *reh'g denied*, 83 FERC ¶ 61,213 (1998)). Thus, DOE expects owners of border facilities to comply with the same principles of comparable open access and non-discrimination that apply to the domestic, interstate transmission of electricity.

VI. ORDER

Pursuant to the provisions of E.O. 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 Northern Pass Transmission LLC 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.

³ 61 Fed. Reg. 21,540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000) (*TAPS v. FERC*), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

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:

An approximately 192 mile overhead and underground HVDC and AC transmission system crossing the international border at Pittsburg, New Hampshire. From the border, a single circuit, ± 320 kV HVDC line would terminate at a converter station to be constructed in Franklin, New Hampshire. The total length of the HVDC portion of the project would be 158.3 miles. From the Franklin converter station, an approximately 34 mile, 345-kV AC transmission line would continue on to the existing Deerfield Substation, where it will interconnect to the U.S. grid.

The facilities would cross the U.S. international border at Pittsburg, New Hampshire, at Latitude 45.017719 N (45 degrees 1 minute 3.8 seconds North), Longitude 71.500028 W (71 degrees 30 minutes 0.1 seconds West).

Article 3. The facilities described in Article 2 above shall be designed and operated in accordance with all policies and standards of FERC, NERC, NERC-delegated Regional Entities, Reliability Coordinators, and ISOs, 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. The facilities shall also be operated consistent with other regulatory and statutory requirements.

Furthermore, the facilities described in Article 2 shall be operated in such a manner that the scheduled rate of transmission of electric energy entering the United States over the facilities operated herein shall not exceed 1,090 MW.

Article 4. NPT shall implement the Project-specific mitigation and other measures contained in the Final *Environmental Impact Statement for the Northern Pass Transmission Line Project* (DOE/EIS-0463); the Record of Decision; the Programmatic Agreement executed, pursuant to Section 106 of the National Historic Preservation Act, between DOE, the New Hampshire and Vermont State Historic Preservation Officers, the Advisory Council on Historic Preservation, and NPT; and all requirements set forth in the Biological Opinion on the Northern Pass Transmission Line Project issued by the U.S. Fish and Wildlife Service.

Article 5. 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 6. NPT 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 7. 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. NPT

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 8. NPT shall investigate any complaints from nearby residents of radio or television interference identifiably caused by the operation of the facilities covered by this Permit. NPT 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. NPT shall maintain written records of all complaints received and of the corrective actions taken.

Article 9. 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. NPT shall hold the United States harmless from any and all such claims.

Article 10. NPT 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. NPT shall make and preserve full and complete records with respect to the electric energy transactions between the United States and Canada. NPT shall collect and submit the data to EIA as required by and in accordance with the procedures of Form EIA-111 and all successor forms.

Article 11. 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 12. Upon the termination, revocation, or surrender of this Permit, the permitted facilities owned, operated, maintained, and connected by NPT 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 NPT. If NPT 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 NPT. NPT 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 13. NPT 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 November 16, 2017.



Catherine Jereza
Deputy Assistant Secretary
Transmission Permitting and Technical Assistance Division
Office of Electricity Delivery and Energy Reliability