
United States
Department of Energy

Office of Electricity Delivery and Energy Reliability
OE Docket No. PP-435

Houlton Water Company



Presidential Permit
No. PP-435

November 17, 2017

Presidential Permit

Houlton Water Company Order No. PP-435

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.

On January 13, 2017, Houlton Water Company (Houlton Water) filed an application with DOE's Office of Electricity Delivery and Energy Reliability for a Presidential permit. Houlton Water has its principal place of business in Houlton, Maine. Houlton Water is the municipal utility owned by the Town of Houlton, Maine.

Houlton Water proposes to construct and operate the U.S. portion of the Houlton/New Brunswick Power Interconnection (the Project). In total, the Project would be an approximately 11.8-mile overhead transmission system originating at the Woodstock, New Brunswick substation in Canada and terminating in the Town of Houlton, Maine. From the Woodstock Substation, a 69-kV transmission line would run approximately 9.3 miles to a new substation, still on the Canadian side of the Canada/U.S. border. From that substation, a 38-kV line would run less than a mile, right up to the Canada/U.S. border. From the border crossing, a 1.5-mile, 38-kV transmission line would connect into the Houlton, Maine electric distribution system.

The U.S. portion of the proposed Project would cross the U.S.-Canada border near 46 degrees – 7 min – 58.16 sec N and 67 degrees – 46 min – 52.48 sec W. The Project would be operated in accordance with Reliability Standards developed by the North American Electric Reliability Corporation (NERC).²

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.

² The Federal Energy Regulatory Commission (FERC) certified NERC as the Electric Reliability Organization (ERO) responsible for developing and enforcing mandatory Reliability Standards. *See Order Certifying NERC as the Electric Reliability Organization and Ordering Compliance Filing*, 116 FERC ¶ 61,062 (July 20, 2006).

DOE published a notice in the *Federal Register* on April 3, 2017 (82 Fed. Reg. 16,177), inviting comments and motions to intervene. None were received.

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 the reliability of the U.S. electric grid, and weighs any other factors that DOE may consider relevant to the public interest. When an Independent System Operator (ISO)/Regional Transmission Organization (RTO) conducts a separate reliability analysis, DOE's practice has been to review the ISO/RTO's analysis and make a determination as to the project's impact on reliability of the bulk power electric system. In this case, the Project falls outside of any RTO/ISO. However, the Maine Public Utility Commission (MPUC) and Northern Maine Independent System Administrator (NMISA) analyzed the reliability impacts of Houlton Water's proposal and DOE reviewed these analyses and conclusions to guide its determination on the Project's anticipated impact on system reliability.

A. Reliability Analysis

The Town of Houlton is located in an area of Maine that is not connected to the ISO New England Inc. (ISO-NE) system. Instead, Houlton falls into the Northern Maine Transmission System (NMTS), which is controlled by the NMISA. The NMISA is a non-profit entity responsible for the administration of the NMTS and electric power markets in Aroostook and Washington counties, with a load of approximately 130 MW.³ The utility currently serving the Town of Houlton is Emera Maine (Emera) which serves Houlton Water through two 69-kV lines connecting Houlton Water's electric system at the Mullen Substation, and thereby, to the rest of the U.S. electric grid.

In this application, Houlton Water proposes to disconnect from the U.S. electric grid, by disconnecting from Emera, and instead to become electrically part of the Canadian grid via New Brunswick Power (NBP), a Canadian utility. Houlton Water is proposing to construct the Houlton/New Brunswick Power Interconnection because it

³ While Houlton Water's proposed configuration does not modify NMISA's responsibilities in any way, it is important to note that the MPUC, in its December 8, 2016 Order, took note of Me. Rev. Stat. tit. 35-A, § 3132(14), which states:

Notwithstanding any other provision of this section, the commission may not issue a certificate of public convenience and necessity that has the effect of eliminating the independent system administrator for northern Maine or eliminating or materially modifying the scope of responsibilities of the independent system administrator for northern Maine unless the certificate is subject to a requirement for the full compensation for the net adverse effects on ratepayers as determined by the commission.

Me. Rev. Stat. tit. 35-A, § 3132(14).

believes the connection to NBP and subsequent disconnection from Emera to be in the interest of its customers.

Houlton Water had filed an application with the MPUC seeking approval of several loan agreements intended to fund the construction of new facilities at issue here and necessary to support a Network Service Agreement (NSA) and Interconnection Facilities Agreement (IFA) with NBP. On December 8, 2016, the MPUC issued an order (MPUC Order) granting Houlton Water a Certificate of Public Convenience and Necessity (CPCN) approving the NSA/IFA under the Maine Revised Statutes, title 35-A, section 3133-A (Me. Rev. Stat. tit. 35-A, § 3133-A).⁴ Houlton Water submitted the MPUC Order, as well as expert testimony from the case, as part of its Presidential permit application now before the Department.

Necessary to the MPUC's determination in its December 8, 2016 Order was an analysis of reliability considerations. Under Maine law, a utility may not enter any "significant agreement or contract" without receiving a CPCN from the Commission approving the proposed agreement or contract.⁵ Me. Rev. Stat. tit. 35-A, § 3133-A. The statute also provides that the Commission shall issue a CPCN if it finds that a need for it exists and it is reasonable and consistent with the public interest. *See id.*

The MPUC thoroughly analyzed the reliability questions raised by intervening parties, including Emera and the Maine Office of the Public Advocate. For example, in response to a concern that the proposed new configuration would represent a degradation in service because Houlton Water is currently served by a dual feed looped system, and would transition to a single 34.5-kV distribution line served by a single 136-kV line, the MPUC stated that the reliability associated with the redundancy of the current dual-feed looped system is mitigated by the co-location of the two lines and culmination in a single substation. This existing configuration thus contains common points of potential failure, which reduces reliability. *See* MPUC Order at 23.

In addition, the MPUC noted that while both existing lines are scheduled for rebuild and the Mullen substation requires maintenance, the transmission and distribution line and substation at the border, to be provided under the NSA/IFA, will all be new. *See* MPUC Order at 24.

The MPUC Order also included a table depicting NBP's 2011-2016 record of Service Area Interruption Frequency Index (SAIFI) and Service Area Interruption Duration Index (SAIDI) results. The results demonstrated NBP's extensive experience and proficiency at providing service to its customers via radial transmission lines. MPUC Order at 24.

In response to Emera's concern of loss of load criteria, the MPUC stated that

⁴ Order, *Houlton Water Co. Request for Approval of Application for Financing Pursuant to 35-A M.R.S. § 901 et seq.*, MPUC Docket No. 2016-00086 (Dec. 8, 2016).

⁵ In an Order issued August 23, 2016, the MPUC had "found that the NSA and IFA, taken together, were a significant agreement requiring a CPCN under Section 3133-A." *See id.* at 6.

Houlton Water's load is less than the 25 MW threshold contained in the criteria, and, as such, the loss of a radial line under Houlton Water's proposed configuration would not result in a criteria violation. The MPUC stated the service would be similar, and in fact, superior to the service currently provided to other NBP customers served radially. MPUC Order at 24.

The MPUC stated that Houlton Water's transition to NBP could "represent a slight to moderate degradation in reliability *depending on how one views the reliability of the current service it receives from Emera.*" MPUC Order at 25 (emphasis added). In support of that statement, the MPUC pointed to Emera's 2015 relatively-higher SAIFI results when compared with NBP's historic SAIFI results. *See id.*

The MPUC concluded, based upon the record evidence, the common points of failure in the existing configuration, and the positive SAIFI and SAIDI metrics achieved by NBP across its system, "that Houlton Water should be able to continue to provide safe, adequate and reliable service to its ratepayers under the proposed configuration." MPUC Order at 26.

Finally, the MPUC Order cited specifically to testimony provided by the NMISA, which stated that based upon its general knowledge of the NMTS and on information available to date, the NMISA does not anticipate any reliability problems as a result of the removal of Houlton Water's load from the NMTS. MPUC Order at 26.

Based upon the MPUC's reliability analysis in the December 8, 2016 Order, which relied in turn on an NMISA reliability analysis and concluded that it could not find that the proposal would result in loss of reliability on the NMTS, DOE concludes that the reliability of the U.S. grid will not be negatively affected by the proposal before it.

B. Environmental Analysis

On May 5, 2017, DOE determined that the appropriate level of National Environmental Policy Act (NEPA) review for this Project was a Categorical Exclusion (CX). Under DOE's regulations, the Project qualifies for several CXs, codified as B4.6, B4.11, and B4.12. They are as follows:

Additions or modifications to electric power transmission facilities within a previously disturbed or developed facility area. Covered activities include, but are not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, load shaping projects (such as the installation and use of flywheels and battery arrays), changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms.

10 C.F.R. Part 1021, App. B to Subpart D, § B4.6.

Construction of electric power substations (including switching stations and support facilities) with power delivery of 230 kV or below, or modification (other

than voltage increases) of existing substations and support facilities, that could involve the construction of electric powerlines approximately 10 miles in length or less, or relocation of existing electric powerlines approximately 20 miles in length or less, but not the integration of major new generation resources into a main transmission system.

10 C.F.R. Part 1021, App. B to Subpart D, § B4.11.

Construction of electric powerlines approximately 10 miles in length or less that are not for the integration of major new generation resources into a main transmission system.

10 C.F.R. Part 1021, App. B to Subpart D, § B4.12.

Additionally, per the requirements of 10 CFR Subpart D, DOE has determined that the Project described above does not have a significant individual or cumulative effect on the human environment, and that authorizing the proposed action will not (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health; (2) require siting of new facilities or expansion of existing facilities; (3) disturb hazardous substances, pollutants or contaminants; or (4) adversely affect environmentally sensitive resources.

To invoke these CXs, DOE must determine that, in relevant part, “[t]here are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal,” and that “[t]he proposal has not been segmented to meet the definition of a categorical exclusion.” 10 C.F.R. § 1021.410(b)(2), (3). “Extraordinary circumstances” include “unique situations” such as “scientific controversy about the environmental effects of the proposal.” *Id.* § 1021.410(b)(2). DOE finds that Houlton Water’s application does not present such a circumstance, nor has it been segmented for purposes of this CX. For these reasons, DOE will not require more detailed NEPA review in connection with this application. *See, e.g., id.* §§ 1021.400(a)(1), 410; 40 C.F.R. § 1501.4(a).

C. Concurrences

On June 9, 2017, the Department of Defense concurred with the issuance of a Presidential permit to Houlton Water for the Project. On July 5, 2017, the Department of State concurred as well.

III. FINDINGS AND DECISION

Based on its review of Houlton Water’s application, the MPUC Order, and testimony given in the proceeding, DOE finds that the Project will not have negative impacts 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.

In addition to DOE's reliability determination, based upon 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 Houlton Water 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 of Electricity Delivery & Energy Reliability to DOE's Energy Information Administration (EIA). Houlton Water is required to submit Form EIA-111 "Quarterly Electricity Imports and Exports Report," or any successor forms, as specified by the EIA. Houlton Water 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 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 Houlton Water Company 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:

An approximately 11.8-mile overhead transmission system originating at the Woodstock, New Brunswick substation in Canada and terminating in the Town of Houlton, Maine. From the Woodstock Substation, a 69-kV transmission line would run approximately 9.3 miles to a new substation near the Canada/U.S. border in Canada. From that substation, a 38-kV line would run less than a mile to the U.S. border. From that point, a 1.5-mile, 38-kV transmission line would extend from the U.S. border to connect into the Houlton, Maine electric distribution system.

The Project would cross the U.S.-Canada border near 46 degrees – 7 min – 58.16 sec N and 67 degrees – 46 min – 52.48 sec W.

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 such that the scheduled rate of transmission of electric energy entering the United States over the facilities operated herein shall not exceed 30 MW for all seasons into the Houlton system. The facilities are approved for import, but entities seeking to do so would require an electricity export authorization from DOE pursuant to section 202(e) of the Federal Power Act.

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. Houlton Water Co. 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. Houlton Water Co. 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. Houlton Water Co. shall investigate any complaints from nearby residents of radio or television interference identifiably caused by the operation of the facilities covered by this Permit. Houlton Water Co. 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. Houlton Water Co. 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. Houlton Water Co. shall hold the United States harmless from any and all such claims.

Article 9. Houlton Water Co. 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. Houlton Water Co. shall make and preserve full and complete records with respect to the electric energy transactions between the United States and Canada. Houlton Water Co. 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" and all successor forms.

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 owned, operated, maintained, and connected by Houlton Water Co. 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 Houlton Water Co. If Houlton Water Co. 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 Houlton Water Co. Houlton Water Co. 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. Houlton Water Co. 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 17, 2017.



Catherine Jereza

Deputy Assistant Secretary

Transmission Permitting and Technical Assistance Division
Office of Electricity Delivery and Energy Reliability