

NATIONAL ENERGY BOARD

IN THE MATTER OF the *National Energy Board Act*, R.S.C. 1985, c. N-7, as amended and the regulations made thereunder;

AND IN THE MATTER OF an Application by ITC Lake Erie Connector LLC for a certificate pursuant to section 58.16 of the *National Energy Board Act*.

FINAL ARGUMENT OF ITC LAKE ERIE CONNECTOR LLC

August 12, 2016

To: The Secretary
National Energy Board
517 – 10th Avenue S. W.
Calgary, AB T2R 0A8

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1 1 INTRODUCTION

2 1.1 Overview

3 ITC Lake Erie Connector LLC (ITC) is proposing to build, own and operate a 1000 MW high
4 voltage direct current international power line (the Lake Erie Connector or Project) that will
5 connect Canada (Haldimand County, Ontario) and the United States (Erie County,
6 Pennsylvania). ITC has applied to the National Energy Board (the NEB or Board) under
7 section 58.16 of the *National Energy Board Act*¹ (NEB Act) to construct and operate the
8 Canadian portion of the Project. Necessary approvals are also being sought for the U.S.
9 portion of the Project, including a Presidential Permit issued by the U.S. Department of
10 Energy, Pennsylvania Department of Environmental Protection permits and a U.S. Army
11 Corps of Engineers permit.

12 The Project is in the Canadian public interest. The Project offers significant economic,
13 commercial and electricity system reliability benefits and will have little to no residual
14 and/or cumulative socio-economic and environmental effects. Any minimal impacts are
15 capable of being fully avoided or mitigated through the Board's proposed Possible
16 Conditions for Comment (Proposed Conditions) with which ITC largely concurs.

17 The Project, which is being developed as an entirely privately funded merchant project, will
18 be the first direct connection between the Independent Electricity System Operator (IESO)
19 market in Ontario and the PJM Interconnection LLC (PJM) market in the U.S. mid-Atlantic
20 and Midwest (the largest electricity market in the U.S.). The Project will be financially
21 supported by commitments from transmission customers who will purchase capacity on the
22 transmission line and thereby the right to trade electricity and potentially other products
23 (e.g., capacity, ancillary services, renewable energy credits) between the IESO and PJM
24 wholesale electricity markets. Neither Ontario nor PJM electricity ratepayers will be
25 required to support the costs of developing, operating and maintaining the Project, although
26 they will benefit from enhanced reliability and system and market efficiency benefits.

27 The Project will enhance trade, competition and market efficiency generally, as well as
28 augment electricity system reliability; in particular, the Project will provide:

¹ *National Energy Board Act*, R.S.C. 1985, c. N-7

- 1 • an opportunity for Ontario market participants to take advantage of significant
2 price differentials that exist between the Ontario and PJM markets;
- 3 • reliable supply alternatives for Ontario in the near to medium term as the
4 province evolves its electricity system supply mix and retires/refurbishes its
5 nuclear fleet; and
- 6 • the opportunity for Ontario to capitalize on its coal retirement and renewable
7 energy investment by selling clean energy (and related products) to U.S. states
8 for the purpose of meeting increasingly stringent carbon regulations.

9 The Canadian portion of the Project commences at a converter station to be built in the
10 industrial area associated with the Lake Erie Industrial Park, across from Ontario Power
11 Generation's (OPG) former Nanticoke coal generating station and the Nanticoke
12 Transformer Station switchyard. The Project has a small terrestrial footprint and follows
13 existing rights-of-way; the Project's alternating current (AC) transmission cables extend
14 underground for approximately 1.3 km within an existing road allowance between the OPG
15 lands and the converter station site, the high-voltage direct current (HVDC) transmission
16 cables extend underground for approximately 1.3 km on land within an existing road
17 allowance before entering into Lake Erie by horizontal direct drilling (HDD). The
18 remaining 46.8 km of cable on the Canadian side will be buried in the Lake Erie lakebed.
19 The proposed converter station, HVDC cable location and preferred underwater route were
20 selected to avoid and minimize potential effects on wetlands, natural features,
21 archaeological and cultural resources, aquatic habitat, fishing activity, shipping traffic, and
22 impacts on surrounding landowners and the broader community of Nanticoke.

23 **1.2 Organization of Argument**

24 Only six parties registered to intervene and five parties registered as commenters. None of
25 the intervenors raised any significant concerns regarding the Project. Nor did any of the
26 intervenors file evidence, request an oral hearing, or register any opposition to the Project.
27 Only one of the intervenors, the IESO, submitted an information request to ITC. ITC's
28 Application and pre-filed evidence are largely if not entirely uncontested.

Given the absence of any opposition to the Project and the absence of contentious issues, ITC has prepared a brief final argument which highlights key portions of ITC's pre-filed evidence and responses to information requests that are relevant to the Board's Issues List. ITC's argument is organized as follows:

- *Background* - summarizes the steps in the NEB process and provides a brief update on the status of the U.S. approvals processes;
- *Legal Framework* - outlines the NEB's jurisdiction and the public interest standard for approval of the Project under section 58.16; and
- *Issues* - as directed in the Board's June 6, 2016 procedural order, ITC has addressed the issues in the Board's Issues List by highlighting the relevant supporting pre-filed evidence and responses to the Board's information requests.

2 BACKGROUND

2.1 NEB Process

2.1.1 Pre-Filing Consultation

Prior to filing its Application, ITC undertook public and agency consultation and engaged with potentially impacted Aboriginal groups in accordance with ITC's comprehensive Consultation Plan and Aboriginal engagement program outlined therein. The Consultation Plan was developed to address the requirements of the NEB Act and the Electricity Filing Manual, 2015. The Aboriginal engagement program was guided by legal requirements derived from section 35 of the *Constitution Act, 1982*², applicable regulatory requirements and relevant guideline sources, such as the Electricity Filing Manual, 2015 the *Canadian Environmental Assessment Act*³ and related policy and guidance materials.

Pre-filing consultation activities involved three rounds of consultation with the general public, government and non-governmental agencies and organizations and engagement with over 17 Aboriginal groups, which was conducted through meetings and telephone calls, public open houses, mailings and newspaper notices and development of a Project

² *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (U.K.), 1982, c. 11.

³ *Canadian Environmental Assessment Act 2012*, S.C. 2012, c. 19, s.52 (CEAA 2012)

1 website. Feedback received during these activities was, and will continue to be, considered
2 as the Project progresses.

3 2.1.2 *Application Filing and Participation*

4 ITC filed its Application with the Board on May 22, 2015. ITC's Application consisted of five
5 volumes of supporting materials, including an environmental and socio-economic
6 assessment (ESEA) and a description of ITC's Aboriginal and stakeholder consultation. The
7 information contained in the Application meets the requirements of the NEB Act and the
8 Electricity Filing Manual, 2015.

9 The NEB determined on October 19, 2015 that the Application was sufficiently complete to
10 proceed to assessment. On October 21, 2015, the Board issued a Hearing Order, which
11 provided directions for giving notice of the Application, and the Board released its Issues
12 List.

13 ITC served notice on the parties directed by the Board and on November 4, 2015 published
14 notices of the hearing in the Simcoe Reformer, Two Row Times, Turtle Island News and the
15 Hamilton Spectator and in Le Regional, a French language newspaper. Notice was
16 published in the Sachem and Glanbrook Gazette on November 5, 2015 and published in the
17 November edition of the Windspeaker (Birchbark) newspaper. As directed, copies of the
18 Application were also made available at the Norfolk County Public Library and the Central
19 Library in Hamilton, Ontario. Although not directed by the Board, but consistent with
20 ITC's pre-Application notice of open houses, notice of the hearing was also distributed by
21 Canada Post via unaddressed Admail to 485 residential and non-residential addresses
22 located within 5 km of the Project site during the week of November 2, 2015.

23 Prior to the formal Application to Participate window from November 9 to 27, 2015, the
24 Board held three Information Sessions on the NEB Hearing Process and two Applying to
25 Participate Workshops to inform and educate potential participants on how they could
26 participate in the hearing process and the nature of the hearing process. A further Applying
27 to Participate Workshop was held during the window for making Application to Participate.

28 During the Application to Participate window, eleven parties applied to participate in the
29 hearing — six sought intervenor status and five sought commenter status. Parties granted

1 intervenor status included: Hydro One Networks Inc. (HONI), Natural Resources Canada,
2 the Ontario Ministry of Natural Resources and Forestry, Elmcrest (a collection of individuals
3 with common interest), the IESO and the Haudenosaunee Confederacy Chiefs Council.
4 Health Canada, Haldimand County, Environment and Climate Change Canada, Manitoba
5 Hydro and the Industrial Power Users of Niagara were granted commenter status.
6 Although the Board specifically notified Fisheries and Oceans Canada of the Application in
7 its letter dated November 16, 2015, and advised of the opportunity to participate in the
8 hearing, Fisheries and Oceans Canada declined.

9 The Haudenosaunee Confederacy Chief's Council declined the Board's March 4, 2016
10 invitation to have the Board hear and determine whether the constitutional issues it had
11 raised in the Application to Participate would form part of the hearing process; it also
12 declined to present oral traditional evidence.

13 **2.1.3 Steps in Proceeding**

14 On December 15, 2015, the Board issued a List of Parties and an initial hearing timetable.
15 Subsequent procedural and hearing process updates were issued on May 3 and June 6, 2016.
16 Over the course of the hearing process, the Board has issued and ITC has answered seven
17 rounds of information requests. The IESO was the only intervenor to issue information
18 requests; it submitted a single information request, which ITC answered to the IESO's
19 satisfaction.

20 ITC filed supplementary evidence updates on February 26, June 24, July 6 and July 29, 2016.
21 The Board asked and ITC answered information requests concerning this supplementary
22 evidence.

23 No intervenor chose to file written evidence; nor did any intervenors request an oral hearing
24 and/or propose to call witnesses or cross-examine at an oral hearing. Consequently, ITC's
25 Application and supporting evidence is not contested by any intervenors.

26 On May 3, 2016 the Board decided to continue the proceeding by means of a written hearing
27 process.

2.2 U.S. Permitting Approval Processes

ITC has made application for major U.S. permits and approvals. On May 29, 2015, ITC applied for a Presidential Permit, which has since undergone public and agency review and has completed the public comment period for the federal environmental assessment prepared by the federal Department of Energy. A joint application for Pennsylvania Water Obstruction and Encroachment Permit and Submerged Lands License Agreement and U.S. Army Corps of Engineers (USACE) *Rivers and Harbors Act* Section 10 and *Clean Water Act* Section 404 Permits was submitted on January 29, 2016. The scheduled public comment periods for the Pennsylvania and USACE permits have also been completed. As noted in section 4.4.2.2 of the Application, all of these U.S. permits are expected to be issued by Q2 2017.

Additionally, PJM is expected to issue its Facilities Study in the fall of 2016. As noted in the response to Information Request No. 4.15, the Interconnection Service Agreement and Interconnection Construction Service Agreements are expected to be signed after the Facilities Study is issued.

3 LEGAL FRAMEWORK

ITC Lake Erie is requesting that the Board recommend the issuance of a certificate under section 58.16 of the NEB Act to construct and operate the Canadian portion of the Project. The applicable portions of subsection 58.16(1) read as follows:

58.16 (1) The Board may, subject to section 24 and to the approval of the Governor in Council, issue a certificate in respect of ...

(b) an international power line in relation to which an election is filed under section 58.23 ...

if the Board is satisfied that the line is and will be required by the present and future public convenience and necessity.
[Emphasis added.]

As prescribed by section 58.16(1), the Board must address three categories of requirements to issue a certificate under section 58.16:

- 1 • *Jurisdictional* – The applicant must file an election under section 58.23 to have the
2 NEB Act, and not the laws of a province, apply in respect of the existing or
3 proposed international power line.
- 4 • *Procedural* – The Board must hold a public hearing as required by section 24 of
5 the NEB Act and have the approval of the Governor in Council.
- 6 • *Substantive* – The Board must be satisfied that the international power line is and
7 will be required by the present and future public convenience and necessity.

8 ITC fulfilled the jurisdictional requirement by filing an election certificate on May 19, 2015 to
9 have the provisions of the NEB Act, and not the provincial laws of Ontario, apply in respect
10 of the proposed Lake Erie Connector (section 2 of the Application).

11 The procedural requirement to hold a hearing under section 24 has been fulfilled by the
12 Board's hearing process detailed above. The Governor in Council will decide whether to
13 approve the issuance of a certificate after receiving a recommendation from the Board under
14 subsection 58.16(4). In accordance with the NEB Act's prescribed review timelines, the
15 Board must issue and submit its recommendation to the Governor in Council by January 20,
16 2017 (within 15 months of having deemed the application complete).

17 In considering whether the substantive requirement of subsection 58.16(1) is met — that is
18 whether the line is and will be required by the present and future public convenience and
19 necessity — the Board may consider a broad range of factors. Subsection 58.16(2) of the NEB
20 Act provides that the Board may have regard to all relevant considerations:

21 In deciding whether to issue a certificate, the Board shall have
22 regard to all considerations that appear to it to be directly
23 related to the line and relevant.⁴

24 When undertaking this task, the Board must, in effect, determine whether the project is in
25 the “overall Canadian public interest”, a determination which the Board has repeatedly
26 stated turns on the consideration and balancing of a broad range of economic, social and
27 environmental factors:

⁴ NEB Act, s. 58.16(2)

[T]he Board describes the public interest as being inclusive of all Canadians: it refers to a balance of environmental, economic and social considerations that evolve as society's values and preferences evolve over time. Determining whether the project is in the public interest involves an exercise of discretion and requires a balancing of the benefits and burdens associated with the project.⁵

On October 21, 2015, the Board released an Issues List which broadly identifies the range of matters which the Board has determined are relevant to considering and balancing the potential economic, environmental and social benefits and burdens in this case. As stated above, ITC's argument focusses on the evidence and answers to information requests that are relevant to the Board's Issues List.

4 ISSUES

4.1 Project Need, Economic Feasibility and Potential Commercial Impacts

Issues 1, 2 and 3 identified in the Board's Hearing Order are the need for the Project, the economic feasibility of the Project, and the potential commercial impacts of the Project. These interrelated issues are addressed in section 3.6 of the Application and Annex 2 (the Lake Erie Connector Market Assessment Report), and responses to Information Request Nos. 1.1 and 5.1 and throughout the responses to Information Request Nos. 3, 3.A and 4.

4.1.1 Market and Electricity System Needs

As the Lake Erie Connector is a merchant project, the economic and financial risks of the Project will be entirely borne by ITC (and transmission customers who subscribe for capacity on the Project). Neither Ontario nor PJM ratepayers will be burdened with any of the costs of developing, operating or maintaining the Project.

The Lake Erie Connector is one of a number of merchant transmission projects that have been developed, or are in development across Canada and the U.S. As detailed in section 3.6.3 and Annex 2 of the Application, three merchant transmission projects have already been developed in PJM to allow energy and capacity from PJM resources to be sold into

⁵ National Energy Board, Decisions and Recommendations, Enbridge Pipelines Inc., OH-002-2015 (April 2016) ("Enbridge Line 3 Replacement Decision"), Vol. I, pp. 3; see also National Energy Board, Report and Recommendations, Trans Mountain Expansion Project, OH-001-2014 (May 2016) ("Trans Mountain Expansion Decision"), pp. 13; National Energy Board, Reasons for Decision, TransCanada Keystone Pipeline GP Ltd., OH-1-2009, (March 2010), pp. 78.

1 higher priced markets in New York and Long Island. Similar to the Project, these other
2 merchant transmission lines were developed based on the sale of long-term transmission
3 rights to parties that were seeking access to New York or PJM; in response to the limited
4 number of direct connections between New York and PJM; and, employed technologies, like
5 HVDC, that allowed energy flows over interties to be directly controlled.

6 In assessing economic need and feasibility for pipeline projects the Board typically considers
7 evidence of market demand and whether the project will be reasonably utilized over its
8 economic life.⁶ In the case of merchant transmission projects, the Board has articulated a
9 lower threshold. That is because all economic and financial risks are borne by the applicant
10 and will not be passed on to ratepayers; and, if the market does not support the project it
11 will not be built, which negates the need to consider any socio-economic or environmental
12 burdens resulting from construction or operation. In the circumstances, the Board has
13 stated that it is not necessary for the applicant to show that it has signed contracts with
14 transmission customers; it is sufficient to demonstrate that the project has “the potential to
15 respond to market need”.⁷ ITC will, as the Board has suggested in its Proposed Conditions,
16 file with the Board at least 60 days prior to construction, confirmation that it has signed the
17 necessary long-term contracts to proceed with the Project.

18 Permitting and approval agencies in the U.S. apply a similar standard to applications for
19 merchant transmission projects. The U.S. Department of Energy (DOE), in determining
20 whether issuance of a Presidential Permit for an international transmission line is
21 “consistent with the public interest”, considers two criteria: the environmental impact of the
22 project and the impact of the project on electric reliability. The DOE does not require the
23 applicant to demonstrate economic need.⁸

⁶ Enbridge Line 3 Replacement Decision Vol. II, pp. 8; NEB Trans Mountain Expansion Decision, pp. 293.

⁷ Reasons for Decision, Sea Breeze Victoria Converter Corporation, EH-1-2006 (“Sea Breeze Decision”), pp. 9-10. See also NEB Decision in Montana Alberta Tie Line (MATL) Application for Permit to Construct and Operate an IPL, File OF-Fac-IPL-M159-2005 01 (“MATL Decision”) at pp. 4-5.

⁸ See <http://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/international-electricity-regulation-9>. It should also be noted that in granting negotiated rate authority, FERC, pursuant to section 205 of the *Federal Power Act*, also does not require the applicant (and did not require ITC in this case) to demonstrate market demand for the project. The FERC order granting ITC authority to sell transmission rights at negotiated rates stated that: “Commission precedent distinguishes merchant transmission projects from traditional public utilities in that the developers of merchant projects assume all of the market risk of a project and have no captive customers from which to recover the costs”; and further found that ITC satisfied the test for the granting of

The evidence filed by ITC demonstrates that the Project will meet a number of market and Ontario electric system demands and has the potential to significantly enhance trade, efficiency and competitiveness for the benefit of Ontario ratepayers and suppliers. The new transportation infrastructure added by the Project is in the Canadian public interest. The Board in TransCanada Keystone Pipeline stated that “for markets to function properly, there must be adequate transportation capacity to connect supply to markets”.⁹ Likewise in the MATL Decision, which also concerned a merchant International Power Line (IPL) project, the Board in granting the permit application stated:

... power producers in Alberta can benefit from access to new markets and consumers in Alberta can benefit from access to new sources of generation. The fact that MATL is a private company and aims to make a profit also carries the converse risk that MATL’s investors bear the risk for any funds devoted towards the construction and operation of the IPL.

In addition, the Board is of the view that under normal operating conditions, system reliability can be fortified by interconnections with adjacent jurisdictions and interconnections such as the proposed IPL can optimize the construction and use of generation resources.¹⁰

The evidence that the Project will address a number of market and electricity system needs may be found in section 3.6, Annex 2 and in responses to Information Request Nos. 3.A.1.4, 3.A.2.1, 4.3, 4.16 and 5.1. This evidence demonstrates that the Project will meet a number of needs, including the following:

- Electricity trade between Ontario and U.S. markets is constrained by limits of existing transmission capabilities and trade between Ontario and PJM is limited by significant transactional costs due to lack of a direct connection between the two markets (and limited transmission capability on alternate paths). A direct path between Ontario and PJM will reduce transaction costs by approximately

negotiated rate authority on, inter alia, the basis that “[n]o entity on either end of the Project is required to purchase transmission service from [ITC], and customers will do so only if it is cost-effective”: See ITC Lake Erie Connector LLC, 148 FERC ¶ 61,236 (2014) (“ITC Lake Erie Order”), at pp. 2 and 7, available at: <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=13644364>.

⁹ Reasons for Decision, TransCanada Keystone Pipeline GP Ltd., OH-1-2007 (Sept. 2007), pp. 55; see also, Reasons for Decision, Enbridge Pipelines Inc., OH-04-2007 (February 2008), pp. 65.

¹⁰ MATL Decision, pp. 4 to 5

50% (i.e., \$7/MWh). The Project by increasing transmission capacity and reducing transaction costs, offers Ontario suppliers and customers the opportunity to increase electricity trade by taking advantage of the significant price differentials that exist between the two markets. This will facilitate Ontario suppliers obtaining the highest value for their electricity resources and Ontario consumers purchasing electricity at the lowest cost.

- Ontario's recent initiatives to develop a capacity market and/or the trading of firm generating capacity provides another potential source of value and the opportunity for Ontario to reduce the cost of adding new supply. In particular, the analysis in Annex 2 of the Application (at p. 24) demonstrates the ability to import capacity from PJM may provide a substantial benefit to Ontario in late 2016 until 2031 which is the period when Ontario is scheduled to refurbish or retire its nuclear facilities, and is forecast to have a potential capacity shortfall. ITC's negotiations with potential transmission customers are not contingent on the IESO establishing a capacity market and/or capacity trade; the Project offers substantial value in the absence of such market changes. However, as detailed in response to Information Request No. 4.3 there are strong indicators that the IESO (like many other North American electricity markets) intends to introduce capacity trade and/or a capacity market. The introduction of a capacity market in Ontario therefore offers potential transmission customers an additional source of value.
- As detailed in Annex 2 of the Application (at pp. 30-31), renewable portfolio standards in PJM and more stringent environmental regulations, specifically the 2014 U.S. *Clean Power Plan*, offer a substantial opportunity for Ontario to capitalize on its renewable and clean energy investments by supplying clean energy, capacity and related products, e.g., renewable energy credits, to PJM.
- The Project will provide IESO system operators with additional flexibility and help them manage dispatch and other operational issues arising from significant changes to Ontario's supply mix caused by retirement of coal generation and the large influx of renewables. This includes managing surplus baseload generation.

1 In addition to providing operational flexibility, this will enhance market and
2 power system efficiency and benefit Ontario ratepayers.

- 3 • As addressed further in section 4.4.1 below, the Project, by increasing transfer
4 capability and providing a direct controlled link between Ontario and PJM, will
5 enhance the reliability of both power systems. The IESO is supportive of the
6 Project and has endorsed necessary changes to its Market Rules and protocols to
7 ensure that transmission customers who subscribe for capacity on the Project will
8 have access to this capacity.

9 ***4.1.2 Economic Feasibility and Ability to Finance***

10 As discussed in section 3.3 of the Application and Information Request Nos. 3.A.2.2 and
11 3.14, ITC intends to finance the Project based on project revenues from transmission
12 customers. ITC was granted negotiated rate authority by the Federal Energy regulatory
13 Commission (FERC) in 2014, subject to carrying out an open solicitation process with
14 potential transmission customers. ITC launched the open solicitation process in June 2015.
15 Details of the progress of the open solicitation process are provided in the response to
16 Information Request Nos. 3.12, 3.A.1.1 and 4.2.

17 ITC received a number of expressions of interest and has been in bilateral negotiations with
18 potential transmission customers for the purpose of executing transmission service
19 agreements. ITC extended the initial March 31, 2016 target date for execution of
20 transmission service agreements in order to accommodate potential customers' requests for
21 additional information, financial analysis, etc. and time to consider this information. ITC
22 has responded to potential transmission customers' requests by providing more in-depth
23 market analysis from its professional advisers, specifically the Brattle Group, and updates
24 on its progress in obtaining the necessary Canadian and U.S. permits and approvals, which
25 is also important to potential customers. ITC's confidential responses to Information
26 Request No. 4.2 indicate that potential transmission customers have expressed interest in
27 contracting for substantial transmission capacity and ITC is encouraged by the progress of
28 on-going discussions.

1 ITC is presently targeting the completion of the open solicitation process by the end of 2016,
2 although ITC may further extend this date if necessary to reasonably accommodate
3 potential customers and if it will facilitate the negotiation of transmission service
4 agreements on more favourable terms.

5 A final determination of whether to proceed with the Project will depend on whether ITC
6 receives sufficient contractual commitments from interested transmission customers. ITC is
7 confident that it will negotiate sufficient contractual commitments with transmission
8 customers, as evidenced by its expenditure of substantial time and resources developing the
9 Project and negotiating with potential transmission customers. If, however, ITC is unable to
10 negotiate sufficient contractual commitments to proceed with the Project, ITC will bear all of
11 the sunk developments costs in which case there will be no material inconvenience or cost
12 (e.g., environmental impact/cost) to the public because the Project will not be built.

13 ITC anticipates that it may rely upon its parent ITC Holdings for any residual funding
14 needs. ITC has the full financial support and credit of its parent company ITC Holdings, a
15 New York Stock Exchange listed company which is the U.S.'s largest independent electricity
16 transmission company. As evidenced by ITC's application materials, ITC Holdings has a
17 strong balance sheet, strong credit ratings and significant access to liquidity and capital
18 markets.

19 The proposed acquisition by Fortis, scheduled to close in late 2016, is not anticipated to have
20 any adverse impact on the Project, including financing of the Project. As detailed in
21 response to Information Request No. 3.A.2.2, ITC Holdings will remain as a stand-alone
22 company (owned directly by Fortis) and ITC will remain a subsidiary of ITC Holdings.
23 Fortis has a long history in the Canadian utility sector and has demonstrated strong
24 profitable growth. The Fortis-ITC acquisition is being structured so that Fortis will maintain
25 solid investment-grade credit ratings and a consistent capital structure. Following closing
26 of the proposed transaction, Fortis will be one of the top 15 North American public utility
27 companies ranked by enterprise value, with an estimated enterprise value of CDN \$42
28 billion.

4.2 Design, Construction and Operations

Issue 4 identified in the Board's Hearing Order is a consideration of "[t]he suitability of the design, construction and operation of the Project." The Project has three distinct components:

- HVDC converter stations and ancillary facilities
- Terrestrial cable systems
- Underwater cable systems

4.2.1 Haldimand Converter Station

The Haldimand Converter Station will have a main building (converter hall), which will be used to house HVDC converter modules and a service building to house control and protection equipment, cooling equipment and auxiliary distribution panels. The HVDC converter modules will convert the AC power to direct current (DC) power or vice-versa. The design of the converter station is discussed in detail in section 4.2.2 of the Application and in responses to Information Request No. 1.2 filed on August 4 and September 18, 2015 and in an Addendum to section 4.0 of the Application-Project Description and Engineering, filed as Attachment 4 to the supplementary evidence filed on February 26, 2016.

The construction process for the Haldimand Converter Station is detailed in section 2.2.2.2 of the Application. Recommendations and information respecting the foundation design are contained in Annex 4 to the Application and the responses to Information Request Nos. 4.8 and 7.5.

The Haldimand Converter Station will operate 24 hours a day/7 days a week. Operations and Decommissioning/Abandonment of the converter station are discussed in section 4.2.2.4 of the Application and in responses to Information Request Nos. 3.16 and 3.A.1.9.

4.2.2 Terrestrial Cables

The connection to the existing IESO grid will be by an underground 500 kilovolt (kV) AC transmission line which will connect the Haldimand Converter Station to the existing Nanticoke Transformer Station switchyard by way of a terminal station which is described in sections 4.2.3.1 of the Application, as amended by Attachment 4 to the supplementary evidence filed on February 26, 2016 and 4.5.7.1 of the Application. The underground HVDC

transmission line will consist of two power transmission cables and a fibre optic cable. The preferred underground HVDC transmission cable route will extend approximately 1.3 km from the converter station to the Lake Erie landfall point.

The design of the terrestrial AC and DC cables is discussed in section 4.2.3.1 of the Application. General installation procedures and construction methods are detailed in section 4.2.3.2 through 4.2.3.7 of the Application as amended by Attachment 4 to the supplementary evidence filed on February 26, 2016. Issues raised with respect to the use of HDD were specifically addressed in the responses to Information Request Nos. 3.25, 4.7 and 7.1 to 7.3 inclusive.

The terrestrial HVDC cable will operate 24 hours a day/7 days a week. Operations and Decommissioning/Abandonment of the terrestrial cables is discussed in section 4.2.3.9 of the Application and in the responses to Information Request Nos. 3.16 and 3.A.1.9.

4.2.3 Underwater HVDC Cable

The preferred underwater cable route for the ± 320 kV HVDC transmission line will extend approximately 46.8 km across Lake Erie from the Canadian landfall location to the U.S./Canada border.

The design of the underwater cable is discussed in section 4.2.4.1 of the Application as amended by Attachment 4 to the supplementary evidence filed on February 26, 2016. The underwater HVDC transmission cables will be solid dielectric polymer insulated HVDC cables, which will be deployed with a fibre optic cable. An extruded lead moisture barrier with an external polyethylene jacket will be used to protect the insulation system. To protect the cable and provide additional strength during installation, an armoring system consisting of one layer of galvanized wires with bedding layers will be installed over the polyethylene jacket. The two underwater HVDC transmission cables and the fibre optic cable will be bundled together and placed in a common trench for the majority of the underwater cable installation to minimize disturbance and external electrical and magnetic fields.

Underwater cable construction and installation procedures are discussed in section 4.2.4.2 of the Application as amended by Attachment 4 to the supplementary evidence filed on

February 26, 2016 and addressed extensively in the responses to Information Request Nos. 3.5, 4.4, 4.5, 5.2, 5.4 , 5.A.2, 7.1, 7.2, 7.3 and 7.4. The cable will be installed using a jet plow installation for the majority of the route with HDD to transition from the landfall location to Lake Erie. Between kilometre post (KP) 15 and KP55 along the underwater HVDC cable route, depicted on page 10 of Attachment 2 to the response to Information Request No. 5, the load bearing capacity of the lake bed is insufficient to support jet plow installation and an alternative installation method will be used, most likely involving post-lay burial remote operated vehicles.

The underwater HVDC cable will operate 24 hours a day/7 days a week. A Cable Risk-Assessment and Cable Self-Burial Assessment is Attachment 1 to ITC's response to Information Request No. 5. Operations and Decommissioning/Abandonment of the underwater cable is discussed in section 4.2.4.4 of the Application and in responses to Information Request Nos. 3.16 and 3.19.

System design and operations is discussed in section 4.2.5 of the Application.

4.3 Safety and Security

Issue 5 of the Board's Hearing Order is the "[s]afety and security during construction and operation of the Project, including emergency response planning and third-party damage prevention."

The safety and security of the Project are addressed in section 4.2.5 of the Application and responses to Information Request Nos. 1.2 and 6.1. Measures will be taken to minimize potential effects on navigation and navigation safety during the construction /installation and repair of the HVDC cable as detailed in section 6.2.2.13 of the Application as amended by an Addendum to the Net Effects Assessment filed as Attachment 2 to the supplementary evidence filed on February 26, 2016, the Navigation and Navigation Safety (Marine Vessel Traffic and Movement Plan) included in ITC's draft Environmental Protection Plan filed with the Board on June 24, 2016 and ITC's response to Information Request Nos. 3.8, 3.9 and 7.14. Specific details regarding the multi-function barriers to be used during construction are contained in the responses to Information Request Nos. 3.2.1, 3.24 and 3.A.1.8.

1 ITC has made numerous commitments to ensure the Project will be constructed and
2 operated in a safe and secure manner and will comply with the Board's conditions
3 respecting the filing of construction and operations safety manuals and contingency and
4 emergency response plans and will comply with all applicable health and safety legislation
5 and reliability standards applicable to the Project. These commitments include the use of
6 multi-functional barriers around work areas during Project construction to prevent
7 inadvertent access by humans or wildlife to the work areas. Post-construction, security
8 fencing will surround the converter station area to prevent unauthorized access and to
9 ensure public safety.

10 ITC has committed to developing Emergency Response Plans for the construction and
11 operation phases of the Project, as detailed in ITC's response to Information request No. 6.1,
12 which will include site-specific Health and Safety Plans.

13 These plans will be developed in accordance with applicable standards, including Canadian
14 Standards Association (CSA) Standard Z731-03 *Emergency Preparedness and Response* and
15 North American Electric Reliability Corporation (NERC) Standard EOP-001-2b-*Emergency*
16 *Operations Planning* and appropriate persons, agencies, and governments that have the
17 relevant expertise in establishing such plans will be consulted through an iterative process.

18 The process for hazard identification and evaluation will assess the probabilities and
19 consequences associated with hazards arising from human activities and technological
20 events, including those events that could be caused by, or impact on third parties or natural
21 threats in accordance with CSA Standard Z731-03 *Emergency Preparedness and Response*. Site-
22 specific Health and Safety Plans will be developed to define the potential hazards at each
23 work site.

24 Risk-based analyses evaluating historical occurrence, probability of recurrence,
25 vulnerability, maximum threat potential, severity, and amount of pre-event warning for
26 various hazards will be examined and a representative risk assessment will be completed
27 for the Project.

4.4 Potential Impact on the Bulk Power System

Issue 6 identified in the Board's Hearing Order is the potential impact of the Project on the bulk power system, including neighbouring jurisdictions. The Board has stated that the effect of a proposed international powerline on other provinces "is an important consideration in the Board's examination of an application."¹¹

As further explained below, the Project will enhance the reliability of both Ontario's and PJM's electricity grids without any adverse impacts on the reliability of the Ontario or neighbouring bulk power systems.

4.4.1 Reliability Benefits of the Project

The IESO undertook a system impact assessment (SIA) (Annex 1 to the Application) and concluded that the Project "is expected to have no material adverse impact on the reliability of the integrated power system ... [and] ... will increase the overall import/export capability of Ontario's transmission system" (at p.5). The IESO's Final Addendum to the SIA, filed as Attachment 12 to the response to Information request 3.A.2.3 confirmed these findings (at p.1). The IESO therefore issued a Notification of Conditional Approval. The transmitter HONI also completed a Customer Impact Assessment (CIA) to determine short circuit impacts. The CIA was included as Attachment 13 to Information Response No. 3.A.2.3 and concluded that the short circuit levels are acceptable and will not impact customers.

The reliability benefits that the Project offers are addressed at sections 3.6.2 and 4.3 of the Application and Information Request Nos. 3.A.1.3, 3.A.2.3, 4.17 and 5.7. Interties between power systems provide operational and planning flexibility that enhance the reliability and the cost effectiveness of electricity systems. Interconnections also provide needed support during emergency events, such as a sudden loss of a significant generating source or loss of transmission elements.

Section 3.6.2.3 of the Application specifically details how the Project's HVDC technology, by increasing transfer capability and establishing a direct controlled intertie between the IESO

¹¹ MATL Decision, p. 6.

1 and PJM wholesale electricity markets, will further augment power system reliability in
2 both jurisdictions:

- 3 • The Project's HVDC technology allows for instantaneous and automatic control of
4 voltage through reactive power adjustments, which is essential to mitigating voltage
5 concerns, including voltage collapse that can lead to system-wide blackouts.
- 6 • HVDC interties help to maintain the scheduled flow of energy independent of
7 conditions on the connecting power systems, which can help to maintain reliability
8 during system disturbances.
- 9 • The Project can provide much needed support following emergency or unforeseen
10 events, for instance, the sudden loss of a significant generation or transmission
11 resource, or loss of load. The Project will therefore increase Ontario's ability to
12 respond to emergency and unforeseen events.

13 Lastly, the Project may be capable of addressing Ontario-specific reliability and supply
14 needs occasioned by rapid and substantial changes to the Province's resource supply mix.
15 As the IESO stated in its October 2014 report on the *Review of Ontario Interties*:

16 Ontario has generally maintained sufficient resource
17 capability within the province to be self-sufficient. The
18 province has now transitioned to a new resource supply mix,
19 including shutting down coal-fired facilities, building modern
20 natural gas facilities and increasing its reliance on renewable
21 energy, conservation, storage and demand response. Given
22 Ontario's major restructuring to a low-carbon electricity
23 system, the future role for the interties, and in particular the
24 possibility of longer-term reliance on inter-jurisdictional clean-
25 energy transactions, warrants consideration.¹²

26 **4.4.2 No Adverse Impact on Manitoba Hydro**

27 Manitoba Hydro, in its comment letter dated March 3, 2016 and in subsequent responses to
28 information requests from the Board, questioned whether potential impacts to Manitoba's
29 power system had been considered and it raised concerns regarding the Project's potential

¹² *Review of Ontario Interties*, October 2014, p. 4

1 contribution to loop flow around the Great Lakes and the potential impact of this on
2 Manitoba Hydro's electric system.

3 The IESO confirmed in its responses to Information Request Nos. 1 and 2 that it assessed
4 and considered impacts to Manitoba Hydro's system as part of its system impact assessment
5 and determined that Project "will cause negligible changes to loop flows on the ON-MB and
6 ON-MN ties" and that Manitoba Hydro's concerns "are significantly overstated ... [and] ...
7 unfounded". Specifically, the IESO stated that:

- 8 • The SIA conducted by the IESO verified that the Project will meet all applicable
9 North American and Ontario reliability standards and it assessed the impact of
10 the Project both on the reliability of the IESO-controlled grid and on all intertie's
11 connecting the Ontario transmission system with neighbouring transmission
12 systems. Further, in response to Manitoba Hydro's concerns, the IESO
13 conducted an additional distribution factor analysis.
- 14 • The Project will have negligible impact on loop flows on the Ontario Manitoba
15 (ON-MB) and Ontario-Minnesota (ON-MN) ties because, among other things:
 - 16 ○ The Project is not an AC transmission line. It is a DC interconnection which
17 uses power electronics and control systems to accurately control power flow
18 across the interconnection; this substantially reduces the contribution of the
19 Project to any loop flows. Loop flow effects are much more pronounced
20 with AC interconnections.
 - 21 ○ The ON-MB and ON-MN ties connect to the IESO-controlled grid in the
22 northwestern portion of the power system, while the Project would connect
23 in southern Ontario. The ON-MB and ON-MN ties are (electrically) very
24 distant from the Project and the transmission system connecting northern
25 and southern Ontario consist of a few, very long transmission lines, which
26 provide a high resistance to loop flows. The IESO's distribution factor
27 analysis showed that less than 0.6% of the scheduled import/export would
28 appear on the ON-MB interconnection and less than 0.3% would appear in

1 the ON-MN interconnection, making the maximum contribution of the
2 Project to loop flows on these ties, 6 MW and 3 MW respectively.

- 3 • Manitoba Hydro's concern that the loss of the Project will result in cascade
4 tripping is materially incorrect. As the NERC reliability coordinator for Ontario,
5 the IESO is required to plan and operate the entire transmission system such that
6 the impact of the loss of any single transmission or generation element is limited.
7 The loss of any element, including the Project, will never cause tripping that
8 cascades outside of the Province. That said, the IESO will, if necessary, update
9 its operating limits to ensure cascade tripping will not occur following the loss of
10 the Project.

11 The IESO fully considered the potential impact of the Project on the interties connecting the
12 Ontario transmission system with neighbouring transmission systems and verified that
13 connection of the Project will comply with all applicable reliability standards. No further
14 detailed study, as suggested by Manitoba Hydro, is warranted. Furthermore, as the IESO
15 determined that the Project will not materially contribute to loop flow or otherwise
16 adversely impact Manitoba Hydro's system or equipment, no mitigation strategies or
17 approval conditions are warranted.

18 **4.5 Potential Environmental and Socio-Economic Effects**

19 Issue 7 identified in the Board's Hearing Order is "[t]he potential environmental and socio-
20 economic effects of the Project, including any cumulative environmental effects that are
21 likely to result from the Project, including those required to be considered by the NEB's
22 Electricity Filing Manual."

23 The potential environmental and socio-economic effects of the Project are addressed
24 extensively in section 6 and Appendix D and supporting studies annexed to the Application
25 and in ITC's response to Information Request Nos. 1, 2, 3, 3.A, 4, and 6 and supplementary
26 evidence filed on February 26 and June 24, 2016.

1 **4.5.1 *Scope and Methodology***

2 The scope of methodology of the Environmental and Socio-Economic Assessment (ESEA)
3 for the Project is set out in section 6.1.2 of the Application, as amended by Attachment 2 to
4 the supplementary evidence filed on February 26, 2016.

5 The ESEA for the Project addresses the planning and siting phases of the Project and the
6 potential environmental and socio-economic effects of the Project, including any cumulative
7 effects that are likely to result from the Project, including those required to be considered by
8 the NEB's Electricity Filing Manual. The ESEA reflects the environmental and socio-
9 economic setting, the relevant issues and concerns for the Project based on the setting and
10 potential interactions of the Project with biophysical and socio-economic elements at
11 sufficient level of detail to assess the nature and magnitude of the Project. The ESEA
12 provides the baseline (setting) information for each element studied; a description of the
13 potential interactions of the Project with the environment and Project-related environmental
14 effects; identification of mitigation measures and residual effects; and an evaluation of the
15 significance of the residual effects and cumulative effects. Potential for effects during
16 construction, operation and maintenance, and decommissioning/abandonment of the
17 Project, assumed a minimum 30 year operating life for the Project.

18 **4.5.2 *Terrestrial Effects***

19 The potential impacts of the converter station siting and terrestrial cable routing are
20 evaluated in section 6.2.1 of the Application as amended by Attachment 2 to the
21 supplementary evidence filed on February 26, 2016.

22 The ESEA examined the impact of the Project on various bio-physical and socio-economic
23 terrestrial elements including vegetation, water quality and quantity, emissions to air,
24 electromagnetism and corona discharge, fish and fish habitat, wildlife and wildlife habitat,
25 species at risk, and socio-economic elements including human occupancy and resource use,
26 heritage resources, navigation and navigation safety, traditional land and resource use,
27 social and cultural well-being, human health and aesthetics, infrastructure and services, and
28 the employment and economy. The analysis in section 6.2.1 is supported by a series of
29 reports carried out by a multidisciplinary team of expert consultants. For the majority of
30 bio-physical and socio-economic terrestrial elements, during construction, operation and

1 maintenance and decommissioning of the Project, minimal to no potential for negative net
2 effects were identified.

3 The terrestrial effects raised in Information Requests include potential impacts to terrestrial
4 wildlife including migratory birds and bat and amphibian species at risk.

5 Potential effects on terrestrial wildlife, including migratory birds, bat and amphibian species
6 at risk were assessed in Annex 13 of the Application as updated by Attachment 6 to the
7 supplementary filing made with the Board on February 26, 2016 which addressed questions
8 raised by the Board in Information Request Nos. 3.21, 3.22 and 3.24.

9 The response to Information Request No. 3A.1.7 confirmed that the construction footprint of
10 the converter station, including temporary construction workspaces and a portion of the
11 HVDC and AC cable route are located within a corn/soy field and that the remainder of the
12 terrestrial cable routes are located within or alongside existing road allowances which are
13 not considered to be migratory bird nesting habitat. Measures to prevent the inadvertent
14 harming, killing, disturbance or destruction of migratory birds, nests and eggs, including
15 pre-construction bird surveys, are included in Attachment 4 to the response to Information
16 Request No. 3A. The construction contractor's site supervisor, staff, workers and
17 subcontractors will be briefed on measures to report observations of potential nesting
18 activities to an on-call biologist who will attend the site and confirm the presence and
19 location of nests.

20 Critical habitat of bat species at risk does not occur at or near the Haldimand Converter
21 Station site. Consultation with the Ministry of Natural Resources and Forestry did not reveal
22 specific concerns regarding potential bat impacts. Attachment 2 to the Response to
23 Information Request No. 3A.1.5 provides a summary of scientific peer-reviewed literature
24 that describes the effects on bats from lights and noise at similar levels to the light and noise
25 that will be present during operation of the converter station. As noted in Attachment 2, the
26 Project is not expected to negatively affect roosting bats.

27 The details of the multi-functional protective barrier to be used during construction around
28 the sump pit, the launching pits on either side of the rail spur lines used for jack and bore
29 installation and any open trench associated with cable installation that will prevent

1 inadvertent trespass by wildlife, including amphibian and reptiles are contained in the
2 response to Information Request No. 3A.1.8.

3 The draft Wildlife Encounter and Species of Concern Discovery Contingency Plan included
4 in section 14.2 of the draft Environmental Protection Plan filed with the Board on June 24,
5 2016, addresses the protocols for managing encounters with, and discoveries of, wildlife
6 during construction and operations. The Plan will apply to the construction areas, staging
7 areas, construction yards, and public roadways used for transporting materials associated
8 with the Project.

9 In accordance with proposed condition No. 22, ITC will confirm to the Board prior to
10 construction that a qualified environmental compliance manager will be on site during
11 construction. As required by proposed condition No. 26, in the event of construction or
12 clearing activities within restricted activity windows for migratory birds, ITC will retain a
13 qualified avian biologist to carry out pre-construction surveys in accordance with
14 Environment and Climate Change Canada's guidance to identify any migratory and other
15 breeding birds and active nests in and around the Project site.

16 No effects have been identified on wildlife, wildlife habitat, species at risk and species of
17 special concern in the post-construction period for the terrestrial portion of the Project, as
18 documented in the Supplementary Evidence Filing of February 26, 2016, Attachment 2,
19 Addendum Net Effects Assessment. As a result, no mitigation measures, monitoring
20 approaches, criteria for evaluating success or measures to correct issues have been identified
21 as being required for wildlife, wildlife habitat, species at risk and species of special concern
22 in the post-construction period for the terrestrial portion of the Project.

23 **4.5.3 Aquatic Effects**

24 The potential impacts of the HVDC underwater route are evaluated in section 6.2.2 of the
25 Application as amended by Attachment 2 to the supplementary evidence filed on February
26 26, 2016.

27 The ESEA examined the impact of the Project on various bio-physical and socio-economic
28 aquatic elements including vegetation, water quality and quantity, emissions to air,
29 electromagnetism and corona discharge, fish and fish habitat, wildlife and wildlife habitat,

1 species at risk, and socio-economic elements including human occupancy and resource use,
2 heritage resources, navigation and navigation safety, traditional land and resource use,
3 social and cultural well-being, human health and aesthetics, infrastructure and services, and
4 employment and the economy. The analysis in section 6.2.2 is supported by a series of
5 reports carried out by a multidisciplinary team of expert consultants. For the majority of
6 bio-physical and socio-economic aquatic elements, during construction, operation and
7 maintenance and decommissioning of the Project, minimal to no potential for negative net
8 effects were identified.

9 The aquatic effects raised in Information Requests include potential impacts to fish and fish
10 habitat and water quality during installation of the underwater cable, including potential
11 effects of blasting and construction of an offshore sump pit. An assessment of fish and fish
12 habitat and mitigation and avoidance measures that will be employed is contained in
13 section 6.2.2.5 of the Application and Annex 13, as updated by Attachment 1 to the
14 supplementary response to Information Request No. 1.3 filed on September 18, 2015, which
15 also included a Blasting Impact Analysis. Additional information related to the interaction
16 of the Project with fish habitat is addressed in Annexes 11, 26 and 27.

17 Project-specific measures to protect fish and fish habitat during blasting and cable
18 installation are described in Attachment 1 to the supplementary evidence filed on
19 September 18, 2015 and in section 6.4 of the draft Blasting Plan contained in the draft
20 Environmental Protection Plan filed with the Board on June 24, 2016. As required by
21 proposed condition No. 16, ITC will advise the Board of any relevant in-water restricted
22 activity timing windows prior to the commencement of construction of the in-water trench.

23 Annex 11 and Attachment 1 to the supplementary evidence submission made on February
24 26, 2016 assess potential water quality impacts based on modelling undertaken using
25 sediment data collected along the proposed cable route and potential impacts from the
26 proposed method of cable installation. The analysis concluded that Provincial Water Quality
27 Objectives will not be exceeded. The HDD Contingency Plan and Emergency Plan, which
28 includes an Inadvertent Return Contingency Plan in section 14.1 of the draft Environmental
29 Protection Plan filed with the Board on June 24, 2016, specifies in section 14.1.5 the
30 environmental protection measures to mitigate potential effects associated with HDD in the

case of a malfunction, accident or emergency. As noted in the response to Information Request No. 7.9, and required by proposed condition No. 23, ITC will provide confirmation to the Board that a qualified aquatic specialist will be on site during Project construction to monitor water quality on site during blasting activities and HDD exit activities within Lake Erie.

4.5.4 *Economic Impact*

The impact of the Project on employment and the economy is discussed in sections 6.2.1.17 and 6.2.2.18 of the Application. The Economic Impact Analysis in Annex 25 of the Application concludes that all stages of the Project will deliver economic benefits to Ontario:

- *Construction* – The cumulative benefits of the Project over the construction period are estimated to include 331 jobs, \$21.4 million of employment income, \$38.2 million of GDP, \$8.8 million in government tax revenues and \$65.9 million of business revenue.
- *Operation and Maintenance* – The average annual impact of the Project during operations is estimated to include 11 jobs, \$0.9 million of employment income, \$1.9 million of GDP, \$0.4 million in tax revenues and \$3.1 million of business revenue. Increased income tax and property tax revenues will also result from the Project.
- *Decommissioning/Abandonment* – Decommissioning of the converter station will result in a temporary increase in employment for deconstruction, and a loss of one to two permanent positions.

4.5.5 *Cumulative Effects Analysis*

The cumulative effects analysis considered the setting, potential interactions and mitigation measures and identified minimal potential for negative net/residual effects and potential for positive (beneficial) effects on employment and the economy, during construction, operations and maintenance and decommissioning/abandonment of the underwater HVDC cables.

1 The ESEA concluded that the Project will have little to no residual and/or cumulative
2 effects.

3 ITC has provided a draft Environmental Protection Plan as contained in the supplementary
4 evidence filed on June 24, 2016 and in responses to Information request Nos. 3.20, 3.25, and
5 4.11 and supplementary evidence submitted February 26, 2016. The draft Environmental
6 Protection Plan contains protocols and procedures for the mitigation and minimization of
7 potential environmental effects associated with the construction and operation of the
8 Project.

9 ITC has committed to providing the Board with a final Environmental Protection Plan that
10 will address additional components as identified in the response to Information Request No.
11 7, once detailed Project design has been completed.

12 **4.6 General Routing and Land Requirements**

13 Issue 8 identified in the Board's Hearing Order is "[t]he appropriateness of the general route
14 and land requirements for the Project." The general routing and land requirements of the
15 Project were addressed in sections 4.1 and 4.2 of the Application as amended by Attachment
16 4 to the supplementary evidence filed February 26, 2016, sections 4.5 and 7.0 of the
17 Application and the response to Information Request Nos. 3.5 and 3.6.

18 **4.6.1 Routing**

19 ITC determined that the Nanticoke Transformer Station switchyard was the only feasible
20 point of interconnection on the north shore of Lake Erie that provided an opportunity for a
21 reasonable route and connection across Lake Erie as there are no other 500 kV switchyards
22 along the Lake Erie shore. Two potential converter station locations were considered in the
23 ESEA - one on Riverside Drive and the other on Haldimand Road, together with the
24 associated cable routing. The approach used to identify potential alternatives, the
25 application of evaluation criteria, and the rationale for selection of the preferred alternatives
26 for the converter station site, terrestrial AC and HVDC and underwater HVDC cable routes
27 is discussed in section 4.5 of the Application. Table 4.5-2 of the Application provides a
28 comparative analysis of the alternative converter stations. The Haldimand Road location
29 was chosen as the preferred alternative as it was preferable from the perspective of

1 engineering design/feasibility, economic feasibility/costs, less potential construction
2 impacts on the local community and in regards to potential environmental and socio-
3 economic effects. These factors are discussed below.

4 The appropriateness of the general route and land requirements for the Project were
5 assessed in the ESEA and discussed with various government and non-government
6 agencies, members of the public who attended the open houses for the Project and in
7 focused meetings with Aboriginal groups. Input from these parties informed the technical
8 design and location of the Project's terrestrial and aquatic components of the Project.

9 The Haldimand Road converter station location is preferred as it aligns with the industrial
10 land-uses encouraged within the Lake Erie Industrial Park (LEIP) and associated Industrial
11 Influence Area, minimizes the distance to the existing Nanticoke Transformer Station
12 switchyard, which is the point of interconnect to the IESO grid, avoids impact to wetlands
13 and other natural features located along Nanticoke Creek and the Lake Erie shore,
14 minimizes natural resource and community impacts, including impacts to the Hamlet of
15 Nanticoke and Hickory Beach cottages and maximizes the visual screening/buffering
16 capacity of the site through the use of existing features, topography and separation
17 distances.

18 The preferred terrestrial AC and HVDC cable routes were selected to minimize
19 environmental and community impacts and, in particular to align with municipal land-uses
20 encouraged in the Industrial Influence Area of the LEIP, minimize the distance to the
21 existing Nanticoke Transformer Station switchyard, avoid impact to natural features located
22 along either Nanticoke Creek and/or the Lake Erie shoreline, minimize potential effects to
23 the local community including the Hamlet of Nanticoke and Hickory Beach cottages and
24 minimize potential effects on local utility infrastructure.

25 The preferred HVDC cable landfall location and preferred aquatic cable route were selected
26 to minimize distance to the existing Nanticoke Transformer Station switchyard, avoid
27 potential effects to wetlands, natural features, shoreline and the nearby community, avoid
28 impacts to aquatic habitat in Lake Erie (such as potential fishery and spawning areas),
29 avoid and minimize impacts on shoreline, shipping traffic, fishing activity, and potential

1 damage to the HVDC cable from ice scour and anchor drag during cable installation and
2 operation, avoid potential archaeological and cultural heritage resources, such as
3 shipwrecks, located on the lakebed and minimize pipeline crossings by the HVDC cable.

4 **4.6.2 Land Requirements**

5 Land areas required for the Project, land rights required, the lands acquisition process and
6 agreements and discussion of Section 87 Notices and application to address a complaint are
7 set out in section 7.0 of the Application. The current status of ITC Lake Erie's acquisition of
8 the land requirements for the Project is set out in Attachment 4 to the response to
9 Information Request No. 3. ITC will comply with the NEB Act land acquisition
10 requirements.

11 The proposed converter station and associated facilities (including equipment, driveway
12 and perimeter roads, stormwater management facilities, and fencing) will be located on a
13 15.5 ha parcel of private property to be acquired by ITC, which fronts on Haldimand
14 County Road 55, across from the road from the Nanticoke Transformer Station switchyard
15 and OPG's former Nanticoke coal generating station. The property will be used for staging
16 and laydown activities during the construction of the converter station and installation of
17 the HVDC and AC cables.

18 The preferred underground route for the 500 kV AC cables connecting the converter station
19 with the Nanticoke Transformer Station switchyard which, once installed, will extend
20 underground in a trench approximately 1 metre wide, east from the proposed converter
21 station, across Haldimand Road 55, south along the east right-of-way of Haldimand Road 55
22 up to the point of entry onto the OPG lands where it will connect through a terminal station
23 to the existing Transformer Station infrastructure on lands to be leased from OPG-Nanticoke
24 Inc.

25 The preferred underground HVDC transmission cable route will extend approximately 1.3
26 km from the proposed converter station site to the Lake Erie landfall point and will follow
27 the east right-of-way of Haldimand Road 55 from the proposed converter station site to the
28 point of landfall at the Lake Erie shore. A trench approximately 1 metre wide will be
29 required for the HVDC cable.

ITC is in the process of negotiating the required approval from Haldimand County to permit the location of the cables in the right-of-way of Haldimand County Road 55 and is in the process of negotiating access to the cottage property adjacent to the landfall location.

The preferred underwater cable route for the HVDC transmission line will extend approximately 46.8 km across Lake Erie from the Canadian landfall, which constitutes approximately 97% of the Canadian portion of the HVDC cable route. The underwater HVDC cable will be buried between 1m to 3m in the lakebed, which is Crown land administered by the Ontario Ministry of Natural Resources and Forestry (MNRF).

It is anticipated that interim occupational authority through a Land Use Permit for a corridor of 100 m will be sought from the MNRF for installation of the HVDC cable. A lease and Crown-registered easement of approximately 30m in width, extending 15m to either side of the cable, based on the "as-built" cable location will subsequently be requested for operation, general maintenance and minor repair.

4.7 Aboriginal Engagement

Issue 9 identified in the Board's Hearing Order is "[p]otential impacts of the Project on Aboriginal interests."

ITC has extensively engaged with Aboriginal groups in connection with the Project since July 2013. The engagement activities undertaken by ITC are documented in section 5.3 of the Application, the response to Information Request Nos. 3.1 and 3.2 and Attachment 3 to the supplementary evidence filed on February 26, 2016.

The Aboriginal groups that ITC held early engagement meetings with and their respective distance from the Project site were:

- Mississaugas of the New Credit First Nation (21 km)
- Six Nations of the Grand River (30 km)
- Oneida Nation of the Thames (110 km)
- Chippewas of the Thames (115 km)
- Munsee Delaware Nation (117 km)
- Walpole Island First Nation (200 km)

- Caldwell First Nation (224 km)

ITC engaged with a further five Aboriginal groups located 150 km or more from the Project site and with the Chiefs Councils of the Haudenosaunee Development Institute on behalf of the Haudenosaunee Confederacy Chiefs Council and the Southern First Nations Secretariat. ITC has entered into engagement agreements and agreements for the oversight of the archaeological fieldwork on the converter station site with the Mississaugas of the New Credit First Nation (MNC) and the Six Nations of the Grand River (Six Nations). Potential benefits of the Project on Aboriginal interests include opportunities for potential contracting and employment and/or training opportunities, which ITC continues to discuss with the MNC and Six Nations.

The potential impact of the Project on traditional land and resource use was assessed in section 6.2.1.13 of the Application as amended by the Attachments 2 and 3 to the supplementary evidence filed on February 26, 2016. The analysis concluded that the Project would have minimal to no potential for negative net/residual effects on traditional land and resource use.

The potential impact of the Project on heritage resources was assessed in section 6.2.1.12 of the Application and in the terrestrial Stage 1 and 2 archaeological assessments submitted as Annexes 22 and 3 of the Application, respectively, and in the Stage 3 archaeological assessment submitted with ITC's supplementary response to Information Request No. 1 submitted to the Board on December 18, 2015. The Stage 3 assessment determined that a Stage 4 archaeological assessment and artifact recovery should be undertaken to mitigate potential effects on the archaeological resource located on the converter station site. A Stage 4 archaeological assessment and artifact recovery was commenced on the converter station site in the spring of 2016. The Stage 4 assessment will be provided to the Board in the fall of 2016.

Stage 1 and 2 archaeological assessments were undertaken in Lake Erie within the study area for the HVDC cable route and were submitted as Annex 8 of the Application and Attachment 6 to the response to Information Request No.3, respectively. The Stage 2

1 assessment concluded that in-water trenching represents a very low risk to significant
2 archaeological sites.

3 The Addendum to the Cumulative Effects Assessment filed as Attachment 7 to the
4 supplementary evidence filed on February 26, 2016, identified that the Project would have
5 minimal potential for negative net effects on terrestrial heritage resources, and no potential
6 for negative net effects on heritage resources in Lake Erie.

7 Only one Aboriginal group elected to participate in the proceeding – the Haudenosaunee
8 Confederacy Chiefs Council (HCCC). HCCC did not file any evidence, submit any
9 interrogatories to ITC, or request an opportunity to provide oral traditional evidence.

10 **4.8 Potential Impact on Landowners and the Use of Lands and Waters**

11 Issue 10 identified in the Board's Hearing Order is "[p]otential impacts of the Project on
12 landowners and the use of lands and waters."

13 The potential impacts of the Project, including impacts on landowners and use of lands and
14 waters, were assessed in detail in the ESEA in sections 6.1-6.3 and Appendix D of the
15 Application and supporting studies, which included net and cumulative effects analyses as
16 updated by ITC's responses to Information Request Nos. 1.4, 3.27, and Attachments 2 and 7
17 to ITC's supplementary evidence filed on February 26, 2016. None of the cottage owners
18 along Hickory Beach Lane objected to the Application. The Project is compatible with
19 surrounding land uses and will have no impact on the use and enjoyment of property.

20 No impacts on the quality and quantity of ground or surface water used for domestic,
21 commercial, agricultural or recreational uses has been identified during construction,
22 operation and decommissioning/abandonment of the Project. No effects are predicted on
23 livestock health and productivity or any other agricultural operations during construction,
24 operation and decommissioning.

25 Temporary and short-term dust, visual, traffic and noise impacts are anticipated during
26 construction of the converter station and installation of the AC and HVDC cables.
27 However, this is not anticipated to have any effect on local workers, business owners or
28 farm operations as there are no sensitive businesses or industries located in proximity to the

1 converter station site. Workers at the Ready-mix plant and the Haldimand County Water
2 Treatment Plant south of the site, and Hydro One staff at the Nanticoke Transformer Station
3 switchyard are not anticipated to be affected; farm operations in proximity to the site are
4 agricultural tilled fields.

5 In most areas, the cables will be buried in the lakebed to protect the cables from damage to
6 shipping traffic, fishing activity and ice scour. The preferred underwater cable route for the
7 HVDC transmission line will cross two active natural gas pipelines and one abandoned
8 natural gas pipeline in Lake Erie. ITC has been coordinating with the owner of those
9 facilities to ensure that its construction and installation techniques will minimize potential
10 effects on pipeline crossings. A Navigation and Navigation Safety Plan, as noted in the
11 Draft Environmental Protection Plan provided as Attachment 1 to the supplementary
12 evidence filed on June 24, 2016, will ensure that potential impacts to shipping traffic are
13 minimized.

14 **4.9 Proposed Conditions of the Certificate**

15 Issue 11 identified in the Board's Hearing Order is "[t]he terms and conditions to be
16 included in any recommendation or approval the Board may issue." On July 25 and August
17 8, 2016, the Board issued Proposed Conditions for consideration and comment by the
18 parties. Appendix A addresses each of the Proposed Conditions.

19 ITC, with limited exception, agrees with the Board's Proposed Conditions of approval.
20 Appendix A to these submissions contains a table of Board's Proposed Conditions with
21 annotations to indicate ITC's position with respect to each condition, including any
22 proposed revisions to the condition.

23 **5 CONCLUSION**

24 For the reasons detailed above, the Project is in the Canadian public interest and ITC
25 respectfully requests that the Board recommend the issuance of a Certificate under section
26 58.16 of the NEB Act to construct and operate the Canadian portion of the Project. The
27 Project offers significant economic, commercial and electric system reliability benefits and
28 will have little to no residual and/or cumulative socio-economic and environmental effects.

1 Any minimal impacts are capable of being fully avoided or mitigated through the Board's
2 Proposed Conditions.

3 All of which is respectfully submitted

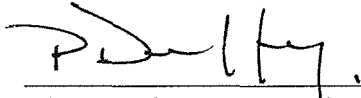
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Glenn Zacher and Patrick Duffy
Stikeman Elliott LLP
Counsel for ITC Lake Erie Connector LLC

APPENDIX A

Appendix A
Hearing Order EH-001-2015
ITC Lake Erie Connector LLC (ITC)
Election Certificate Application

Written Final Argument – Comments on Draft Conditions

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|---------------------------------------|---|-------------------|-----------|
| GENERAL/OVERARCHING CONDITIONS | | | |
| 1. | Condition Compliance ITC Lake Erie shall comply with all of the conditions contained in this Certificate unless the Board otherwise directs. | None | N/A |
| 2. | Sunset Clause Unless the Board otherwise directs prior to [date to be determined], this Certificate shall expire on [same date as above] unless construction in respect of the Project has commenced by that date. | None | N/A |
| 3. | Implementation of all Commitments ITC Lake Erie shall implement or cause to be implemented all of the policies, practices, mitigative measures, recommendations, and procedures for the protection of the environment and promotion of safety referred to in its Application, or as otherwise agreed to in its related submissions. | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| 4. | <p>General</p> <p>ITC Lake Erie shall cause the approved Project to be constructed, operated, and abandoned in accordance with the specifications, standards and other information referred to in its Application or as otherwise agreed to in its related submissions.</p> | None | N/A |
| 5. | <p>Commitments Tracking Table</p> <p>ITC Lake Erie shall:</p> <p>a) file with the Board and post on its website, at least thirty (30) days prior to the commencement of construction, a commitments tracking table listing all commitments made by ITC Lake Erie in its Application, and otherwise agreed to during questioning or in its related submissions, including references to:</p> <p>a.1) the documentation in which the commitment appears (for example, the Application, responses to information requests, hearing transcripts, permit requirements, condition filings, or other documentation);</p> <p>a.2) the accountable lead for implementing each commitment; and</p> <p>a.3) the estimated timelines associated with the fulfillment of each commitment;</p> | None | N/A |

| DRAFT CONDITION | PROPOSED REVISION | RATIONALE |
|--|-------------------|-----------|
| <ul style="list-style-type: none"> b) file with the Board, at the following times, an updated commitments tracking table: <ul style="list-style-type: none"> b.1) within ninety (90) days after the certificate date; and b.2) at least thirty (30) days prior to commencement of construction; c) update the status of the commitments and file those updates with the Board, on a monthly basis starting ninety (90) days after the certificate date until commencing operations, and quarterly during operations until all conditions are satisfied (except those that involve filings for the Project's operational life); d) post on its website the same information required by b) and c), within the same indicated timeframes; and e) maintain at each of its construction offices: <ul style="list-style-type: none"> e.1) the relevant environmental portion of the commitments tracking table listing all of ITC Lake Erie's regulatory commitments, including those from the Application and subsequent filings, and conditions from received permits, authorizations, and approvals; e.2) copies of any permits, authorizations, and approvals for the Project issued by federal, | | |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|------------------------------|--|--|--|
| | <p>provincial, or other permitting authorities that include environmental conditions or site-specific mitigation or monitoring measures; and</p> <p>e.3) copies of any subsequent variances to any permits, authorizations, and approvals in e.2).</p> | | |
| 6. | <p>Notification of Protection Modifications</p> <p>ITC Lake Erie shall seek approval from the Board of any proposed modification to the ITC Lake Erie electrical system before any modification is made.</p> | <p>Notification of Protection Modifications</p> <p>ITC Lake Erie shall seek approval from the Board of any proposed modification to <u>major components of</u> the ITC Lake Erie electrical system before any modification is made.</p> | <p>The term “electrical system” is overly broad and vague and could require notification for minor changes such as the electrical servicing to the staff building. The additional language limits the notification requirement to major components of the electrical system.</p> |
| PRIOR TO CONSTRUCTION | | | |
| 7. | <p>Compliance Program</p> <p>ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction, a Quality Assurance and Compliance Program. The Program shall describe the methods by which ITC Lake Erie shall ensure the Project described in the Application is designed, constructed and operated in conformity with the conditions of the certificate, designs, specifications, and undertakings set forth in its Application or as otherwise adduced in its evidence before the Board. The Program shall include, but not be limited to:</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| | <ul style="list-style-type: none"> a) a process or procedure to identify conditions of approval, company designs, specifications and undertakings set forth in the Application or otherwise adduced in ITC Lake Erie's evidence; b) processes or procedures to monitor, measure, document and report on compliance with conditions of approval, company designs, specifications and undertakings set forth in the Application or otherwise adduced in ITC Lake Erie's evidence; c) the position title and contact information of the person(s) responsible for each aspect of the Program; d) the qualifications, contact information, description of the job role and the position title of the person(s) who is authorized to stop work should the work be in non-conformity with conditions of approval, company designs, specifications and undertakings set forth in the Application or otherwise adduced in ITC Lake Erie's evidence; e) a process or procedure to identify and implement any corrective action as a result of any non-conformances that may be necessary before recommencing work; f) a process or procedure to evaluate the effectiveness of the corrective actions | | |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|---|--|
| | <p>taken as a result of any non-conformances; and</p> <p>g) methods by which adherence to the Program shall be monitored, measured, documented and reported to ITC Lake Erie's management.</p> | | |
| 8. | <p>In-Water Cable Burial Contingency Plan</p> <p>ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction, a contingency plan detailing the measures to be taken in the event that minimum burial depth as identified by ITC Lake Erie cannot be achieved in the lakebed. The contingency plan shall include an impact analysis, including any potential environmental effects, of any mitigation measures considered in response to burial depths shallower than the minimum burial depth.</p> | None | N/A |
| 9. | <p>Horizontal Directional Drilling (HDD) and Contingency Plan</p> <p>ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction:</p> <p>a) a drawing showing the HDD drill path, entry and exit points, the anticipated drill angles at the entry and exit points, the no drill zone, and the soil stratigraphy along the HDD trajectory based on the available borehole information;</p> | <p>Horizontal Directional Drilling (HDD) and Contingency Plan</p> <p>ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction:</p> <p>a) a drawing showing the HDD drill path, entry and exit points, the anticipated drill angles at the entry and exit points, the no drill zone, and the soil stratigraphy along the HDD trajectory based on the available borehole information; <u>and</u></p> | As stated in response to Information Request 7.1a), detailed geotechnical and geophysical investigations have already been completed and assessed by qualified and experienced engineers and HDD drilling contractors. No conditions have been identified which could pose a risk to the HDD or would require a detailed feasibility analysis. |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|--|-----------|
| | b) a contingency plan to provide an alternative installation approach along the Canadian shore-line in the event that the HDD procedure is not successful; and c) an analysis based on the available information to confirm safe and reliable HDD installation. | b) a contingency plan to provide an alternative installation approach along the Canadian shore-line in the event that the HDD procedure is not successful; and c) an analysis based on the available information to confirm safe and reliable HDD installation. | |
| 10. | Haldimand Converter Station Foundation Design ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction , a final geotechnical detailed design report that sets out the design parameters and methodologies recommended to design the foundations of the structures at the Haldimand Converter Station in accordance with the National Building Code of Canada. | None | N/A |
| 11. | Blasted In-Water Excavation and Backfill Material ITC Lake Erie shall file with the Board, at least one hundred twenty (120) days prior to the commencement of construction , the location of the identified source for the proposed crushed limestone borrow material to be used for the backfilling of the blasted in-water trench. | None | N/A |
| 12. | Construction Safety Manuals ITC Lake Erie shall file with the Board, at least ninety (90) days prior to the commencement of construction : | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | <p>a) safety manuals related to the construction of the Project. The manuals must address construction procedures, activities, and public safety issues for the following:</p> <p>a.1) terrestrial and in-water cable installation, including details on the post-lay burial procedure;</p> <p>a.2) Haldimand Converter Station construction;</p> <p>a.3) blasting activities; and</p> <p>a.4) navigation limitations to lake traffic during construction;</p> <p>b) an outline of the safety training program to be implemented for the operation of the Project.</p> | | |
| 13. | <p>Agreements and Crossing Permits</p> <p>ITC Lake Erie shall file with the Board, at least ninety (90) days prior to the commencement of construction, the identity of all infrastructure facilities to be crossed by the power line, and confirmation that all the agreements or crossing permits for those facilities have been acquired.</p> | None | N/A |
| 14. | <p>Reliability, Safety and Security of International Powerlines</p> <p>ITC Lake Erie shall:</p> <p>a) comply with the provisions of Board Order MO-036-2012 electric reliability; and</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | b) file with the Board a list of reliability standards applicable to the Project, at least sixty (60) days prior to commencement of construction. | | |
| 15. | In-Water Third Party Facilities Crossing Plan ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the commencement of construction , a plan setting out details as to how the Project will cross third party in-water facilities, including: <ul style="list-style-type: none"> a) minimum burial depth; b) proximity of the cable to all existing third party facilities; c) construction procedure; and d) confirmation that the information filed is in accordance with the agreements or crossing permits. | None | N/A |
| 16. | Adherence to In-Water Restricted Activity Timing Windows ITC Lake Erie shall file with the Board for approval, at least sixty (60) days prior to the commencement of construction of the in-water trench : <ul style="list-style-type: none"> a) the relevant in-water restricted activity timing windows for the proposed Project; b) the finalized timing of the in-water trench construction; c) in the event that in-water trench construction will not adhere to the in- | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|--|--|
| | <p>water restricted activity timing windows, the rationale for why, and mitigation measures to be applied; and</p> <p>d) a summary of ITC Lake Erie's consultation with regulatory agencies (e.g., Ontario Ministry of Natural Resources and Forestry) in relation to the matters set out in a) to c). This summary must include any issues or concerns raised and how ITC Lake Erie has addressed or responded to those issues or concerns.</p> | | |
| 17. | <p>Environmental Protection Plan (EPP)</p> <p>ITC Lake Erie shall file with the Board for approval, at least sixty (60) days prior to the commencement of construction, a final and updated project specific EPP, which it has committed to implement. The EPP shall describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in ITC Lake Erie's Application or as otherwise agreed to in its related submissions. The EPP shall use clear and unambiguous language that confirms ITC Lake Erie's intention to implement all of its commitments. Construction will not commence until ITC Lake Erie has received approval of its EPP from the Board.</p> | None | N/A |
| 18. | <p>Design and Interconnection Compliance</p> <p>ITC Lake Erie shall file with the Board for approval, at least sixty (60) days prior to the commencement of construction, a report</p> | <p>Design and Interconnection Compliance</p> <p>ITC Lake Erie shall file with the Board for approval, at least sixty (60) days prior to the commencement of construction, a report</p> | The range of ambient temperatures that the converter station can deliver its specified output (i.e., 1000MW w/330MVar) in the Functional Technical Specifications is -40 degrees C |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|---|--|
| | <p>confirming that the design of facilities, construction plan, and planned operations comply with the following:</p> <ul style="list-style-type: none"> a) ITC Lake Erie's 500 kV equipment has been designed for a continuous voltage rating of at least 550 kV; b) ITC Lake Erie's protective relaying system will be set to ensure that transmission equipment remains in-service for the voltage range between 94% of the minimum continuous value and 105% of the maximum continuous value; c) ITC Lake Erie's connection equipment has been designed to be fully operational within -40 degrees C to +85 degrees C; and d) ITC Lake Erie has made provision in the design of protections and controls of the Project to allow for future installation of Special Protection Scheme equipment that complies with the Northeast Power Coordinating Council Reliability requirements. | <p>confirming that the design of facilities, construction plan, and planned operations comply with the following:</p> <ul style="list-style-type: none"> a) ITC Lake Erie's 500 kV equipment has been designed for a continuous voltage rating of at least 550 kV; b) ITC Lake Erie's protective relaying system will be set to ensure that transmission equipment remains in-service for the voltage range between 94% of the minimum continuous value and 105% of the maximum continuous value; c) ITC Lake Erie's connection equipment has been designed to be fully operational within -40 degrees C to +85 degrees C <u>+40 degrees C ambient air</u>; and d) ITC Lake Erie has made provision in the design of protections and controls of the Project to allow for future installation of Special Protection Scheme equipment that complies with the Northeast Power Coordinating Council Reliability requirements. | <p>to +40 degrees C.</p> <p>The LEC link is rated to operate at full output (i.e., 1000 MW at 0.95 lag/lead pf) at ambient temperatures from -40 degrees C to +40 degrees C.</p> |
| 19. | <p>Weed Management Plan</p> <p>ITC Lake Erie shall file with the Board for approval, at least forty-five (45) days prior to the commencement of construction, a project specific Weed Management Plan that includes:</p> | None | N/A |

| DRAFT CONDITION | PROPOSED REVISION | RATIONALE |
|--|-------------------|-----------|
| <ul style="list-style-type: none"> a) ITC Lake Erie's goals, including mitigation goals, and measurable objectives regarding the Weed Management Plan; b) the methods and procedures available to achieve the mitigation goals and clear decision criteria for their selection; c) a mechanism for tracking weed problems and weed control activities; d) criteria to evaluate if the mitigation goals have been met; e) adaptive management practices that will be used to revise the mitigation methods and procedures if evaluation criteria determine that mitigation goals are not met; f) a summary of ITC Lake Erie's consultation concerning the matters set out in a) to e) with appropriate regulatory authorities, including any issues or concerns raised and how ITC Lake Erie has addressed or responded to those issues or concerns; g) the type and frequency of monitoring activities and parameters to be monitored and the applicable criteria that it would be used to measure against; h) a proposed schedule for reporting to the Board on the progress and success of the Plan; and | | |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | i) confirmation that the approved Weed Management Plan will be attached to the final EPP. | | |
| 20. | <p>Waste Management Plan</p> <p>ITC Lake Erie shall file with the Board for approval, at least forty-five (45) days prior to the commencement of construction, an updated Waste Management Plan which identifies measures to manage waste from construction and operations for the in-water portion of the route. The Plan shall include:</p> <ul style="list-style-type: none"> a) ITC Lake Erie's goals, including mitigation goals, and measurable objectives regarding the Waste Management Plan for the in-water portion of the route; b) the methods and procedures available to achieve the mitigation goals and clear decision criteria for their selection; c) criteria to evaluate if the mitigation goals have been met; d) adaptive management practices that will be used to revise the mitigation methods and procedures if evaluation criteria determine that mitigation goals are not met; e) details on handling, storage, use, and disposal of waste; f) a summary of ITC Lake Erie's consultation concerning the matters set out in a) to e) with appropriate regulatory authorities, including any | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | <p>issues or concerns raised and how ITC Lake Erie has addressed or responded to those issues and concerns;</p> <p>g) the type and frequency of monitoring activities and parameters to be monitored and the applicable criteria that it would be used to measure against;</p> <p>h) a proposed schedule for reporting to the Board on the progress and success of the Plan; and</p> <p>i) confirmation that the approved Waste Management Plan will be attached to the final EPP.</p> | | |
| 21. | <p>Heritage and Archaeological Resources</p> <p>ITC Lake Erie must file with the Board, at least 30 days prior to the commencement of construction:</p> <p>a) for both the terrestrial and in-water portions of the Project, confirmation, signed by an officer of the company, that it has obtained all of the required archeological and heritage resource permits and clearances from the relevant provincial authorities;</p> <p>b) a description of how ITC Lake Erie will meet any conditions and respond to any comments and recommendations contained in the permits and clearances referred to in a); and</p> <p>c) a description of how ITC Lake Erie has incorporated any additional mitigation</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|---|--|
| | measures into its EPP as a result of any conditions, comments, or recommendations referred to in b). | | |
| 22. | <p>Environmental Inspector Qualifications</p> <p>ITC Lake Erie shall file with the Board, at least fourteen (14) days prior to commencement of construction, confirmation that a qualified environmental inspector shall be on site during construction. ITC Lake Erie shall include the qualifications and experience, roles and responsibilities, decision-making authority and reporting structure of each environmental inspector assigned to the Project that will be on site to monitor the effectiveness of erosion and sedimentation control measures, multi-functional barriers for wildlife exclusion, and any other applicable environmental mitigation measures that would be put in place during construction.</p> | <p>Environmental—Inspector <u>Environmental Compliance Manager Qualifications</u></p> <p>ITC Lake Erie shall file with the Board, at least fourteen (14) days prior to commencement of construction, confirmation that a qualified environmental inspector <u>compliance manager</u> shall be on site during construction. ITC Lake Erie shall include the qualifications and experience, roles and responsibilities, decision-making authority and reporting structure of each environmental inspector <u>compliance manager</u> assigned to the Project that will be on site to monitor the effectiveness of erosion and sedimentation control measures, multi-functional barriers for wildlife exclusion, and any other applicable environmental mitigation measures that would be put in place during construction.</p> | As stated in the draft EPP and in response to Information Response No. 7.8, the party responsible for inspections and compliance with the measures in the final EPP will be referred to as a qualified “Environmental Compliance Manager”. |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| 23. | <p>Qualified Aquatic Specialist</p> <p>ITC Lake Erie shall file with the Board, at least fourteen (14) days prior to the commencement of construction, confirmation that a qualified aquatic specialist shall be on site during construction. ITC Lake Erie shall include the qualifications and experience, roles and responsibilities, decision-making authority and reporting structure of each aquatic specialist assigned to the Project that will be on site during blasting activities and HDD.</p> | None | N/A |
| 24. | <p>Other Approvals and Permits</p> <p>ITC Lake Erie shall file with the Board, at least fourteen (14) days prior to commencement of construction, confirmation by an officer of ITC Lake Erie that all necessary approvals and permits have been obtained for the Project from the organizations listed in Section 4.4.2 of the Application - "Other Approvals and Permits". ITC Lake Erie shall also include in the filing any commitments made or requirements attached to any permits or approvals so issued.</p> | None | N/A |
| New | <p>Quantitative Estimation of Direct, Project-related Greenhouse Gas (GHG) Emissions from Construction</p> <p>ITC Lake Erie must file with the Board, at least ninety (90) days prior to the commencement of construction;</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-------------------------------------|---|-------------------|-----------|
| | <p>a) a quantitative estimation and assessment of greenhouse gas emissions expected to directly result from each activity, including clearing, during construction of the Project, including, but not limited to, emissions generated by vessels, vehicles, and equipment; and</p> <p>b) a description of the calculation methodology used in the estimation and assessment, the assumptions and inputs used, and any variables that may affect the results.</p> | | |
| New | <p>Transmission Contracts</p> <p>ITC Lake Erie shall file with the Board, at least sixty (60) days prior to the commencement of construction, confirmation that ITC Lake Erie has executed the necessary long-term transmission contracts for the Project.</p> | None | N/A |
| DURING AND POST CONSTRUCTION | | | |
| 25. | <p>Construction Progress Reports</p> <p>ITC Lake Erie shall file with the Board, at the end of each month during construction, construction progress reports. The reports shall include information on the activities carried out during the reporting period, as well as any environmental, safety and security issues and non-compliances that arose and the measures undertaken for the resolution of each issue and non-compliance. The first report shall include a schedule for</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | anticipated submission of each monthly report until construction is complete. | | |
| 26. | <p>Pre-Disturbance Bird Surveys</p> <p>In the event of construction or clearing activities within restricted activity periods for migratory birds, ITC Lake Erie shall:</p> <ul style="list-style-type: none"> a) retain a qualified avian biologist to carry out pre-construction surveys in accordance with Environment and Climate Change Canada's guidance to identify any migratory and other breeding birds and active nests in and around the Project site; and b) file with the Board, within fourteen (14) days post commencement of construction or clearing: <ul style="list-style-type: none"> b.1) the results of the surveys; b.2) a description of the mitigation, including monitoring, developed in consultation with government authorities, to protect any identified migratory and other breeding birds and their nests; and b.3) a letter of confirmation that ITC Lake Erie has consulted with the appropriate provincial and federal regulatory authorities in relation to matters set out in a), b.1), and b.2). | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|--|--|
| 27. | <p>Post-Construction Environmental Monitoring for Terrestrial Route</p> <p>ITC Lake Erie shall file with the Board, on or before 31 January of each of the first, second, and third growing seasons following completion of construction of the Project, a post-construction environmental monitoring report for the terrestrial portion of the Project that:</p> <ul style="list-style-type: none"> a) identifies any environmental issues that arose during construction or in the course of the previous year; b) describes the methodology used for monitoring, the criteria established for evaluating success and the results found; c) describes measures ITC Lake Erie has taken to correct the issues; d) describes current status of the issues in a) and whether the issues are resolved or unresolved; e) assesses the effectiveness of the mitigation (planned and corrective) measures applied against the criteria for success identified in b); and f) provides a schedule for and description of further proposed measures that ITC Lake Erie will take to address any issues identified and unresolved in a) and d). All filed post-construction environmental monitoring reports must address issues related, but not limited to, soils, weeds, wildlife and wildlife habitat, species at risk, and species of special concern. | <p>27. f) provides a schedule for and description of further proposed measures that ITC Lake Erie will take to address any issues identified and unresolved in a) and d). All filed post-construction environmental monitoring reports must address issues related, but not limited to soils <u>and</u> weed <u>management</u>. wildlife and wildlife habitat, species at risk, and species of special concern.</p> | <p>No effects have been identified on wildlife, wildlife habitat, species at risk and species of special concern in the post-construction period for the terrestrial portion of the Project, as documented in the Supplementary Evidence Filing of February 26, 2016, Attachment 2, Addendum Net Effects Assessment. As a result, no mitigation measures, monitoring approaches, criteria for evaluating success or measures to correct issues have been identified as being required for wildlife, wildlife habitat, species at risk and species of special concern in the post-construction period for the terrestrial portion of the Project.</p> |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| 28. | <p>In-Water Cable Burial Survey ITC Lake Erie shall file with the Board, within sixty (60) days after the completion of the in-water cable installation:</p> <ul style="list-style-type: none"> a) drawings and maps confirming the burial depth of the cable along the in-water cable route; b) a report that documents and communicates any locations where the cable installation did not reach the minimum burial depth as identified by ITC Lake Erie; c) a description of how ITC Lake Erie mitigated the risks associated with shallower than planned burial depths, where encountered; and d) an impact analysis of any mitigation measures taken in response to burial depths shallower than the minimum burial depth, including the locations identified, mitigation measures taken and the impact of the applied mitigation. | None | N/A |
| 29. | <p>Anchor Drops and Cable Integrity ITC Lake Erie shall file with the Board, within sixty (60) days after the completion of the in-water cable installation:</p> <ul style="list-style-type: none"> a) a list of any anchor drop risk areas identified along the Canadian portion of the cable route; b) a list of the appropriate Canadian authorities that have been notified of | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|---------------------------|--|-------------------|-----------|
| | such risks; and c) a letter of confirmation that ITC Lake Erie has communicated to those authorities the locations of the identified anchor drop risks and of the areas where cable burial is less than the minimum burial depth as identified by ITC Lake Erie. | | |
| 30. | Excavation Safety ITC Lake Erie shall perform all excavations along the cable route in accordance with applicable occupational health and safety legislation. ITC Lake Erie shall file with the Board, within sixty (60) days of the completion of construction , a report detailing any construction activities that did not comply with the applicable occupational health and safety legislation. | None | N/A |
| PRIOR TO OPERATION | | | |
| 31. | Operations and Maintenance Manual ITC Lake Erie shall file with the Board, at least sixty (60) days prior to the commencement of operations , an Operations and Maintenance Manual for the ITC Lake Erie electrical system. The Manual shall require ITC Lake Erie to conduct documented audits of its records and inspections of the ITC Lake Erie electrical system and right of way to confirm ITC Lake Erie's conformity to the requirements of the Manual. The Manual shall also include a schedule or procedure for its yearly review and update, as appropriate, | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| | <p>to remain current with regulatory requirements and accepted industry practice. The Manual, and the programs and procedures on ITC Lake Erie's records as required by the Manual, shall be made available to the Board for periodic review. The Manual should include, but not be limited to:</p> <ul style="list-style-type: none"> a) type of maintenance followed by ITC Lake Erie; b) maintenance schedules according to the selected maintenance practice; c) operational procedures for steady state and transient conditions; d) maintenance and monitoring requirements and plans for the power line (terrestrial and in-water cable) and the Haldimand Converter Station; e) a public awareness program for the life of the Project that: <ul style="list-style-type: none"> e.1) promotes public awareness of ongoing hazards associated with the Project; and e.2) provides contact numbers for the public to report issues and concerns; f) vegetation control plans and procedures for the power line's right-of-way and the Haldimand Converter Station footprint; g) training requirements for personnel implementing the Manual; and | | |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| | h) the maintenance and operations records that will be produced during operations, including during the performance of maintenance tasks and routine inspections. | | |
| 32. | <p>Operations Safety Manuals</p> <p>ITC Lake Erie shall file with the Board, at least ninety (90) days prior to the commencement of operations:</p> <p>a) safety manuals related to the operation activities of the Project. The manuals must address routine operation procedures, activities, and public safety issues that might be encountered during the operation of the:</p> <p>a.1) terrestrial and in-water cables; and</p> <p>a.2) Haldimand Converter Station;</p> <p>b) an outline of the safety training program to be implemented for the operation of the Project.</p> | None | N/A |
| 33. | <p>Abandonment Funding</p> <p>ITC Lake Erie shall file with the Board for approval, at least ninety (90) days prior to the date the Project is placed in service, a mechanism to set aside funds for the future abandonment of the Project that is consistent with the principles for set-aside mechanisms set out in the Board's MH-001-2013 Reasons for Decision dated 29 May 2014, and specifically chapters 2.9, 3.4, 5.2.2, and 5.2.4,</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-------------------|---|-------------------|-----------|
| | and appendices VII, XI, and XII. The set-aside mechanism shall reflect the abandonment cost estimate ITC Lake Erie filed in its evidence. | | |
| DURING OPERATIONS | | | |
| 34. | <p>Operation of High Voltage Direct Current (HVDC) Transmission Line and Converter Station (HVDC Link)</p> <p>a) ITC Lake Erie shall operate the HVDC Link as per design and specifications consistent with the electrical reliability standards applicable to the Project; and</p> <p>b) ITC Lake Erie shall inform the Board of any operational deviation from design and specifications, within forty-eight (48) hours of such operational deviation occurring, and shall file with the Board, within sixty (60) days after the operational deviation has occurred, a written report that shall include:</p> <p>b.1) the reasons why the deviation occurred;</p> <p>b.2) analysis of potential negative implications of the deviation to the HVDC Link; and</p> <p>b.3) mitigation strategies for the implications identified in paragraph b.2) and when the mitigation was or will be implemented.</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|--|-------------------|-----------|
| 35. | <p>Operation of Alternating Current (AC) Transmission Line</p> <p>a) ITC Lake Erie's AC portion of the power line shall be operated within the range of 490 kilovolts (kV) to 550kV; and</p> <p>b) ITC Lake Erie shall inform the Board of any deviation from this range, within forty-eight (48) hours of such deviation occurring, and shall file with the Board, within sixty (60) days after the deviation has occurred, a written report that shall include:</p> <p>b.1) the reasons why the deviation occurred;</p> <p>b.2) analysis of potential negative implications of the deviation to the AC transmission line; and</p> <p>b.3) mitigation strategies for the implications identified in paragraph b.2) and when the mitigation was or will be implemented.</p> | None | N/A |
| 36. | <p>Compliance Reporting</p> <p>ITC Lake Erie shall file with the Board, within thirty (30) days of the date that the approved Project is placed in service, a confirmation, by an officer of ITC Lake Erie, that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be</p> | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| | confirmed, the officer of ITC Lake Erie shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of ITC Lake Erie. | | |
| 37. | <p>Annual Filing Requirements</p> <p>ITC Lake Erie shall file with the Board, prior to 31 January, on an annual basis, the following information:</p> <ul style="list-style-type: none"> a) confirmation that ITC Lake Erie is still the owner and operator of the Project and the current contact information for ITC Lake Erie including: <ul style="list-style-type: none"> a.1) corporate headquarters street and mailing address; a.2) phone number; a.3) fax number; a.4) email address; a.5) the name and job title of an officer of ITC Lake Erie for the Board to serve documents on as required; and a.6) the name and job title of a secondary contact at ITC Lake Erie; b) current insurance certificate(s) and updated details regarding the insurance and other financial instruments such as promissory note, line of credit, letter of credit or parental guarantees held by | None | N/A |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| | <p>ITC Lake Erie to address its financial resource requirement that will enable ITC Lake Erie to respond to and cover any potential costs associated with a potential Project incident of at least \$15 million;</p> <p>c) demonstration of readily accessible financial requirements for funds of at least \$1.5 million using acceptable financial instruments such as cash on hand, secured line of credit or letter of credit;</p> <p>d) reporting of the accrued finances for the set-aside of abandonment funds;</p> <p>e) a filing that complies with the provisions of Board Order MO-036-2012 electric reliability;</p> <p>f) import and export flow data organized by month for the previous calendar year;</p> <p>g) demonstration of readily accessible financial requirements for funds of at least \$1.5 million using acceptable financial instruments such as cash on hand, secured line of credit or letter of credit;</p> <p>h) reporting of the accrued finances for the set-aside of abandonment funds;</p> <p>i) a filing that complies with the provisions of Board Order MO-036-2012 electric reliability;</p> <p>j) import and export flow data organized</p> | | |

| DRAFT CONDITION | | PROPOSED REVISION | RATIONALE |
|-----------------|---|-------------------|-----------|
| | <p>by month for the previous calendar year;</p> <p>k) an updated commitments tracking table as per condition 5;</p> <p>l) the amount of contracted supply in megawatts by type of generation source (where possible); and</p> <p>m) confirmation that no changes were made to ITC Lake Erie's compliance program, safety manual, or operations and maintenance manual. If any changes have been made ITC Lake Erie is to provide a rationale and description of the change(s) if not already provided to the Board.</p> | | |

REFERENCES TO FOOTNOTES

| Footnote No. | Tab No. | Reference |
|--------------|---------|---|
| Footnote 1 | Tab 1 | National Energy Board Act (R.S.C., 1985, c. N-7), Section 58.16 |
| Footnote 2 | Tab 2 | The Constitution Act, 1982, Schedule B to the Canada Act 1982 (UK), 1982, c 11, Section 35 |
| Footnote 3 | Tab 3 | Canadian Environmental Assessment Act, 2012 (S.C. 2012, c. 19, s. 52) |
| Footnote 4 | Tab 1 | National Energy Board Act (R.S.C., 1985, c. N-7), Section 58.16 |
| Footnote 5 | Tab 4 | NEB, Decisions and Recommendations, Enbridge Pipelines Inc., OH-002-2015 (Apr 2016)(Enbridge Line 3 Replacement Decision), Vol I, pp. 3 |
| Footnote 5 | Tab 5 | NEB, Report and Recommendations, Trans Mountain Expansion Project, OH-001-2014 (May 2016) pp. 13 |
| Footnote 5 | Tab 6 | NEB, Reasons for Decision, TransCanada Keystone Pipeline GP Ltd., OH-1-2009, (Sept 2007) pp. 78 |
| Footnote 6 | Tab 7 | Enbridge Line 3 Replacement Decision Vol. II, pp. 8 |
| Footnote 6 | Tab 8 | NEB Trans Mountain Expansion Decision, pp. 293 |
| Footnote 7 | Tab 9 | Reasons for Decision, Sea Breeze Victoria Converter Corporation, EH-1-2006, pp. 9-10 |
| Footnote 8 | Tab 10 | Department of Energy - Presidential Permits - Procedures |
| Footnote 8 | Tab 11 | ITC Lake Erie Connector LLC, 148 FERC 61,236 (2014), at pp. 2 and 7 |
| Footnote 9 | Tab 12 | Reasons for Decision, TransCanada Keystone Pipeline GP Ltd., OH-1-2007 (Sep 2007), pp. 55 |
| Footnote 9 | Tab 13 | Reasons for Decision, Enbridge Pipelines Inc., OH-04-2007 (Feb 2008), pp. 65 |
| Footnote 10 | Tab 14 | NEB Decision in Montana Alberta Tie Line (MATL) Application for Permit to Construct and Operate an IPL, File OF-Fac-IPL-M159-2005 01. pp. 4-5 |
| Footnote 11 | Tab 15 | NEB Decision in Montana Alberta Tie Line (MATL) Application for Permit to Construct and Operate an IPL, File OF-Fac-IPL-M159-2005 01 pp. 5-6 |
| Footnote 12 | Tab 16 | Review of Ontario Interties, Oct 2014, pp. 4 |

TAB 1



CANADA

CONSOLIDATION

CODIFICATION

National Energy Board Act

Loi sur l'Office national de l'énergie

R.S.C., 1985, c. N-7

L.R.C. (1985), ch. N-7

Current to June 21, 2016

À jour au 21 juin 2016

Last amended on June 19, 2016

Dernière modification le 19 juin 2016

OFFICIAL STATUS OF CONSOLIDATIONS

Subsections 31(1) and (2) of the *Legislation Revision and Consolidation Act*, in force on June 1, 2009, provide as follows:

Published consolidation is evidence

31 (1) Every copy of a consolidated statute or consolidated regulation published by the Minister under this Act in either print or electronic form is evidence of that statute or regulation and of its contents and every copy purporting to be published by the Minister is deemed to be so published, unless the contrary is shown.

Inconsistencies in Acts

(2) In the event of an inconsistency between a consolidated statute published by the Minister under this Act and the original statute or a subsequent amendment as certified by the Clerk of the Parliaments under the *Publication of Statutes Act*, the original statute or amendment prevails to the extent of the inconsistency.

NOTE

This consolidation is current to June 21, 2016. The last amendments came into force on June 19, 2016. Any amendments that were not in force as of June 21, 2016 are set out at the end of this document under the heading “Amendments Not in Force”.

CARACTÈRE OFFICIEL DES CODIFICATIONS

Les paragraphes 31(1) et (2) de la *Loi sur la révision et la codification des textes législatifs*, en vigueur le 1^{er} juin 2009, prévoient ce qui suit :

Codifications comme élément de preuve

31 (1) Tout exemplaire d'une loi codifiée ou d'un règlement codifié, publié par le ministre en vertu de la présente loi sur support papier ou sur support électronique, fait foi de cette loi ou de ce règlement et de son contenu. Tout exemplaire donné comme publié par le ministre est réputé avoir été ainsi publié, sauf preuve contraire.

Incompatibilité — lois

(2) Les dispositions de la loi d'origine avec ses modifications subséquentes par le greffier des Parlements en vertu de la *Loi sur la publication des lois* l'emportent sur les dispositions incompatibles de la loi codifiée publiée par le ministre en vertu de la présente loi.

NOTE

Cette codification est à jour au 21 juin 2016. Les dernières modifications sont entrées en vigueur le 19 juin 2016. Toutes modifications qui n'étaient pas en vigueur au 21 juin 2016 sont énoncées à la fin de ce document sous le titre « Modifications non en vigueur ».

Exception

(2) No order may be made under subsection (1) in respect of a line more than forty-five days after the issuance of a permit in respect of the line.

Effect of order

(3) Where an order is made under subsection (1),

- (a)** no permit shall be issued in respect of the line; and
- (b)** any application in respect of the line shall be dealt with as an application for a certificate.

1990, c. 7, s. 23.

Issuance

58.16 (1) The Board may, subject to section 24 and to the approval of the Governor in Council, issue a certificate in respect of

- (a)** an international power line in relation to which an order made under section 58.15 is in force,
- (b)** an international power line in relation to which an election is filed under section 58.23, or
- (c)** an interprovincial power line in relation to which an order made under section 58.4 is in force,

if the Board is satisfied that the line is and will be required by the present and future public convenience and necessity.

Criteria

(2) In deciding whether to issue a certificate, the Board shall have regard to all considerations that appear to it to be directly related to the line and relevant.

Revocation of permit

(3) Any permit issued in respect of an international power line in relation to which an order made under section 58.15 is in force and that is not revoked by the order is revoked on the Board's deciding not to issue a certificate in respect of the line.

Time limit

(4) The Board shall, within the time limit specified by the Chairperson,

- (a)** decide that the certificate should be issued and recommend to the Minister that the Governor in Council approve the issuance of the certificate; or
- (b)** decide that no certificate is to be issued and dismiss the application in respect of the line.

Précision

(2) La prise du décret ne peut survenir plus de quarante-cinq jours après la délivrance du permis pour la ligne.

Effet du décret

(3) Le décret emporte l'impossibilité de délivrer tout permis pour la ligne et l'assimilation de toute demande la visant à une demande de certificat.

1990, ch. 7, art. 23.

Délivrance

58.16 (1) Sous réserve de l'agrément du gouverneur en conseil et de l'article 24, l'Office peut, s'il est convaincu de son caractère d'utilité publique, tant pour le présent que pour le futur, délivrer un certificat pour une ligne internationale visée par un décret ou une décision pris au titre des articles 58.15 ou 58.23 ou d'une ligne interprovinciale visée par un décret pris au titre de l'article 58.4.

Critères

(2) Pour déterminer s'il y a lieu de délivrer un certificat, l'Office tient compte de tous les facteurs qu'il estime directement liés à la ligne et pertinents.

Annulation

(3) La décision de l'Office de ne pas délivrer de certificat à l'égard d'une ligne internationale ainsi visée par un décret emporte l'annulation de tout permis la visant que le décret n'a pas annulé.

Délais

(4) L'Office doit, dans le délai fixé par le président :

- a)** soit décider que le certificat devrait être délivré et recommander au ministre que le gouverneur en conseil donne son agrément à la délivrance du certificat;
- b)** soit décider que le certificat ne sera pas délivré et rejeter la demande visant la ligne.

Maximum time limit and obligation to make it public

(5) The time limit specified by the Chairperson must be no longer than 15 months after the day on which the applicant has, in the Board's opinion, provided a complete application. The Board shall make the time limit public.

Environmental assessment

(6) If the application relates to a designated project within the meaning of section 2 of the *Canadian Environmental Assessment Act, 2012*, the Board shall also, within the time limit,

(a) prepare a report, as required by paragraph 22(b) of that Act, with respect to its environmental assessment of the designated project; and

(b) comply with subsection 27(1) of that Act with respect to that assessment.

Excluded period

(7) If the Board requires the applicant to provide information or undertake a study with respect to the line and the Board, with the Chairperson's approval, states publicly that this subsection applies, the period that is taken by the applicant to comply with the requirement is not included in the calculation of the time limit.

Public notice of excluded period

(8) The Board shall make public the dates of the beginning and ending of the period referred to in subsection (7) as soon as each of them is known.

Extension

(9) The Minister may, by order, extend the time limit by a maximum of three months. The Governor in Council may, on the recommendation of the Minister, by order, further extend the time limit by any additional period or periods of time.

Time limit — Governor in Council

(10) If the Board makes the recommendation referred to in paragraph (4)(a), the Governor in Council may, within three months after the making of that recommendation, either approve the issuance of the certificate or refuse to approve its issuance. The Governor in Council may extend the time limit for doing so for any additional period or periods of time.

Obligation of Board

(11) If the Governor in Council approves the issuance of the certificate, the Board shall, within seven days after the day on which the approval was given, issue the certificate and comply with subsection 54(1) of the *Canadian Environmental Assessment Act, 2012*.

Restriction et publicité

(5) Le délai fixé par le président ne peut excéder quinze mois suivant la date où le demandeur a, de l'avis de l'Office, complété la demande. Le délai est rendu public par l'Office.

Évaluation environnementale

(6) Si la demande vise un projet désigné au sens de l'article 2 de la *Loi canadienne sur l'évaluation environnementale (2012)*, l'Office est aussi tenu, dans le même délai :

a) d'une part, d'établir le rapport d'évaluation environnementale relatif au projet exigé par l'alinéa 22b) de cette loi;

b) d'autre part, de se conformer au paragraphe 27(1) de cette loi à l'égard de cette évaluation.

Période exclue du délai

(7) Si l'Office exige du demandeur, relativement à la ligne, la communication de renseignements ou la réalisation d'études et déclare publiquement, avec l'approbation du président, que le présent paragraphe s'applique, la période prise par le demandeur pour remplir l'exigence n'est pas comprise dans le calcul du délai.

Avis publics – période exclue

(8) L'Office rend publiques, sans délai, la date où commence la période visée au paragraphe (7) et celle où elle se termine.

Prorogations

(9) Le ministre peut, par arrêté, proroger le délai imposé à l'Office pour un maximum de trois mois. Le gouverneur en conseil peut, par décret pris sur la recommandation du ministre, accorder une ou plusieurs prorogations supplémentaires.

Délais — gouverneur en conseil

(10) Si l'Office fait la recommandation visée à l'alinéa (4)a), le gouverneur en conseil peut donner son agrément à la délivrance du certificat ou refuser de le faire dans les trois mois de cette recommandation. Le gouverneur en conseil peut proroger ce délai une ou plusieurs fois.

Obligation de l'Office

(11) Si le gouverneur en conseil donne son agrément, l'Office est tenu, dans les sept jours suivant la date de l'agrément, de délivrer le certificat et de se conformer au paragraphe 54(1) de la *Loi canadienne sur l'évaluation environnementale (2012)*.

Continuation of jurisdiction and obligation

(12) A failure by the Board to comply with subsection (4) within the required time limit does not affect its jurisdiction to deal with the application or its obligation to make a decision as to whether a certificate should be issued or to dismiss the application, and anything done by it in relation to the application remains valid.

Governor in Council's power

(13) Despite subsection (10), the Governor in Council may approve the issuance of the certificate or refuse to approve its issuance after the expiry of the time limit for doing so.

1990, c. 7, s. 23; 2012, c. 19, s. 85.

Location and Construction under Provincial Law

Provincial regulatory agency

58.17 The lieutenant governor in council of a province may designate as the provincial regulatory agency the lieutenant governor in council of the province, a provincial minister of the Crown or any other person or a board, commission or other tribunal.

1990, c. 7, s. 23.

Application

58.18 Sections 58.2 and 58.21 apply only in respect of those portions of international power lines that are within a province in which a provincial regulatory agency is designated under section 58.17 but do not apply in the case of international power lines in respect of which an election is filed under section 58.23.

1990, c. 7, s. 23.

Definition of provincial laws

58.19 For the purposes of sections 58.2, 58.21 and 58.22, a law of a province is in relation to lines for the transmission of electricity from a place in the province to another place in the province if the law is in relation to any of the following matters:

- (a)** the determination of their location or detailed route;
- (b)** the acquisition of land required for the purposes of those lines, including its acquisition by expropriation, the power to so acquire land and the procedure for so acquiring it;
- (c)** assessments of their impact on the environment;

Maintien de l'obligation et de la compétence

(12) Le défaut de l'Office de se conformer au paragraphe (4) dans le délai fixé ne porte atteinte ni à sa compétence à l'égard de la demande en cause ni à son obligation de décider si le certificat devrait être délivré ni à la validité des actes posés à l'égard de la demande en cause.

Pouvoir du gouverneur en conseil

(13) Malgré le paragraphe (10), le gouverneur en conseil peut donner son agrément à la délivrance du certificat ou refuser de le faire même une fois le délai pour le faire expiré.

1990, ch. 7, art. 23; 2012, ch. 19, art. 85.

Emplacement et construction régis par loi provinciale

Autorité régulatrice

58.17 Le lieutenant-gouverneur en conseil d'une province peut se désigner autorité régulatrice provinciale ou encore désigner soit tout ministre provincial, ou toute autre personne, soit tout organisme administratif.

1990, ch. 7, art. 23.

Application

58.18 Les articles 58.2 et 58.21 s'appliquent aux sections intraprovinciales des lignes internationales dans la mesure où une autorité a été désignée en application de l'article 58.17 mais non aux lignes internationales visées par une décision prise au titre de l'article 58.23.

1990, ch. 7, art. 23.

Définition de loi provinciale

58.19 Pour l'application des articles 58.2, 58.21 et 58.22, concerne les lignes intraprovinciales de transport d'électricité toute loi provinciale qui a pour objet :

- a)** la détermination de l'emplacement ou du tracé des lignes;
- b)** l'acquisition, y compris par expropriation, des terrains nécessaires à leur exploitation et les modalités de leur acquisition;
- c)** l'évaluation de leur impact sur l'environnement;
- d)** la protection de l'environnement contre les conséquences de leur construction, et l'atténuation de celles-ci;

TAB 2

00:03:40



The Constitution Act, 1982, Schedule B to the Canada Act 1982 (UK), 1982, c 11

Current version: in force since Apr 17, 1985

Link to the latest <http://canlii.ca/t/8q7l>

version:

Stable link to this <http://canlii.ca/t/ldsx>

version:

Citation to this The Constitution Act, 1982, Schedule B to the Canada Act 1982 (UK), 1982, c 11,

version: <<http://canlii.ca/t/ldsx>> retrieved on 2016-08-10

Currency: Last updated from the Justice Laws Web Site on 2016-08-03

☐ Collapse All

☐ **PART I CANADIAN CHARTER OF RIGHTS AND FREEDOMS [1. - 34.]**

☐ *GUARANTEE OF RIGHTS AND FREEDOMS* [1.]

1. Rights and freedoms in Canada

☐ *FUNDAMENTAL FREEDOMS* [2.]

2. Fundamental freedoms

☐ *DEMOCRATIC RIGHTS* [3. - 5.]

3. Democratic rights of citizens

4.(1) Maximum duration of legislative bodies

4.(2) Continuation in special circumstances

5. Annual sitting of legislative bodies

☐ *MOBILITY RIGHTS* [6.]

6.(1) Mobility of citizens

6.(2) Rights to move and gain livelihood

6.(3) Limitation

6.(4) Affirmative action programs

☐ *LEGAL RIGHTS* [7. - 14.]

7. Life, liberty and security of person

8. Search or seizure

9. Detention or imprisonment

10. Arrest or detention

11. Proceedings in criminal and penal matters

12. Treatment or punishment

13. Self-crimination

14. Interpreter

**Five year
limitation**

(3) A declaration made under subsection (1) shall cease to have effect five years after it comes into force or on such earlier date as may be specified in the declaration.

Re-enactment

(4) Parliament or the legislature of a province may re-enact a declaration made under subsection (1).

**Five year
limitation**

(5) Subsection (3) applies in respect of a re-enactment made under subsection (4).

Citation**Citation**

34. This Part may be cited as the *Canadian Charter of Rights and Freedoms*.

PART II**RIGHTS OF THE ABORIGINAL PEOPLES OF CANADA****Recognition of
existing
aboriginal and
treaty rights****35.**

(1) The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

**Definition of
"aboriginal
peoples of
Canada"**

(2) In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Métis peoples of Canada.

**Land claims
agreements**

(3) For greater certainty, in subsection (1) "treaty rights" includes rights that now exist by way of land claims agreements or may be so acquired.

**Aboriginal and
treaty rights are
guaranteed
equally to both
sexes**

(4) Notwithstanding any other provision of this Act, the aboriginal and treaty rights referred to in subsection (1) are guaranteed equally to male and female persons.

**Commitment to
participation in
constitutional
conference****35.1**

The government of Canada and the provincial governments are committed to the principle that, before any amendment is made to Class 24 of section 91 of the "*Constitution Act, 1867*", to section 25 of this Act or to this Part,

- (a) a constitutional conference that includes in its agenda an item relating to the proposed amendment, composed of the Prime Minister of Canada and the first ministers of the provinces, will be convened by the Prime Minister of Canada; and
- (b) the Prime Minister of Canada will invite representatives of the aboriginal peoples of Canada to participate in the discussions on that item.

TAB 3



CANADA

CONSOLIDATION

CODIFICATION

Canadian Environmental Assessment Act, 2012

Loi canadienne sur l'évaluation environnementale (2012)

S.C. 2012, c. 19, s. 52

L.C. 2012, ch. 19, art. 52

NOTE

[Enacted by section 52 of chapter 19 of the
Statutes of Canada, 2012, in force July 6, 2012, *see*
SI/2012-56.]

NOTE

[Édictée par l'article 52 du chapitre 19 des Lois du
Canada (2012), en vigueur le 6 juillet 2012, *voir* TR/
2012-56.]

Current to June 21, 2016

À jour au 21 juin 2016

Last amended on December 31, 2014

Dernière modification le 31 décembre 2014

OFFICIAL STATUS OF CONSOLIDATIONS

Subsections 31(1) and (2) of the *Legislation Revision and Consolidation Act*, in force on June 1, 2009, provide as follows:

Published consolidation is evidence

31 (1) Every copy of a consolidated statute or consolidated regulation published by the Minister under this Act in either print or electronic form is evidence of that statute or regulation and of its contents and every copy purporting to be published by the Minister is deemed to be so published, unless the contrary is shown.

Inconsistencies in Acts

(2) In the event of an inconsistency between a consolidated statute published by the Minister under this Act and the original statute or a subsequent amendment as certified by the Clerk of the Parliaments under the *Publication of Statutes Act*, the original statute or amendment prevails to the extent of the inconsistency.

NOTE

This consolidation is current to June 21, 2016. The last amendments came into force on December 31, 2014. Any amendments that were not in force as of June 21, 2016 are set out at the end of this document under the heading “Amendments Not in Force”.

CARACTÈRE OFFICIEL DES CODIFICATIONS

Les paragraphes 31(1) et (2) de la *Loi sur la révision et la codification des textes législatifs*, en vigueur le 1^{er} juin 2009, prévoient ce qui suit :

Codifications comme élément de preuve

31 (1) Tout exemplaire d'une loi codifiée ou d'un règlement codifié, publié par le ministre en vertu de la présente loi sur support papier ou sur support électronique, fait foi de cette loi ou de ce règlement et de son contenu. Tout exemplaire donné comme publié par le ministre est réputé avoir été ainsi publié, sauf preuve contraire.

Incompatibilité — lois

(2) Les dispositions de la loi d'origine avec ses modifications subséquentes par le greffier des Parlements en vertu de la *Loi sur la publication des lois* l'emportent sur les dispositions incompatibles de la loi codifiée publiée par le ministre en vertu de la présente loi.

NOTE

Cette codification est à jour au 21 juin 2016. Les dernières modifications sont entrées en vigueur le 31 décembre 2014. Toutes modifications qui n'étaient pas en vigueur au 21 juin 2016 sont énoncées à la fin de ce document sous le titre « Modifications non en vigueur ».

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| 9 | Posting of description of designated project and public notice on Internet site |
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| 13 | Activities regulated by regulatory body |
| 14 | Designation of physical activity as designated project |

TABLE ANALYTIQUE

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|----|--|
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| 2 | Définitions |
| | Sa Majesté |
| 3 | Sa Majesté |
| | Objet |
| 4 | Objet |
| | Effets environnementaux |
| 5 | Effets environnementaux |
| | Interdictions |
| 6 | Promoteur |
| 7 | Autorité fédérale |
| | Examen préalable |
| 8 | Obligation des promoteurs — description du projet désigné |
| 9 | Description et avis affichés sur le site Internet |
| 10 | Examen préalable et décision |
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| | Évaluation environnementale obligatoire |
| 13 | Activités régies par un organisme exerçant des fonctions de réglementation |
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|---|---|--|---|
| | Responsible Authority | | Autorité responsable |
| 15 | Responsible authority | 15 | Autorité responsable |
| 16 | Cooperation | 16 | Coopération |
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| 17 | Posting of notice on Internet site | 17 | Avis |
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| 18 | Responsible authority's or Minister's obligations | 18 | Obligation de l'autorité responsable ou du ministre |
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| | Section 54 of the National Energy Board Act | | Article 54 de la Loi sur l'Office national de l'énergie |
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| 30 | Order to reconsider | 30 | Décret ordonnant un réexamen |
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| 34 | Conditions | 34 | Conditions |
| 35 | Assessment considered in conformity | 35 | Évaluation réputée conforme |
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| Equivalent Assessment | | Évaluations équivalentes | |
|-----------------------|--|--------------------------|---|
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| 54 | Decision statement issued to proponent | 54 | Déclaration remise au promoteur |
| 55 | Posting of decision statement on Internet site | 55 | Déclarations affichées sur le site Internet |
| 56 | Decision statement considered part of licence under Nuclear Safety and Control Act | 56 | Présomption — Loi sur la sûreté et la réglementation nucléaires |
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National Energy
Board

Office national
de l'énergie

National Energy Board Report

Enbridge Pipelines Inc.

OH-002-2015

**Volume I: Our Decisions and
Recommendations**

April 2016

Facilities

Canada

National Energy Board

National Energy Board Report

In the Matter of

Enbridge Pipelines Inc.

Application dated 5 November 2014 for the
Line 3 Replacement Project

OH-002-2015

**Volume I: Our Decisions and
Recommendations**

April 2016

1.3 The Role of the National Energy Board

The NEB is an independent federal regulator of several parts of Canada's energy industry, with the safety of Canadians and protection of the environment as its top priorities. The NEB's purpose is to regulate pipelines, energy development and trade in the Canadian public interest.

This application requires the Board to make recommendations and decisions in respect of the Project under the NEB Act, CEAA 2012, and the *National Energy Board Onshore Pipeline Regulations* (OPR).

The NEB Act requires the Board to determine whether the Project is in the overall Canadian public interest. The Board describes the public interest as being inclusive of all Canadians: it refers to a balance of environmental, economic and social considerations that evolve as society's values and preferences evolve over time. Determining whether the Project is in the public interest involves an exercise of discretion and requires a balancing of the benefits and burdens associated with the Project.

Assessing the potential environmental and socio-economic effects of the Project is an important part of the Board's public interest determination under the NEB Act. The Board also has the responsibility to conduct an environmental assessment of the Project under CEAA 2012. The Board examines the potential effects the Project could have on people and the environment, and how these effects could be mitigated. The Board then assesses the significance of those effects that are predicted to remain after mitigation is applied.

Another important part of the Board's public interest determination is its evaluation of the sufficiency of Enbridge's consultation with those potentially affected by the Project.

Lastly, the Board decides what conditions it will impose on the Project in the public interest and to mitigate potential adverse effects.

The Board reached its recommendations and decisions on the Project after a careful assessment of the evidence filed on the record of the hearing. The Board's hearings are public and are designed to be meaningful, fair and efficient. The Board assesses project applications in a quasi-judicial manner, independent from government, industry, and other stakeholders.

As stated above, the NEB is a lifecycle regulator and will maintain continual regulatory oversight of the Project. The Board will monitor compliance with, and enforce, Project-specific conditions and other regulatory requirements going forward.

TAB 5

National Energy
Board



Office national
de l'énergie

Canada

National Energy Board Report

Trans Mountain
Expansion Project

May 2016



National Energy Board Report

Trans Mountain Expansion Project

May 2016

OH-001-2014



Benefits, burdens and the National Energy Board Recommendation

This chapter provides the Board's assessment of the overall benefits and burdens of the Trans Mountain Expansion Project (Project) in relation to its recommendation under section 52, Part III of the *National Energy Board Act* (NEB Act). This chapter also summarizes the Board's findings and recommendations in relation to the Project under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), and decisions related to certain Project facilities pursuant to s. 58 of the NEB Act and the *National Energy Board Onshore Pipeline Regulations* (OPR).

2.1 The Board's mandate

Section 52 of the NEB Act requires the Board to make a recommendation to the Governor in Council (GIC) on whether to approve the Project. In making its section 52 recommendation, the Board must have regard to all considerations that appear to be directly related and relevant to that project. The NEB Act provides the Board with flexibility and broad powers, but the Board must interpret and implement the Act in ways that serve the Canadian public interest.

Part III of the NEB Act provides a test for the Board to apply when making its assessment of a project and providing its recommendation to the GIC. When applying the "present and future public convenience and necessity" test under Part III of the NEB Act, the Board makes a recommendation in the overall Canadian "public interest". In its consideration of an application, the Board is required to weigh all relevant evidence on the record and come to a recommendation whether, overall, the project is in the public interest. This is referred to in the NEB Act as the present and future public convenience and necessity.

The Board has described the public interest in the following terms:

The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.¹⁰

¹⁰ NEB Reasons for Decision, Emera Brunswick Pipeline Company Ltd., GH-1-2006.

TAB 6



National Energy
Board

Office national
de l'énergie

Reasons for Decision

**TransCanada Keystone
Pipeline GP Ltd.**

OH-1-2009

March 2010

Facilities and Toll Methodology

Canada

National Energy Board

Reasons for Decision

In the Matter of

TransCanada Keystone Pipeline GP Ltd.

Section 52 Application dated 27 February 2009
for the Keystone XL Pipeline Project

OH-1-2009

March 2010

Chapter 11

The Board's Public Interest Determination

11.1 The Canadian Public Interest

The Board promotes safety and security, environmental protection and efficient energy infrastructure in the Canadian public interest in its regulation of pipelines, international power lines and energy development. With respect to the Keystone XL application, it is the role of the Board to determine if the Project is in the public convenience and necessity pursuant to section 52 of the Act.

In making this determination the Board has regard to all considerations that appear to it to be relevant, including any public interest that may be affected by the granting or the refusing of the application. The Act provides the Board with flexibility and broad powers, but the Board must interpret and implement the Act in ways that serve the Canadian public interest.

All issues and concerns before the Board were considered in the context of the entire lifecycle of the Project (i.e., design, planning, construction, operation, decommissioning and abandonment).

The Board has described the public interest in the following terms:

The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.⁵

Under the NEB Act, the factors to be considered and the criteria to be applied in coming to a decision on whether a project is in the present and future public convenience and necessity may vary with the specific application, including the nature of the proposed project, its location, the commodity involved, the various segments of the public affected by the decision, and the purpose of the applicable section of the NEB Act.

When applying the “present and future public convenience and necessity” test under Part III of the NEB Act, the Board is required to identify and weigh all relevant evidence on the record and come to a determination whether the project is in the public interest and the present and future public convenience and necessity. There are typically both benefits and burdens associated with each application and the Board must apply its reasoned judgment, based upon a considered analysis of the evidence properly before it, to come to its final determination.

Section 11.2 provides the Board's assessment of the overall benefits and burdens of the Keystone XL Pipeline in relation to its decision under section 52 of the NEB Act.

5 GH-1-2006 Reasons for Decision dated May 2007, Chapter 2, page 10.

TAB 7



National Energy
Board

Office national
de l'énergie

National Energy Board Report

Enbridge Pipelines Inc.

OH-002-2015

Volume II: Our Detailed Assessment

April 2016

Facilities

Canada

National Energy Board

National Energy Board Report

In the Matter of

Enbridge Pipelines Inc.

Application dated 5 November 2014 for the
Line 3 Replacement Program

OH-002-2015

Volume II: Our Detailed Assessment

April 2016

Chapter 2

Economic Feasibility

2.1 Introduction

In making a recommendation on an application under section 52 of the NEB Act or a decision under section 58 of the NEB Act, the Board makes a determination regarding the economic feasibility of the project, after assessing the need for the proposed facility and the likelihood of it being used at a reasonable level over its economic life. To make this determination, the Board considers the supply of oil that will be available to be shipped on the pipeline, any transportation contracts underpinning a pipeline, and the availability of adequate markets to receive oil delivered by a pipeline.

The Board also considers other commercial impacts of the proposed facilities and the Applicant's ability to finance the construction and ongoing operation and maintenance of the proposed pipeline.

2.2 Need for Facilities

2.2.1 Oil Supply

Views of Enbridge

In its Application, Enbridge referenced the Board's June 2014 Canadian Energy Outlook (CEO) briefing note as well as statistics from the U.S. Energy Information Administration (EIA), to portray Canada's oil reserves as robust. Enbridge submitted that the 2014 CEO estimated Canadian oil and bitumen remaining established reserves to be 27.4 billion m³ (171.3 billion bbl). Further, Enbridge added that, according to the EIA, Canada ranks third amongst the world in estimated remaining established reserves of oil and bitumen. Enbridge submitted that approximately 98% of these established reserves are located in Alberta's oil sands and, to date, approximately 95% of Alberta's oil sands have yet to be developed.

Regarding future crude oil supply, in its Application, Enbridge cited the 2014 CAPP *Crude Oil Forecast, Markets & Pipelines* report as well as the Alberta Energy Regulator (AER) ST98-2014 *Alberta's Energy Reserves 2013 and Supply/Demand Outlook 2014-2023* report. Enbridge was of the view that it was clear from both of these reports that long-term growth in Western Canadian oil supply can be expected, with the bulk of this growth coming from oil sands development. Specifically, the CAPP report forecasted that supply would reach 827 000 m³/d (5.2 million bbl/d) by 2020 and 1 185 000 m³/d (7.4 million bbl/d) by 2030.

In addition to the CAPP report, Enbridge submitted that the AER ST98-2014 report supports Western Canadian oil supply growth. To illustrate this, Enbridge highlighted the AER ST98-2014 report as forecasting 600 000 m³/d (3.77 million bbl/d) of raw (unblended) bitumen production by 2023.

TAB 8

National Energy
Board



Office national
de l'énergie

Canada

National Energy Board Report

Trans Mountain
Expansion Project

May 2016



National Energy Board Report

Trans Mountain Expansion Project

May 2016

OH-001-2014



Need for the project and economic feasibility

In making a recommendation on an application under section 52 of the NEB Act the Board considers the need for and the economic feasibility of a proposed pipeline. Paragraphs 52(2)(a), (b), and (c) of the NEB Act specifically allow the Board to have regard to:

- (a) the availability of oil, gas or any other commodity to the pipeline;
- (b) the existence of markets, actual or potential;
- (c) the economic feasibility of the pipeline.

These factors are directly relevant to the need for, and the continued use of, a project. The purpose of the Board's analysis in this regard is for the Board to come to a conclusion whether a project will be sufficiently used over its lifetime.

In this regard, the Board requires the applicant to provide economic information that must include details on:

- Supply - indicating that there is or will be adequate supply to support the use of the pipeline, taking into account all potential supply sources that the applied-for facilities could access over their expected economic life;
- Transportation - indicating that the volumes are appropriate for the applied-for facilities and that the proposed facilities are utilized at a reasonable level over their economic life;
- Markets - indicating that adequate markets exist for the increased volumes available to the marketplace as a result of the applied-for facilities; and
- Financing - showing the applicant's ability to finance the proposed facilities, the method of financing, and any changes to the financial risk of the company, the impact of the proposed facilities on the applicant's abandonment cost estimate, and the toll impact.

As part of its evidence, Trans Mountain commissioned Mr. Neil Earnest of Muse Stancil (Muse) to provide an opinion on the outlook for oil market supply and demand, and related issues. As well, Mr. John Reed (Mr. Reed), of Concentric Energy Advisors, Inc., provided evidence on the economic and energy industry benefits of the Project. A study of the economic benefits of the Project for Canada and its regions was provided by Mr. Glen Hodgson of the Conference Board of Canada (Conference Board). Intervenors also submitted evidence on these issues;

TAB 9



National Energy
Board

Office national
de l'énergie

Reasons for Decision

Sea Breeze Victoria Converter Corporation Application to Construct and Operate an International Power Line

EH-1-2006

September 2006

Facilities

Canada

National Energy Board

Reasons for Decision

In the Matter of

**Sea Breeze Victoria
Converter Corporation
Application to Construct and
Operate an International
Power Line**

EH-1-2006

September 2006

BPA also contended that Sea Breeze's assertion that BC Hydro's call on Downstream Benefits to return power northwards along the I-5 corridor causes curtailment to load customers in this region is incorrect. BPA noted that approximately 21 percent of the Canadian Entitlement power is delivered to areas not along this corridor.

BPA highlighted that the 1999 Entity Agreement requires very specific points of delivery for the return of Canadian Entitlement to Canada and that Sea Breeze's proposed transmission path will not allow delivery to these specified, required points of delivery. In BPA's view, it would be very difficult, if not impossible, to change these points of delivery such that the proposed transmission path could be used as an alternative path for Canadian Entitlement return. BPA also contended that the U.S. and Canadian governments would likely be required to reopen extensive negotiations for any change to the point of delivery for Canadian Entitlement specified in the 1999 Entity Agreement.

Finally, BPA stated that to accommodate a transmission request from the Sea Breeze point of receipt would require nearly doubling its existing infrastructure to provide transfer to and from the interconnection.

BCTC stated that its concerns related to the potential impacts of the JdFC Project on its transmission system and on its customers. While indicating that it is not opposed to merchant transmission nor the applied-for Project, if supported by the market, BCTC disputed that the need for the Project has been demonstrated at this time, noting that no contracts have been put forward in support of the application.

2.3 Response of Sea Breeze

With respect to BPA's comments, Sea Breeze indicated that in its view, BPA was not objecting to the concepts Sea Breeze was presenting, just the words that Sea Breeze used. Although BPA indicates that there are many conditions that resulted in over-booking and not just the return of the Canadian Entitlement, Sea Breeze stated that from a utility perspective the Downstream Benefits are an additional layer on the utility's native load. To Sea Breeze, it is this last layer that causes the problem. In any event, Sea Breeze maintained that the theory behind why it is congested is irrelevant, what matters is that the intertie is congested and that there is a need for additional facilities.

In response to BCTC's concerns, Sea Breeze indicated that electricity deregulation is in its infancy and that the Board's determinations should be based on the facts and circumstances that exist in the evidence before it. Sea Breeze also noted that, unlike a utility that can include development costs in its rate base, the investors in the JdFC Project are at risk for any costs incurred. Sea Breeze suggested that it was proceeding through applicable regulatory approval processes and obtaining approvals in order to facilitate market and commercial outcomes.

Views of the Board

As noted by Sea Breeze, this application concerns the first international merchant transmission line to come before the Board for certification. As a merchant line, its owners are at risk for any funds devoted towards its

development, construction and operation. Economic and financial risks associated with the Project cannot be passed along to utility customers but must be borne by investors.

In making its determination as to whether to issue a Certificate, the Act requires that the Board shall have regard to all considerations that appear to it to be relevant. In this new situation, the Board must ask itself whether an *a priori* determination of the need for the Project is a relevant consideration, given that if the market does not support the Project, it is unlikely to be built. In addition, if an *a priori* determination of need is relevant, is the test with respect to the demonstration of need for the Project the same in these circumstances as the test when the risks associated with a project can be passed along to utility customers? More specifically, should this Applicant be required to have contracts for the use of the Project it wishes to develop prior to regulatory approvals being issued?

In the Board's view, an *a priori* determination of need is a relevant consideration. In coming to this view, the Board notes that not all costs associated with this Project are financial or economic ones to be borne by the investors in the Project. For example, construction of this Project is likely to result in some level of environmental impact and may impose inconveniences on other people. In order to determine whether the issuance of a Certificate is in the public interest, some assessment of the need for this Project should be undertaken so that it can be balanced against these other burdens.

However, the Board is not persuaded that signed contracts for the use of this Project are required in these particular circumstances. Since the financial risks associated with this Project's development are borne by the investors, the Board is of the view that an assessment of the extent to which this Project is likely to address market need is sufficient in these circumstances to allow the Board to undertake its regulatory function.

Therefore, the Board is of the view that Sea Breeze has demonstrated that the JdFC Project has the potential to respond to market need. In particular, the Board accepts Sea Breeze's evidence with respect to the potential ability of the Project to support increased transmission transfer capacity across the Canada/U.S. border.

With respect to BPA's comments, regardless of the reasons why or how congestion has occurred or the terminology used to express this, no party appears to contradict Sea Breeze's assertion that there is congestion on the intertie in the Pacific Northwest. Though the IPL may not be able to be used to return the Canadian Entitlement, the Board is of the view that the IPL could nonetheless help ease the congestion by providing an additional transmission path between B.C. and the U.S.



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PRESIDENTIAL PERMITS - PROCEDURES

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Executive Order 12038 states that, before a **Presidential permit** may be issued, the action must be found to be consistent with the public interest. The two criteria used by DOE to determine if a proposed project is consistent with the public interest are:


1. Environmental Impact - The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies give due consideration to the environmental consequences of their actions. Pursuant to NEPA, DOE must determine the environmental impacts associated with issuing or denying a Presidential permit. DOE published NEPA implementing procedures on April 24, 1992 (57 FR 15122). These rules, codified at 10 CFR 1021, specifically delineate the steps of the NEPA process.
2. Impact on Electric Reliability - DOE considers the effect that the proposed project would have on the operating reliability of the U.S. electric power supply system; i.e., the ability of the existing generation and transmission system to remain within acceptable voltage, loading and stability limits during normal and emergency conditions. The standards DOE applies include the standards of the North American Electric Reliability Council (NERC) and the standards of the member regional councils that are formulated by the utilities themselves.

After compliance with NEPA and satisfaction of the electric reliability criteria, E.O. 12038 requires DOE to obtain concurrence from the Secretary of State and the Secretary of Defense before a permit may be issued.

The time required to process an application for a Presidential permit is usually determined by the extent of the environmental analysis. A decision on a permit may be reached within six months if it is determined that the issuance of a permit is not a major federal action significantly affecting the environment and that an environmental assessment is the appropriate level of review for NEPA compliance. However, if it is determined that an Environmental Impact Statement would be required to adequately address the full environmental consequences of the proposed action, the time for processing the permit application could take 18 months or longer.

TAB 10

A filing fee, currently \$150, payable to the Treasurer of the United States, must be submitted with the application. In addition to this filing fee, an applicant also must pay the cost of DOE's environmental review if an environmental assessment or environmental impact statement is required. In some cases, NEPA can be satisfied using one of the categorical exclusions available at 10 CFR 1021.410. Categorical exclusions describe classes of actions that normally do not require the preparation of either an environmental impact statement or an environmental assessment because similar actions in the past clearly did not result in any significant environmental impacts.

Requests for Presidential Permits not currently on the website should be addressed to Christopher.Lawrence@hq.doe.gov. Questions concerning orders can be directed to Christopher Lawrence at (202) 586-5260 .

Copies of applications are available on request.

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The White House

TAB 11

148 FERC ¶ 61,236
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

ITC Lake Erie Connector LLC

Docket No. ER14-2640-000

ORDER CONDITIONALLY AUTHORIZING NEGOTIATED RATE AUTHORITY
AND GRANTING WAIVERS

(Issued September 26, 2014)

1. On August 13, 2014, ITC Lake Erie Connector LLC (ITCLEC) filed, pursuant to section 205 of the Federal Power Act (FPA)¹ and Part 35 of the Commission's regulations,² a request for an order confirming that ITCLEC retains authorization, previously granted to the Lake Erie CleanPower Connector (LECC), to sell transmission rights at negotiated rates on a proposed high-voltage direct current merchant transmission project (Project)³ following a change in the Project's upstream ownership. ITCLEC also requests waiver of certain filing requirements previously granted in the Negotiated Rate Order. As discussed below, the Commission conditionally grants ITCLEC's request for negotiated rate authority for the Project under its new upstream ownership, subject to the Commission's approval of a subsequent section 205 filing, and grants ITCLEC's requests for waiver, as discussed below.

¹ 16 U.S.C. § 824d (2012).

² 18 C.F.R. pt. 35 (2014).

³ *Lake Erie CleanPower Connector*, 144 FERC ¶ 61,203 (2013) (Negotiated Rate Order).

I. Background

A. ITCLEC and Affiliates

2. ITCLEC states that, when the Commission granted negotiated rate authority for the Project to LECC in the Negotiated Rate Order, LECC was a wholly-owned subsidiary of Lake Erie Power Delaware, Inc., which is in turn a wholly-owned subsidiary of Lake Erie Power Corporation (LEPC). LEPC is a privately-owned corporation organized and existing pursuant to the laws of Canada, with its principal place of business in Toronto, Ontario, Canada. ITCLEC states that LECC did not own or operate any electric generation, transmission, or distribution facilities.⁴

3. ITCLEC states that ITC Holdings Corporation, through its subsidiaries, invests exclusively in the electric power transmission grid to improve electric reliability, facilitate access to renewable and other generation, improve access to power markets, and reduce the overall costs of delivered electric power.⁵ ITC Holdings Corporation subsidiaries are independent, stand-alone transmission companies engaged exclusively in the development, ownership, and operation of facilities for the transmission of electric energy in interstate commerce. ITC Lake Erie Holdings LLC is a wholly-owned subsidiary of ITC Holdings Corporation formed for the purpose of holding the assets of the Project.⁶ ITCLEC states that, upon the transfer of the membership interests in LECC to ITC Lake Erie Holdings LLC, LECC was renamed ITCLEC.

B. The Project

4. On July 15, 2013, in Docket No. ER13-1979-000, LECC filed a request for authorization to sell transmission rights at negotiated rates over the Project and for waiver of certain Commission regulations and reporting requirements.⁷ LECC stated that the

⁴ ITCLEC Transmittal at 3.

⁵ *Id.*

⁶ *Id.* at 4.

⁷ Commission precedent distinguishes merchant transmission projects from traditional public utilities in that the developers of merchant projects assume all of the market risk of a project and have no captive customers from which to recover the cost of the project. *See, e.g., Hudson Transmission Partners, LLC*, 135 FERC ¶ 61,104 (2011) (*Hudson Transmission*); *Champlain Hudson Power Express, Inc.*, 132 FERC ¶ 61,006 (2010) (*Champlain Hudson*); *Chinook Power Transmission, LLC*, 126 FERC ¶ 61,134 (2009) (*Chinook*).

2. Four-Factor Analysis

a. Factor One: Just and Reasonable Rates

14. To approve negotiated rates for a transmission project, the Commission must find that the rates are just and reasonable.²⁷ To do so, the Commission must determine that the merchant transmission owner has assumed the full market risk for the cost of constructing its proposed transmission project. Additionally, the Commission must determine whether the project is being built within the footprint of the merchant transmission owner's (or an affiliate's) traditionally regulated transmission system; if so, the Commission must determine that there are no captive customers who would be required to pay the costs of the project. The Commission also considers whether the merchant transmission owner or an affiliate already owns transmission facilities in the particular region where the project is to be located, what alternatives customers have, whether the merchant transmission owner is capable of erecting any barriers to entry among competitors, and whether the merchant transmission owner would have any incentive to withhold capacity.

i. ITCLEC's Proposal

15. ITCLEC asserts that ITC Lake Erie Holding LLC's acquisition of membership interests in LECC, along with certain Project-related assets, has not resulted in a material change to any of the factors upon which the Commission relied in granting LECC's former negotiated rate authority.²⁸ ITCLEC reaffirms that it will assume all market risks for the Project and that there will be no captive customers.²⁹ ITCLEC also states that when the transmission line is completed, it will turn over operational control of the line to PJM, which will operate the line under PJM's Open Access Transmission Tariff (OATT), thus preventing ITCLEC from acquiring market power or controlling barriers to entry in the PJM market. ITCLEC states that incumbent transmission owners have an obligation under the PJM OATT to expand their transmission capacity, upon request, at cost-based rates, and therefore no entity will purchase transmission service from ITCLEC unless it is cost-effective to do so when compared to the incumbent transmission owners' cost of expanding capacity.³⁰ ITCLEC also states that the Commission has recognized that

²⁷ See *Champlain Hudson*, 132 FERC ¶ 61,006 at P 17.

²⁸ ITCLEC Transmittal at 8.

²⁹ *Id.* at 9.

³⁰ *Id.* at 9-10.

TAB 12



National Energy
Board

Office national
de l'énergie

Reasons for Decision

**TransCanada Keystone
Pipeline GP Ltd.**

OH-1-2007

September 2007

**Application for Construction and
Operation of the Keystone Pipeline**

Canada

National Energy Board

Reasons for Decision

In the Matter of

TransCanada Keystone Pipeline GP Ltd.

Section 52 Application dated 12 December
2006 for the Keystone Pipeline Project

OH-1-2007

September 2007

The KSG also expressed the view that there was no evidence on the record to suggest that Canada's security of supply was at risk; in fact, the record was rife with evidence showing the opposite.

Views of the Canadian Association of Petroleum Producers (CAPP)

CAPP argued there was a need for the Keystone Project as there was tremendous growth in supply and that trapped supply is not in the public interest. It claimed there was a clear market need for the Project, as demonstrated by strong contractual support.

CAPP suggested that investment decisions concerning the Project were taking place within the framework of market-oriented government policies. Upgrading and refining capacity was increasing as expected in light of growing supply and in response to market forces. CAPP noted that it was unreasonable to expect all supply to be refined or upgraded in Canada. The Association also submitted that the types of protectionist arguments raised by the CEP and AFL regarding free trade had already been debated and decided by the signing of the NAFTA. It argued that Canada has already had painful experiences with restrictive energy policies and that it now affirms its commitment to market-oriented policies. In CAPP's view the market is working as expected and a decision to approve the Keystone pipeline would be in the public interest.

Views of the Board

The Board's decisions are governed by the NEB Act. Section 52 requires the Board to have regard to all considerations that appear relevant to it. In particular, subsection 52(e) provides that the Board may have regard to any public interest that in the Board's opinion may be affected by granting or refusing an application.

The Board has a very wide discretion in determining what to consider in coming to a decision under section 52 of the NEB Act. As the Board indicated in its discussion of the public interest in the MH-1-2006⁶ Reasons for Decision, there is no precise definition of the concept. Rather, it may vary with the application, the location, the commodity involved, the various segments of the public affected by the decision and the purpose of the applicable section of the Act.

Therefore, the Board does not accept that the totality of the evidence presented by the CEP, the AFL and Parkland is irrelevant to the public interest determination it must make. The Board is of the view that the concerns expressed by the CEP, the AFL, Parkland and Dr. Laxer regarding potential impacts related to the export of non-upgraded oil on domestic industries, employment and security of supply are public interest considerations relevant to the disposition of this application.

6 MH-1-2006, TransCanada PipeLines Limited and TransCanada Keystone Pipeline GP Ltd., Transfer Application, February 2007.

The Board's determination of the constituent elements of the public interest must necessarily vary based on the application before it. The Board found in the context of the MH-1-2006 proceeding that the types of issues raised by the CEP and AFL were not relevant as they were "matters of broad public policy that were properly within the purview of Federal and Provincial governments". However, that case specific determination does not limit the Board's determination of the scope of the public interest in this proceeding.

The Board is of the view that its consideration of the overall public interest must transcend the positions of individual parties as well as government expressions of current economic and energy policy. While the Board is informed by them, it is of the view that its decision on the public interest must balance overall competing political, economic and social interests.

As part of its regulatory framework, one of the Board's goals is that Canadians benefit from efficient energy infrastructure and markets. In order for markets to function properly, there must be adequate transportation capacity to connect supply to markets. The Board is of the view that well-functioning markets tend to produce outcomes that are in the public interest.

It was suggested by some intervenors that an opportunity to create Canadian jobs would be lost if the Keystone pipeline exported unrefined product. The Informetrica Report provided an estimate of the number of jobs that could be created if the Canadian refining industry was expanded to process an additional 63 600 m³/d (400,000 b/d) of crude oil. The Board notes that the evidence does not, however, support the proposition that an expansion of the Canadian refining industry would necessarily result from a denial of this application. This is a decision that is normally made by the market.

The Board also finds the argument that approval of the Keystone pipeline may frustrate the development and growth of the domestic upgrading and refining industry by causing a lack of available oil and gas supply to be unpersuasive. The western Canadian crude oil production forecasts presented in this hearing was estimated at 468 000 m³/d (2,944,000 b/d) by 2010. These forecasts were not challenged. In contrast, the capacity of the Keystone pipeline would be 69 200 m³/d (435,000 b/d). The evidence demonstrates that projected supply will far exceed takeaway capacity offered by the Project. The Board accepts the evidence that the Keystone pipeline would provide producers in western Canada with takeaway capacity to accommodate projected growth in oil sands production in a timeframe that would eliminate or reduce the forecasted capacity constraints. The Board recognizes the adverse economic impacts that could be expected to arise from inadequate pipeline takeaway capacity. Given the capacity of the proposed pipeline in relation to the expected

production, the Board concludes that Canadian requirements for crude oil would continue to be met if the Keystone pipeline were built and carried the range of oil throughputs indicated in the application.

The Board finds it significant that current feedstock users did not participate in the hearing. Furthermore, the Board notes that shippers who signed long-term firm transportation contracts on the Keystone pipeline accepted a significant level of business risk. This is further evidence that market participants have confidence that the market is working and could be expected to continue to work to meet long-term requirements for Canadian crude oil.

Some intervenors suggested that the operation of the NAFTA and the existence of export orders may have negative consequences for security of supply that warrant a finding by the Board that the Project is not in the public interest. The Board is not persuaded by arguments that the Project should be denied because of the effect NAFTA may have or because shippers are not required to apply for long-term oil export licences. The Board is bound by legislation. Part VI of the NEB Act sets out the framework for export approvals and requires the Board to give effect to NAFTA. The Board is of the view that the approval of the pipeline and the consequent exports it will facilitate will not put Canadian security of supply at risk.

The Board notes that certain intervenors sought more detailed information on the products to be shipped and the specific end-uses of market demand. The Board is of the view that this detailed information is not necessary for its decision making. The Board is satisfied that the Keystone pipeline is flexible enough to meet a range of market requirements, including the possibility of transporting upgraded products. This flexibility should contribute to efficiency of the market and improved economic outcomes for Canadians.

Based on the evidence in this proceeding, the Board does not accept that approval of the application will have an adverse impact on Canadians. The existence of adequate pipeline capacity would enable the operation of the market and could stimulate investment, including investment by participants seeking to develop domestic upgrading and refining facilities. In the circumstances of this case, the Board does not believe that denying the Project strictly for the purpose of restricting bitumen exports to make them available as feedstock for potential domestic upgrading projects, that may or may not be realized, would serve the Canadian public interest. Such regulatory intervention would likely introduce uncertainty in the market that could negatively impact investment decisions and the availability of bitumen for both domestic and export markets. The Board concludes that there is no compelling reason in this case to interfere in what the Board believes to be a well functioning market by denying or delaying the Keystone application.

TAB 13



National Energy
Board

Office national
de l'énergie

Reasons for Decision

Enbridge Pipelines Inc.

**Alberta Clipper Expansion
Project**

OH-4-2007

February 2008

Facilities and Tolls and Tariffs

Canada

National Energy Board

Reasons for Decision

In the Matter of

Enbridge Pipelines Inc.

Section 52 Application dated 30 May 2007 and approval under Part IV of the *National Energy Board Act* (NEB Act) for the Alberta Clipper Expansion Project.

OH-4-2007

February 2008

that significant volumes of western Canadian crude oil would be shut-in without Alberta Clipper. The Board therefore finds that the evidence before it regarding oil supply and demand from existing and new markets, combined with reasonable forecasts of other increases in pipeline capacity was sufficient to show a need for additional pipeline transportation capacity out of the WCSB. In the Board's view, in order to foster the proper functioning of markets, adequate transportation capacity is required to connect supply to markets.

In final argument, AFL and CEP expressed concern that approval of the Project could cause a lack of domestic bitumen supply that might hinder the continued development of the Canadian upgrading and refining industry, and by extension, hinder job creation. AFL and CEP also both suggested that more study was required to determine the broad economic impacts of the Project. AFL stated that there was an absence of a national plan to develop the oil sands. It argued that reliance on market forces might lead to the loss or undermining of opportunities for value added domestic processing. It suggested that the Board should either deny or postpone approval until policy makers could consider the matter further. For its part, CEP expressed the view that approving the Project without requiring Enbridge to increase transportation capacity to eastern Canada, would prejudice eastern Canadian security of supply. It asked the Board to either deny the Project or mandate Enbridge to expand its Lakehead system in the U.S.

The Board finds the conclusions drawn by AFL and CEP about the consequences of approving the Project unconvincing for several reasons.

When considering the overall public interest, the Board strives to ensure that Canadians benefit from efficient energy infrastructure and markets. In this case, the Board is of the view that properly functioning markets will generally produce outcomes in the public interest. With this in mind, the Board finds that it would not be in the public interest to deny the Project in order to make feedstock available to potential domestic upgrading and refinery projects that may or may not be realized; the evidence does not support the suggestion that the Canadian refining industry would grow if the Project were denied. The Board also finds support for its decision in the fact that no intervenor or member of the domestic upgrading and refining industry expressed concern about the possibility of lack of access to feedstock or other conditions of access. Furthermore, the evidence before the Board was that the proposed Project would have the ability to transport a range of products, including refined products, thus attenuating the likelihood that continued development of domestic refineries would be hampered. The evidence also showed that should additional refined product be produced, these products could be transported to markets. Moreover, the Board recognizes that projected supply growth would likely still exceed pipeline takeaway capacity even

TAB 14



File OF-Fac-IPL-M159-2005 01
4 April 2007

Mr. Robert L. Williams
VP Regulatory
Montana Alberta Tie Ltd.
Suite 800, 615 Macleod Trail SE
Calgary, AB T2G 4T8
Facsimile: 403-265-1299

Dear Mr. Williams:

Montana Alberta Tie Ltd. (MATL) Application for a Permit to Construct and Operate an International Power Line (IPL) pursuant to Part III.1 of the *National Energy Board Act* (the NEB Act)

The National Energy Board has completed its examination of MATL's application dated 20 December 2005 and Updated Application dated 20 October 2006 to construct and operate a 230 kV IPL from Lethbridge, Alberta to the international border at a point approximately 20 km southwest of the town of Milk River, Alberta.

Pursuant to section 58.17 of the NEB Act the Lieutenant Governor in Council of Alberta designated the Alberta Energy and Utilities Board (the EUB) as Alberta's provincial regulatory agency.

In its review of the application, the Board received written submissions from the public, federal and provincial government departments and the Applicant, MATL.

Introduction

MATL published notice of its application in the Canada Gazette on 24 December 2005 and in the Lethbridge Herald on 24 and 29 December 2005. Following the Process Procedures set out in the Board's *Memorandum of Guidance to Interested Parties Concerning Full Implementation of the September 1988 Canadian Electricity Policy* (Revised 23 January 2003), MATL's notices stated that concerns about the application should be filed with the Board and the Applicant within 30 days. Members of the public questioned the adequacy of the notice and requested an extension of time for filing submissions with the Board. The Board extended the period for making submissions until 22 March 2006.

.../2

new facilities to be constructed; and no benefits would accrue to Albertans if the proposed IPL was built. Some persons expressed concerns that MATL is a private company that operates solely for profit, as opposed to a public utility.

MATL submitted that the major purpose of the proposed IPL is to facilitate the import and export of power to and from Alberta. Once in place, the IPL will allow markets on both sides of the border to have efficient and economic access to existing and new generation sources, including new wind generators in southern Alberta. Once in Montana, power could flow through utility systems to the Mid-Columbia Hub in Washington or to Utah.

MATL submitted that while Albertans will not be required to bear any of the financial costs associated with construction of the proposed IPL, Albertans will benefit in a number of ways from the project. MATL submitted that the proposed IPL would:

- increase the reliability and stability of the existing power system grids in Alberta and Montana;
- provide an additional transmission route during tight supply situations;
- provide greater flexibility in scheduling generator and transmission line maintenance;
- provide more competition and options to the marketplace, leading to the optimal allocation of generation resources;
- promote lower, sustainable rates for all customers by optimizing market functioning; and
- add facilities to the Alberta Interconnected Electric System at no cost to Canadian ratepayers.

MATL submitted that the Alberta Electric System Operator (AESO) is responsible for the safe, reliable and economic planning and operation of the Alberta Interconnected Electric System (AIES). MATL filed with the Board a copy of the Need Identification Document that AESO filed with the EUB. This document states that evaluations were made to determine the impact of the MATL project on the AIES. The basic philosophy was that the use of the MATL project would cause no harm to the existing or planned AIES. All of the results in the Need Identification Document present the necessary mitigation required whenever the MATL project would otherwise cause or increase a need to reinforce the transmission system of Alberta.

Views of the Board

By definition, the purpose of an IPL is to transmit electricity from or to a place in Canada to or from a place outside of Canada. It is market conditions – which are driven by consumers - that would dictate when power should be exported or imported. The proposed IPL may have a positive or negative impact on power prices in Alberta, but these are determined by market conditions. In the Board's view, however, power producers in Alberta can benefit from access to new markets and consumers in Alberta can benefit from access to new sources of generation. The fact that MATL is a private company and aims to make a profit also carries the converse risk that MATL's investors bear the risk for any funds devoted towards the construction and operation of the IPL.

In addition, the Board is of the view that under normal operating conditions, system reliability can be fortified by interconnections with adjacent jurisdictions and interconnections such as the proposed IPL can optimize the construction and use of generation resources.

With respect to concerns about where any power to be exported will originate, the Board notes that MATL has sought authorization only for an IPL facility which it proposes will be a merchant transmission line. MATL has not sought authorization from the Board to export electricity. The Board considers applications for the export of electricity based on the laws in force at the time the application is made. Any person wishing to export electricity must do so in accordance with a permit or a licence issued by the Board.

Regarding the potential impact of the proposed IPL on power systems in Alberta, the Board notes that AESO filed a Need Identification Document with the EUB. As explained earlier in this letter, the Board must seek to avoid duplication of measures taken by the government of any province through which the line is to pass. The Board is of the view that the issue of potential impacts on the AIES is being considered by AESO and the EUB. The Board's responsibility is to look at the impacts on provinces other than those through which the line is to pass and this is addressed in the next section.

The Effect of the IPL on Provinces Other than Alberta - System Impacts

With respect to the impacts that the proposed IPL may have on the existing transmission systems in the two adjacent provinces of Saskatchewan and British Columbia, MATL committed to providing the results of the Western Electricity Coordinating Council (WECC) path rating process prior to the construction of the IPL. The path rating process is essentially a power flow analysis of the western region administered by WECC that, among other things, will determine import/export limits of the proposed IPL in the context of power flow in the adjacent systems under various operating conditions.

MATL submitted that while import capability from Saskatchewan to Alberta is at its maximum equipment rating of 150 MW, the Alberta to Saskatchewan power transfer limit is constrained from its full capability to about 28 MW by limitations on the Edmonton to Calgary transmission path and the local transmission system in southeast Alberta. Further, MATL submits that the Saskatchewan-Alberta inter-tie incorporates a DC link that will not be affected by MATL's operation. Saskatchewan is part of the Eastern interconnection and the inter-tie is not part of the WECC path rating process.

On the other hand, MATL submitted that in British Columbia when the proposed IPL is integrated with the 500 kV Alberta-BC tie line, there are certain system conditions that may

TAB 15



File OF-Fac-IPL-M159-2005 01
4 April 2007

Mr. Robert L. Williams
VP Regulatory
Montana Alberta Tie Ltd.
Suite 800, 615 Macleod Trail SE
Calgary, AB T2G 4T8
Facsimile: 403-265-1299

Dear Mr. Williams:

Montana Alberta Tie Ltd. (MATL) Application for a Permit to Construct and Operate an International Power Line (IPL) pursuant to Part III.1 of the *National Energy Board Act* (the NEB Act)

The National Energy Board has completed its examination of MATL's application dated 20 December 2005 and Updated Application dated 20 October 2006 to construct and operate a 230 kV IPL from Lethbridge, Alberta to the international border at a point approximately 20 km southwest of the town of Milk River, Alberta.

Pursuant to section 58.17 of the NEB Act the Lieutenant Governor in Council of Alberta designated the Alberta Energy and Utilities Board (the EUB) as Alberta's provincial regulatory agency.

In its review of the application, the Board received written submissions from the public, federal and provincial government departments and the Applicant, MATL.

Introduction

MATL published notice of its application in the Canada Gazette on 24 December 2005 and in the Lethbridge Herald on 24 and 29 December 2005. Following the Process Procedures set out in the Board's *Memorandum of Guidance to Interested Parties Concerning Full Implementation of the September 1988 Canadian Electricity Policy* (Revised 23 January 2003), MATL's notices stated that concerns about the application should be filed with the Board and the Applicant within 30 days. Members of the public questioned the adequacy of the notice and requested an extension of time for filing submissions with the Board. The Board extended the period for making submissions until 22 March 2006.

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In addition, the Board is of the view that under normal operating conditions, system reliability can be fortified by interconnections with adjacent jurisdictions and interconnections such as the proposed IPL can optimize the construction and use of generation resources.

With respect to concerns about where any power to be exported will originate, the Board notes that MATL has sought authorization only for an IPL facility which it proposes will be a merchant transmission line. MATL has not sought authorization from the Board to export electricity. The Board considers applications for the export of electricity based on the laws in force at the time the application is made. Any person wishing to export electricity must do so in accordance with a permit or a licence issued by the Board.

Regarding the potential impact of the proposed IPL on power systems in Alberta, the Board notes that AESO filed a Need Identification Document with the EUB. As explained earlier in this letter, the Board must seek to avoid duplication of measures taken by the government of any province through which the line is to pass. The Board is of the view that the issue of potential impacts on the AIES is being considered by AESO and the EUB. The Board's responsibility is to look at the impacts on provinces other than those through which the line is to pass and this is addressed in the next section.

The Effect of the IPL on Provinces Other than Alberta - System Impacts

With respect to the impacts that the proposed IPL may have on the existing transmission systems in the two adjacent provinces of Saskatchewan and British Columbia, MATL committed to providing the results of the Western Electricity Coordinating Council (WECC) path rating process prior to the construction of the IPL. The path rating process is essentially a power flow analysis of the western region administered by WECC that, among other things, will determine import/export limits of the proposed IPL in the context of power flow in the adjacent systems under various operating conditions.

MATL submitted that while import capability from Saskatchewan to Alberta is at its maximum equipment rating of 150 MW, the Alberta to Saskatchewan power transfer limit is constrained from its full capability to about 28 MW by limitations on the Edmonton to Calgary transmission path and the local transmission system in southeast Alberta. Further, MATL submits that the Saskatchewan-Alberta inter-tie incorporates a DC link that will not be affected by MATL's operation. Saskatchewan is part of the Eastern interconnection and the inter-tie is not part of the WECC path rating process.

On the other hand, MATL submitted that in British Columbia when the proposed IPL is integrated with the 500 kV Alberta-BC tie line, there are certain system conditions that may

impact total Alberta imports and exports and few such limitations are explained in the AESO Need document. MATL is committed to providing the Board results of the Western Electricity Coordinating Council (WECC) path rating process.

Views of the Board

Determining the effect of a proposed IPL on other provinces is an important consideration in the Board's examination of an application. As well, the *National Energy Board Electricity Regulations* (Electricity Regulations) require an applicant to provide the power transfer capability of a proposed line for sustained transmission of power under winter and summer peak conditions. In addition, the Electricity Regulations require an applicant to demonstrate whether or not the proposed IPL will have any adverse effect on power systems in neighbouring provinces. The WECC study will determine if various operating conditions on the Alberta-B.C. tie line may have any impact on the operation of the proposed IPL and vice-versa.

In the Board's view, MATL must meet or exceed the performance standards that would be set out by the WECC path rating process. The Board would therefore impose a condition on any permit issued to ensure that MATL files the WECC report with the Board prior to commencement of construction. Such a condition would also require that outstanding concerns related to reduction of transfer capability on another path due to interconnection of the proposed IPL be identified and mitigated, as committed to by MATL in its application.

The transient stability studies in the AESO Need Identification Document identified that there will be conditions where the proposed IPL will not meet appropriate criteria or become unstable as a result of certain contingencies. Therefore, the Board would impose a condition on any permit issued such that MATL mitigates such instabilities in operating conditions through effective measures.

To promote safe and reliable operation of power systems, the North American Electric Reliability Corporation (NERC) develops reliability standards. The Board has an interest in reliability matters of IPLs and is supportive of the goal of mandatory reliability standards. On 14 September 2006, the Board recognized NERC as the Electric Reliability Organization as applicable to IPLs and is developing regulatory tools to adopt NERC Reliability standards by reference. It is the expectation of the Board that in the operation of the proposed IPL, MATL will be compliant with the most recent NERC reliability standards. Therefore, the Board would impose a condition on any permit issued requiring that MATL ensure that operation of the proposed IPL is compliant with the current NERC reliability standards.

TAB 16

Review of Ontario Interties

Prepared for the Minister of Energy by
the Independent Electricity System Operator
and the Ontario Power Authority

October 14, 2014



Executive Summary

Ontario has generally maintained sufficient resource capability within the province to be self-sufficient. The province has now transitioned to a new resource supply mix, including shutting down coal-fired facilities, building modern natural gas facilities and increasing its reliance on renewable energy, conservation, storage and demand response. Given Ontario's major restructuring to a low-carbon electricity system, the future role for the interties, and in particular the possibility of longer-term reliance on inter-jurisdictional clean-energy transactions, warrants consideration.

This report by the IESO and the OPA is in response to the request from the Minister of Energy for a review of the impacts and opportunities that may exist on Ontario's intertie connections to support demand and reliability requirements of the power system.

Ontario's interconnections with neighbouring jurisdictions have been of significant benefit to the province since the first connection between Ontario and New York was established more than 110 years ago. Currently, Ontario imports electricity on an hour-by-hour basis delivered across 26 interties with two provinces and three states. These non-firm arrangements have helped to enhance reliability for the province and reduce costs for Ontario consumers.

The interties provide operational and planning flexibility that enhance the reliability and the cost effectiveness of the Ontario electricity system. They also provide much needed support during emergency events, such as a sudden loss of a significant generating source or loss of transmission elements.

Flexibility is a key attribute of the existing interconnections, with the IESO utilizing that flexibility to meet changing supply-demand conditions in Ontario. Expanding the use of the existing interties for firm import arrangements – which would lock-in the availability of the interties on a real-time basis – could reduce that flexibility. Detailed analysis would be required to ensure that the reliable and efficient operation of the varied resource mix within Ontario's electricity system is maintained or enhanced under any proposed firm import scenario.

The firm import capacity is currently limited. There would need to be significant upgrades, including new transmission elements, to Ontario's transmission system and possibly new intertie capabilities to meet any marked increase in firm imports.

The cost of those enhancements would vary depending on the quantity of capacity being imported. There could also be the cost of new facilities that would likely be required in the exporting jurisdiction. The ability of suppliers to sell power at higher prices to markets other than Ontario could also push up the potential sale price to Ontario.

Transmission upgrades would also require regulatory and environmental assessment processes with long lead times, which brings into question the feasibility of firm import arrangements to meet the future baseload needs of the system identified in the 2013 Long Term Energy Plan (LTEP).

All of these factors could result in paying significantly more for firm imports than could be achieved through addressing supply needs with internal resources.