ONTARIO ENERGY BOARD

STAFF SUBMISSION

Canadian Niagara Power Inc.

Application for Leave to Construct

Transmission Facilities in the

Niagara Falls / Fort Erie Area

EB-2009-0283

December 18, 2009

1.0 INTRODUCTION

Canadian Niagara Power Inc. (the "Applicant" or "CNP") has filed an application with the Ontario Energy Board; (the "Board") dated July 16, 2009 under section 92 of the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B. CNP is a licensed Ontario transmitter which operates a transmission system in the Niagara Falls / Fort Erie area including an international interconnection to US National Grid's ("USNG") transmission system in Buffalo, New York, under a National Energy Board permit. CNP has applied for an order of the Board granting leave to construct transmission facilities in the Niagara Falls / Fort area to reinforce its existing 115 kilovolt transmission system. In addition to the facilities in Ontario CNP has proposed additional facilities that are needed on the Niagara River international border crossing and on USNG's system in Buffalo, New York, in order to complete the project.

The purpose of this document is to provide the Board with Board staff's submissions in accordance with the Board's Procedural Order No. 3 dated November 19, 2009. These submissions are based on a review of the evidence and submissions of parties to this proceeding as listed below:

- CNP's pre-filed evidence dated July 16, 2009
- CNP's responses to interrogatories dated October 28, 2009
- CNP's responses to interrogatories dated November 5, 2009
- CNP's submission to the Board dated November 6, 2009
- IESO's responses to supplementary interrogatories dated December 4, 2009
- Hydro One's responses to supplementary interrogatories dated December 4, 2009
- CNP's responses to supplementary interrogatives dated December 8, 2009
- CNP's submission to the Board dated December 8, 2009

The submissions reflect observations and concerns which arise from Board staff's review of the above-noted evidence and submissions and are intended to assist

the Board in evaluating CNP's application for an order of the Board granting leave to construct transmission facilities.

2.0 SUBMISSIONS

2.1 Project Need

2.1.1 Need Based on Meeting Reliability Standards

CNP submitted that the proposed facilities are categorized as "non-discretionary[1] " and are needed to address transmission reliability concerns and to provide overall system benefits to Ontario through an expanded and synchronous interconnection with New York. CNP also submitted that

> "The need for the Project is driven by the requirements of the Transmission System Code, which in turn requires the CNP transmission system to satisfy requirements found within the reliability standards of the North American Electric Reliability Corporation ("NERC"), as well as to meet the standards of good utility practice."[2]

Performance of the Existing Transmission System

CNP filed performance data for its transmission system in the period 2002 to 2008[3]. CNP compared the performance of its transmission system with the Canadian Electricity Association ("CEA") Transmission Benchmarking data (for 2002-2006) and also to Hydro One's Customer Delivery Point Performance Standards (for 2002-2008). CNP concludes that its transmission system performance does not compare favourably with those standards.

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[1] This refers to the project categorization found in Section 5.2 of the Ontario Energy Board Staff Proposal "Minimum Filing Requirements for Transmission and Distribution Rate Applications and Leave to Construct Projects" found on the Board's website under http://www.oeb.gov.on.ca/documents/minfilingrequirements_report_170706.pdf

[2] Exh B, Tab 3, Sch 1, P 1

[3] Exh B Tab 3 Sch 1, P 11-13; Response to Board staff Interrogatory 1.0 (vii)

Board staff notes, however, that while the results of the comparisons vary depending on time period selected, delivery point definitions and inclusion of planned outages, CNP's transmission system performance in the latter years ranks more favourably. In fact, based on the evidence, there have been no forced outages on CNP's system since October 2006 as of October 26, 2009. That is, at least 3 years without a single forced outage. This performance is better than the comparables mentioned above.

In Board staff's view, more recent performance (e.g. last 3 years) should be given more weight than earlier periods. Board staff also notes that CNP undertook certain measures prior to 2007 that may have improved the reliability of its transmission system, e.g. implementation of "more systematic line inspection and vegetation management programs". In any event 3 years of outage-free performance is a reasonable indication of reliability.

Based on CNP's evidence[4] its system currently has limited backup supply from USNG which can restore the supply in less than 4 hours. Hydro One provided a representative listing of 16 lines (see Section "Good Utility Practice" below) which indicates that those lines have either limited backup supply with restoration times greater than 4 hours or in two cases no backup supply at all.

The N-1 Contingency Criterion

In its pre-filed evidence, CNP submitted that a synchronous connection with New York needs to be established in order to meet the N-1[5] contingency criterion as per NERC standard TOP-002-2 (Requirement #6). CNP further submits that meeting the N-1 contingency criterion is a fundamental principle of "good utility practice"[6] as defined in the Board's Transmission System Code ("TSC")[7].

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[4] Response to Board staff suppl interrogatory SI-4, page 30.

[5] Meeting the N-1 contingency criterion expresses the ability of the transmission system to withstand the loss of one critical element without any interruption in supply.

[6] Board's Transmission System Code, Section 2.0, item 2.0.33, P 5

[7] According to the TSC, ""good utility practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry in North America……..".

This is contrary to the IESO's evidence[8] which indicates that the above-noted NERC standard does not apply to CNP's transmission system since CNP's system is not part of the Ontario bulk power system. The IESO also submitted that is not aware of any other standard, code or market rule that would require the CNP transmission system to meet the N-1 contingency criterion.

In response to Board staff's supplementary interrogatories (page 3), CNP conceded that the above-noted NERC standard does not apply to the CNP transmission system.

Good Utility Practice

CNP submitted in its pre-filed evidence and responses to interrogatories that meeting of the N-1 contingency criterion is in keeping with "good utility practice" as defined in the Board's TSC. The TSC defines "good utility practice" as follows:

> "good utility practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry in North America during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to optimum practices, methods or acts to the exclusion of all others, but rather to include all practices, methods or acts generally accepted in North America;

In an effort to determine whether meeting of the N-1 contingency criterion is a generally accepted practice in the industry for transmission systems that are similar to CNP's system, Board staff asked Hydro One to provide relevant information pertaining to parts of its system that are similar to CNP's system.

Based on Hydro One's response:

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[8] IESO responses to Board staff supplemental interrogatories SI-11, SI-12 and SI-18

- There are no existing 115 kV lines on the Hydro One transmission system that supply less than 75 MW of load and for which the N-1 contingency criterion is met.
- There are a large number of 115 kV lines on the Hydro One transmission system that do not meet the N-1 contingency criterion. As a result, Hydro One did not provide a comprehensive list but provided a sample of 16 115 kV transmission lines intended to show usual Hydro One practice.
- The load levels on the 16 lines listed were in the range of 10 - 131 MW with an average of about 63 MW per line.
- Typically the lines had provisions for partial load restoration requiring more than 4 hours. In two cases, no restoration is possible.

Board staff did not conduct an independent analysis of the nature of the load supplied by the Hydro One systems compared to the CNP system but expects that the Hydro one list is a representative sampling.

Based on the above, Board staff concludes that meeting of the N-1 contingency criterion is not a requirement of the TSC, NERC or any other known reliability standard. Also, based on Hydro One's evidence, transmission lines on the Hydro One system that supply loads comparable to CNP's do not meet the N-1 contingency criterion. Based on that, in Board staff's opinion, reinforcing of the CNP transmission system cannot be reasonably justified as a matter of "good utility practice"

The IESO submitted that it uses two measures[9] to assess the reliability performance of a local area transmission system such as CNP's system. One measure is based on the load restoration period and the other is a measure of the unsupplied energy. The IESO submitted that the CNP transmission system meets the reliability requirements on both counts.

Overall, in Board staff's opinion, since CNPI appears to meet the established reliability requirements, then the Project should not be categorized as "non-

[9] IESO responses to suppl. Interrogatories, Pages 4-5

discretionary", and, as a "discretionary" project, it must be justified on economic grounds.

2.1.2 Need Based on Achieving Economic Benefits

Based on CNP's evidence the Project will provide the following benefits:

		NPV over 30 years ($ million)	
		(based on pre-filed values)	Modified based on OPA Comments
(a)	Benefits associated with improved reliability of supply to the Fort Erie load	16.1	16.1
(b)	Benefits to Ontario due to increased interconnection capability between Ontario and New York	36.6	30.5
(c)	Benefits due to Improved maintenance schedules	3.4	3.4
	Total	**56.1**	**50.0**
	Overall NPV	**10.4**	**4.3**

The values in the last column are based on information provided by CNP in response to Board Staff supplemental interrogatory SI-7. The response included a letter from the OPA dated December 3, 2009 which states that the OPA believes that the use of avoided costs for demand response for this case is not entirely accurate because the value of demand response takes into account the value of reduced reserve margin requirements and losses. The value of demand reduction is expected to be about 20% higher than the value of additional supply. Based on that, CNP recalculated the value for (b). The result is a reduction from 36.6 to 30.5 million. The OPA did not comment on the other values in the Table.

The benefits in (b) and (c) represent the overall benefits to Ontario due to the increased interconnection capability between Ontario and New York. Regardless

of the accuracy of these amounts, in Board staff's opinion, if the Project were to be justified primarily on economic grounds, the Project would then be in the "discretionary" category and, as such, should be compared to other alternatives which could provide similar benefits to Ontario, e.g., utilizing the existing interconnection facilities at Niagara Falls or elsewhere in the province to increase the overall interconnection capability in Ontario.

Other than some rough estimates for some options provided by Hydro One (in response to interrogatories), CNP did not consider alternatives involving upgraded or new interconnection capability elsewhere in Ontario as alternatives to the Project. CNP submitted that it only considered alternatives that would provide improved reliability of supply to the Fort Erie load.

2.1.3 Need Based on Accommodating Renewable Energy Generation

With respect to need based on accommodating renewable energy generation, CNP submitted that prospective generators will need to be confident that the transmission system will offer a high level of reliability in order to support and maximize the generation output from their planned facilities and that not meeting the N-1 contingency criterion would be a significant barrier to the connection of renewable generation facilities to the CNP transmission system. CNP did not provide direct evidence from prospective generators or other sources that would support the above.

While Board staff agrees that enabling of renewable energy including the connection of renewable energy projects to transmission and distribution systems is a key objective of the *Green Energy and Green Economy Act,* there is no solid evidence that not meeting the N-1 contingency criterion would discourage prospective generators from seeking connection to CNP's transmission system. In Board staff's opinion, reliability of the transmission system would likely be more important for load customers than for generators, i.e. a wind or solar generator would likely not be especially concerned about transmission outages of the frequency and duration that has been experienced by CNP.

2.2 Alternatives Considered

CNP submitted that reinforcing its transmission system so that it meets the N-1 contingency criterion is the only viable option to provide improved reliability. Therefore it only considered alternatives that meet meets the N-1 contingency criterion.

Based on the IESO's evidence, CNP's existing transmission system meets the IESO's reliability guidelines for local area transmission systems such as CNP's transmission system.

Through interrogatories and supplemental interrogatories, Board staff questioned CNP regarding some relatively lower cost options that may improve reliability short of meeting the N-1 contingency criterion.

Based on CNP's evidence, in Board staff's view, there may be opportunities for improving the reliability of supply to the Fort Erie load by improvements to the backup supply from USNG by some relatively minor line upgrades and/or enhancements that may reduce the switching time to something less than 4 hours. It is noted that according to the IESO's guidelines, for load levels less than 75 MW, the supply should be restorable within 8 hours.

2.3 Project Economics and Cost Responsibility

CNP submitted that the Project relates to network assets and is proposing to pay the entire cost of the Project (estimated at $33.2 million including AFUDC). This includes the capital contribution that CNP will make to United States National Grid ("USNG") to cover the costs of the work in New York and which, in CNP's view, would be added to CNP's rate base and ultimately recovered through the network charge of the Uniform Transmission Rates. In other words, CNP is proposing to pay the entire cost of the project and seek recovery from Ontario ratepayers. As this proceeding is not a rates case, Board staff makes no submission here regarding ultimate recovery of any costs related to the Project. However, staff observes that the onus always lies on an applicant in a rates case to demonstrate that any amounts closing to rate base are of benefit to the utility's customers and reasonable, whether they are costs relating to a leave to construct application or not.

CNP also submitted that USNG "anticipates minimal benefits for its interests from the Fort Erie Interconnection Project". CNP further stated that “if USNG is to carry out any of the work associated with the Project, CNP will be required to cover the related costs.”

If the Board decides to approve the subject application, Board staff suggests that CNP be required to make further efforts to seek a contribution from USNG based on any benefits that USNG may gain from the Project, e.g. facilitating trade, reliability and operating benefits etc. This would be of benefit to Ontario ratepayers.

2.4 Regulatory Jurisdiction

The Project involves changes to an “international power line”[10] as defined in the National Energy Board (“NEB”) Act for which CNP currently holds an electricity permit (EP-137) from the NEB, issued in May 1999 under 58.11 of the *NEB Act.* Section 9 of permit EP-137 requires that CNP obtain prior approval from the NEB for any change to the “international power line”. In addition, the “international power line”, the Project involves facilities in Ontario and in New York.

Although an OEB leave to construct is not required for facilities outside Ontario, these facilities are identified and described in the application because they are needed to complete the Project, i.e., all portions must be completed in order to achieve the desired results. Also, as stated earlier, CNP is proposing to pay the entire cost of the Project and seek recovery from Ontario ratepayers.

CNP submitted that it intends to apply to the NEB for the required changes to its federal permit subsequent to receiving a final decision from the OEB in this application. CNP further submitted that it has consulted with NEB staff and has been advised that this would be the NEB's expected sequence of regulatory processes for a project of this nature.

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[10] “international power line" means facilities constructed or operated for the purpose of transmitting electricity from or to a place in Canada to or from a place outside Canada.

If the Board decides to approve the subject application, Board staff suggests that the approval granted makes it clear that the approval pertains only to the portions of the Project within Ontario for which the OEB has jurisdiction and that such approval is given on the condition that CNP obtains all the necessary federal regulatory approvals and all the necessary U.S. approvals, before construction starts. It also appears to Board staff that the international portion of the line lies under NEB jurisdiction, and therefore this portion of the Project does not require and OEB leave to construct approval.

2.5 Environmental Assessment

With respect to provincial environmental assessment requirement, CNP submitted that, subject to the outcome of detailed engineering, the Project is not expected to give rise to give rise to provincial environmental assessment requirements. CNP expects that the Project will represent only a "minor modification" for purposes of the EA Act and O. Reg. 116/01 and that as such, the Project would be exempt provincial environmental assessment requirements.

With respect to federal environmental assessment requirement, CNP submitted that " An application under section 21of the NEB Act does not trigger federal environmental assessment requirements as it is not listed under the Law List Regulation of the Canadian Environmental Assessment Act" and that "it was very unlikely that any aspect of the project would give rise to such requirements".

CNP submitted that, based on its legal counsel's experience, the Ontario Ministry of the Environment and the Canadian Environmental Assessment Agency, do not normally verify for proponents that projects do not trigger requirements under either of the provincial or federal environmental assessment regimes. CNP has attempted but has been unable to obtain verification from the Ministry of the Environment. With respect to verification regarding federal requirements, CNP submitted that "Buy not having any applicable "trigger", no "responsible authority" has accountability for the administration of the federal legislation in respect of CNP's Project.

If the Board decides to approve the subject application, Board staff suggests that CNP be required obtain all necessary provincial and federal environmental approvals before construction starts.

2.6 Aboriginal Consultations

CNP submitted that while there is a significant off-reservation Aboriginal population in the general vicinity of Fort Erie and the proposed project, to the best of its knowledge, there is no formal Aboriginal representative council.

CNP believes that the Fort Erie Native Cultural Center, which is associated with the federal and provincial association of Native Cultural Centers is a central point of contact with the Aboriginal population in the area. CNP representatives spoke with staff at the Cultural Center and followed with formal notice to the Executive Director of the Cultural Center on August 13, 2009 and discussion with the Executive Director October 20, 2009. CNP submitted that no concerns regarding the Project were raised and that the Executive Director requested on behalf of their Board that CNP attend a future forum at the Cultural Center to provide first hand description of the project and its benefits to the area. CNP has agreed to this request.

In response to Board staff supplemental interrogatory SI-10, CNP contacted the Ontario Ministry of Aboriginal Affairs for purposes of determining whether there are any existing or asserted Aboriginal or treaty rights in the vicinity of the Project. A representative of the Ministry has advised that, although he believes there to be no active matters or claims in the relevant area, this cannot be confirmed until a comprehensive search is completed by the Ministry. The Ministry advised that the results of the comprehensive search will be available in January 2010. CNP will notify Board Staff and all parties once the Ministry's response has been confirmed. Staff recommends that any approval be conditional on this response being provided to the Board. In the event that any Aboriginal consultation issues are identified, it may be necessary to consider this matter further.

All of which is respectfully submitted.

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