

November 6, 2009

VIA RESS, EMAIL and COURIER

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

Attention: Ms. K. Walli, Board Secretary

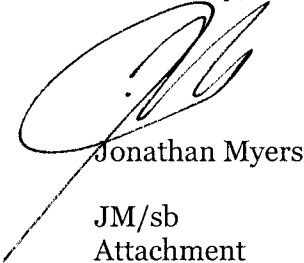
Dear Ms. Walli:

**Re: Canadian Niagara Power Inc. - Application for Leave to Construct
(Board File No. EB-2009-0283) - Applicant Submissions**

We are counsel to Canadian Niagara Power Inc. ("CNP") in the above-noted matter. Attached are CNP's final submissions, which have been filed this morning on the Board's RESS system.

Further to our letter dated November 5, 2009, these submissions are being filed a half-day following the deadline prescribed in Procedural Order #1. The need for this additional time was largely due to the time and attention needed to finalize the applicant's responses to late interrogatories filed in this matter.

Yours truly,



Jonathan Myers

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Attachment

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ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15 (Sched. B);

AND IN THE MATTER OF an application by Canadian Niagara Power Inc. for an Order or Orders pursuant to section 92 of the *Ontario Energy Board Act, 1998* (as amended) granting leave to construct and reinforce transmission facilities in and around Fort Erie, Ontario.

APPLICANT SUBMISSIONS

November 6, 2009

APPLICANT SUBMISSIONS

1. Introduction

These are the submissions of Canadian Niagara Power Inc. (“CNP”) in the matter of its application for leave to construct and reinforce transmission facilities in the Fort Erie and Niagara areas (EB-2009-0283). From a reliability perspective, the current configuration of CNP’s transmission system is deficient in a fundamental way. As the system only has one normal source of supply, CNP’s transmission system is exposed to the risk of outages of significant duration in any one of the several circumstances that can give rise to an interruption to that source of supply. Because of the current configuration, such outages are almost always *system-wide* outages that affect over 15,000 end-users, including residential, commercial, institutional and industrial end-users.

The only solution to this fundamental reliability problem is to provide CNP’s transmission system with the ability to withstand the loss of its primary source of supply (i.e. N-1 contingency) by enabling it to deliver uninterrupted supply to its end-users in such circumstances. CNP has considered several approaches to equipping its system with this ability to withstand the loss of its primary supply and has found that the Project is the only viable means of achieving this objective. As indicated in the response to Board Staff interrogatory 1.0(iii), the IESO “agrees with CNP’s submission that the CNP transmission system should be able to withstand the N-1 contingency criterion as a fundamental principle of good utility practice.” In

1 further agreeing with CNP's response to 1.0(i), the IESO confirms that the Project will enable
2 CNP's system to withstand an N-1 contingency.

3 Recognizing CNP's obligation under the Transmission System Code to operate and maintain the
4 system with an appropriate level of reliability, as recognized by good utility practice, CNP
5 therefore regards the Project as being non-discretionary. Unlike the other alternatives
6 considered, the Project offers significant system-wide benefits to Ontario due to the increased
7 intertie capacity that would result. As indicated in the response to Board Staff interrogatory
8 1.0(v), the IESO confirms these benefits as including the potential for the Project to enhance the
9 overall Ontario import/export capability and, therefore, to provide:

- 10 • increased market activity and efficiency,
- 11 • flexibility to address situations of surplus baseload and/or renewable generation,
12 and
- 13 • flexibility to import during periods of supply shortages.

14 It is therefore appropriate for CNP to be granted leave in respect of the Project and for the
15 Project Costs to eventually be recoverable through the Network charge of Uniform Transmission
16 Rates.

2. **Need for the Project**

(a) **The Current Configuration Does Not Work**

The current configuration of the CNP transmission system does not allow for the system to provide uninterrupted supply upon the loss of its primary source. As explained in Exhibit B, Tab 2, Schedule 1, loss of the primary supply may result from:

- a fault on the Hydro One transmission system,
- a fault on line A37 between Hydro One's Murray TS and CNP's Station #11,
- a failure at Station #11, which is the sole supply point to line L2, or
- a fault on line L2, between Station #11 and Station #18.

An interruption to CNP's primary supply necessarily results in the entire CNP transmission system going dark.

While the CNP transmission system has some limited backup capability from U.S. National Grid ("USNG") through the use of the Emergency Tie Line¹, this backup capability is deficient. As described in Exhibit B, Tab 3, Schedule 1 at p. 8, the Emergency Tie Line is no longer capable of meeting average monthly peak load levels on the CNP system. Moreover, as described in Exhibit B, Tab 3, Schedule 1 at pp. 5-8, the Emergency Tie Line cannot be engaged without there first being a significant interruption to supply. This is because it takes a minimum of 4 hours to complete the co-ordination and switching over to this alternate supply source, in a

¹ The Emergency Tie Line is described at Exhibit B, Tab 1, Schedule 1.

1 manner that does not cause adverse impacts on systems in New York and in Ontario, in the event
2 of a forced outage. During this time, the entire CNP transmission system remains dark and all
3 end-users are affected.

4 For a planned outage, such as for purposes of carrying out maintenance on the CNP system, CNP
5 can undertake some of the co-ordination activities in advance but the process of switching over
6 to the Emergency Tie Line still requires an outage of approximately 30 minutes in duration.

7 During such a planned outage, with few exceptions, the entire CNP system necessarily goes dark
8 and all end-users are affected. Moreover, in order to switch back from the Emergency Tie Line
9 to the primary supply source following either a planned or forced outage, CNP's system

10 experiences an additional 30 minute outage during which the entire system goes dark and all
11 end-users are once again affected. In accordance with basic principles of good utility practice, it
12 is unreasonable and unacceptable for CNP to subject the end-users of its system to forced and
13 planned outages with the frequency, duration and, particularly, the scope that its end-users are
14 subject to under the current configuration.

15 With respect to the frequency and duration of outages under the current configuration, CNP has
16 considered its historical performance against the findings of the Canadian Electricity
17 Association's *Study on Forced Outages of Transmission System Equipment, 115-149 kV*. This
18 analysis, described in Exhibit B, Tab 3, Schedule 1, at pages 11-13, generally indicates that the
19 performance of the CNP transmission system has been below average. Consideration of the
20 contributing factors behind these unfavourable comparisons shows that performance relative to
21 these standards would have been significantly better if the CNP transmission system had N-1

1 contingency. This is because virtually all outages in recent years would have been either
2 prevented or significantly shortened.

3 With respect to the comparison against the Hydro One Customer Delivery Point Performance
4 Standards, as presented in Figure 3.3 (b) on Page 13 of Exhibit B, Tab 3, Schedule 1, CNP's
5 transmission system performance from 2002 to 2008 fell below both the minimum and average
6 performance standards for both frequency and duration of outages.

7 **(b) Outages to the CNP Transmission System are System-Wide Outages**

8 With respect to the scope of outages experienced by the CNP transmission system, with the
9 exception of only a few minor circumstances,² the system configuration causes outages on the
10 CNP transmission system to be *system-wide* outages that in each instance affect over 15,000 end-
11 users in the service territory, which has a population of approximately 30,000 people. Such
12 outages are highly disruptive to the end-users of the CNP transmission system. Outages
13 adversely impact individuals, businesses and institutions, as well as the economic well-being of
14 the region served by CNP's transmission system. In addition to the risk of more frequent
15 outages that affect an entire region, the fact that it takes a minimum of four hours to activate the
16 emergency supply from USNG contributes further to the adverse impacts suffered by CNP's
17 transmission system end-users.

² The minor exceptions are those instances where planned outages are needed for maintenance purposes on certain parts of the system where isolation of that outage is possible.

1 CNP believes that the size and type of load served by its transmission system is significant
2 enough to justify the investment needed to provide N-1 contingency. The CNP service territory
3 is primarily urban in nature and includes a diverse group of end-users. These include residential,
4 commercial, institutional and industrial end-users who depend on a reliable source of supply (See
5 for example Exhibit B, Tab 4, Schedule 1, pp. 6-7). As noted in the pre-filed evidence at Exhibit
6 B, Tab 4, Schedule 1, p. 15, among the end-users that are served by CNP's transmission system
7 are numerous large industrial users and the Buffalo and Fort Erie Public Bridge Authority, which
8 operates the Peace Bridge - one of the busiest and most economically significant border
9 crossings between Canada and the United States. The impacts of outages on this particularly
10 unique end-user are discussed further below.

11 The frequency, duration and scope of outages that CNP's transmission system is exposed to can
12 curtail future load growth, particularly with respect to potential industrial end-users that would
13 be directly or indirectly connected to the CNP Transmission System. Potential industrial and
14 institutional end-users will be deterred from connecting new facilities in the area unless they can
15 be assured of a more reliable electricity transmission supply. Similarly, electricity generators
16 will require reliable transmission both as a source of supply for their generation facilities and as a
17 means for delivering their generation output. This includes renewable energy generators
18 proposing to connect either directly to the transmission system or to the distribution system that
19 is served by CNP's transmission system. It is CNP's understanding that the distribution system
20 that it serves has been the subject of several queries and expressions of interest from prospective

1 renewable energy generators in the short period since the introduction of the *Green Energy and*
2 *Green Economy Act*.

3 **3. The Project is the Only Viable Solution**

4 Providing the ability to withstand an N-1 contingency is the only viable approach to providing
5 improved reliability, consistent with fundamental principles of good utility practice, for the CNP
6 transmission system. While CNP carries out a wide range of activities and is always considering
7 improvements that may enhance system performance, no such activities or improvements would
8 address the basic reliability problem of the system not being able to withstand the loss of its
9 primary supply source. As indicated in CNP's responses to Board Staff interrogatories,

- 10 • With respect to the two circuits on the limiting Queen St. Tower to High Tower
11 section, where only one of the circuits is currently energized, even if the second
12 circuit was upgraded to 60-cycle, re-insulated and energized, the basic reliability
13 problem of not having N-1 contingency would not be mitigated (See responses to
14 1.0(vi) and 2.0(ii)(b));
- 15 • An upgrade to the limiting transmission line section between Queen St. Tower
16 and High Tower would improve line capacity by a small margin and would
17 therefore increase the capacity of the Emergency Tie Line by a small margin, but
18 the Emergency Tie Line would still provide inadequate emergency backup supply
19 and would still take at least 4 hours to engage. Such an upgrade would not
20 address the basic reliability problem of not having N-1 contingency (See response
21 to 2.0(ii)(a));
- 22 • The 31-step, minimum 4-hour long procedure for engaging the Emergency Tie
23 Line in the event of a forced outage, along with the similar process for switching
24 back to the primary supply cannot be condensed or shortened. This amount of
25 time is needed in order for USNG to perform the necessary switching operations
26 on its system and for the appropriate co-ordination to take place between CNP,
27 Hydro One, the IESO and USNG so as to prevent adverse consequences to the
28 USNG system that would otherwise result from use of the Emergency Tie Line.
29 In any event, even if the process could be shortened, this would not address the

1 basic reliability problem of not having N-1 contingency (See response to
2 2.0(ii)(c); and

3 • CNP has in recent years carried out work for purposes of enhancing system
4 performance and minimizing risk, including the removal of trees posing risks to
5 the transmission lines, the replacement of some older insulators, as well as the
6 implementation of more systematic line inspection and vegetation management
7 programs. CNP also has a range of planned system improvements of a normal or
8 ongoing nature, such as procedural improvements and capital and maintenance
9 expenditures to enhance system robustness. While these activities may reduce
10 some risk and improve system performance, none of this work addresses the basic
11 reliability problem of not having N-1 contingency (see responses to 1.0(xi) and
12 2.0(ii)(d)).

13 As indicated, the only solution to the fundamental reliability problem of the system not being
14 able to withstand the loss of its primary supply is to equip the system with this ability to provide
15 uninterrupted supply in the event of such loss, i.e. to provide N-1 contingency. Furthermore, the
16 Project is the only viable means of providing the CNP transmission system with the ability to
17 withstand an N-1 contingency. To arrive at this conclusion, CNP considered two alternative
18 projects that could provide N-1 contingency, as well as three different variations of the Project.
19 These are discussed in Exhibit B, Tab 6, Schedule 1.

20 The two options considered each would have involved development of a new transmission line
21 along existing rights-of-way in order to connect the CNP system to the IESO-controlled grid at a
22 second location. One option would have been to connect at Station #11 in Niagara (the “Niagara
23 Project Alternative”) and the other option would have been to connect at Crowland TS in Port
24 Colborne (the “Port Colborne Project Alternative”). Each of these alternatives would be
25 expected to provide the same local reliability benefits as would be expected from the Project.
26 However, as neither of these alternatives would provide additional intertie capacity, they would

1 not provide any of the associated system-wide benefits that are expected from the Project.
2 Because of this, the project alternatives were both found to have negative net present values (See
3 Exhibit B, Tab 6, Schedule 1, pp. 16-17). Moreover, as these alternatives would require the
4 construction of lengthy, new lines through a region that includes highly populated areas in some
5 places, along with numerous areas that are recognized as being environmentally sensitive, the
6 permitting and stakeholdering risks would be significant (See Exhibit B, Tab 6, Schedule 1, pp.
7 13-16). The viability of the Niagara Project Alternative and the Port Colborne Project
8 Alternative was therefore found to be highly uncertain .

9 CNP also considered several different variations of the Project. These variations involved the
10 development of a synchronous connection with USNG using phase shifters at different sizes - 60
11 MVA, 80 MVA and 150 MVA. The conclusion of this analysis demonstrated that the use of a
12 150 MVA phase shifter is by far the most prudent approach to developing a synchronous
13 connection with New York. Generally, to make full use of the smaller sized phase shifters, most
14 of the system upgrades needed for the Project would still be required. Therefore, for a very
15 small incremental cost associated with the higher capacity phase shifter, significant incremental
16 benefits would be realized (See Exhibit B, Tab 6, Schedule 1, pp. 2-7). The Project, therefore,
17 was found to be the only viable option.

4. **The Project is Needed to Effectuate Good Utility Practice and Therefore is Non-Discretionary**

Section 5.1.2 of the Transmission System Code (the “Code”) requires CNP, as a transmitter, to operate and maintain its transmission facilities in compliance with the Code, its licence, its operating agreement with the IESO, the Market Rules, all connection agreements, good utility practice, the standards of all applicable reliability organizations and any applicable law.

Together, these obligations give rise to the need for CNP to provide transmission service with a high level of reliability.

The need for the project is particularly driven by CNP’s responsibility to operate and maintain its system in accordance with good utility practice, which is defined in the Code as:

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.

Based on the use of this term, CNP has an obligation under the Code to operate and maintain its system in accordance with such generally accepted practices and/or through the exercise of reasonable judgment consistent with good business practices, reliability, safety and expedition.

For a system of the size and nature of CNP’s transmission system, serving end-users with the diversity and economic significance of those served by CNP’s system, good utility practice demands that such system have the ability to withstand the loss of one element. By this, it is

1 meant that CNP must have a readily available secondary supply available to provide
2 uninterrupted service in the event of the unplanned loss of the system's primary supply. In
3 addition, good utility practice suggests that CNP should have the ability to carry out planned
4 outages for purposes of carrying out maintenance activities without incurring lengthy system-
5 wide outages in the course of switching to and from an emergency supply source (See Exhibit B,
6 Tab 3, Schedule 1, p. 14 and responses to Board Staff interrogatories 1.0(i), (ii) and (iv)).

7 Based on its current and future delivery obligations, CNP submits that, as a transmitter in
8 Ontario, it is obligated to ensure that its transmission system is able to withstand an N-1
9 contingency by providing uninterrupted supply upon the loss of one element. As indicated, the
10 Code requires a transmitter to operate and maintain its system in compliance with good utility
11 practice and the standards of all applicable reliability organizations. As defined in the Code,
12 "reliability organization" refers to NERC, NERC's reliability councils and the IESO. Further to
13 CNP's obligation under the Code to operate and maintain its system in accordance with good
14 utility practice, CNP regards Requirement #6 of NERC's reliability standard TOP-002-2 as
15 providing a credible basis for its view that good utility practice with respect to the CNP
16 transmission system demands that the system be able to withstand an N-1 contingency.

17 Therefore, it is the substance of the NERC standard, as applied to the unique circumstances of
18 the CNP transmission system, which supports CNP's assertion that it is required by the Code,
19 through its obligation to operate and maintain its transmission system in accordance with good
20 utility practice, to provide its system with the ability to withstand an N-1 contingency. Providing
21 this ability to withstand an N-1 contingency is the only viable solution that can provide improved

1 reliability for the CNP transmission system and, as such, represents a fundamental element of
2 good utility practice. For these reasons, CNP regards the Project as being non-discretionary.³

3 As indicated in the response to Board Staff interrogatory 1.0(iii), the IESO agrees with CNP's
4 submission that the CNP transmission system should be able to withstand the N-1 contingency
5 criterion as a fundamental principle of good utility practice. The IESO agrees that there is a need
6 for enhancements on the CNP transmission system (See response to Board Staff interrogatory
7 1.0(xiv)(c)).

8 **5. The Project Offers Significant Reliability Benefits to CNP's System and System-**
9 **Wide Benefits to Ontario**

10 Notwithstanding the Project being non-discretionary, CNP exceeded the Board's *Filing*
11 *Requirements for Transmission and Distribution Applications* and has also demonstrated that the
12 Project is economic in that it has a positive net present value, as discussed below.

13 CNP has demonstrated three broad classes of benefits that will be derived from the Project: (1)
14 local reliability benefits that have been quantified, (2) intertie capacity benefits to Ontario that
15 have been quantified, and (3) qualitative local and system-wide benefits. It should be noted that,
16 in all aspects of the analysis, CNP has taken a highly conservative approach to quantifying the
17 reliability and intertie capacity benefits anticipated from the Project.

³ The classification of the Project as non-discretionary is further discussed in CNP's response to Board Staff interrogatory 1.0(xiv).

1 (a) **Quantitative Local Reliability Benefits**

2 CNP applied a methodology whereby the value of lost load (VoLL) was used very
3 conservatively⁴ to determine the value of the Project's local reliability benefits. This approach
4 determined that the quantitative reliability benefits expected from the Project have a net present
5 value of \$16.1 million. The reasonableness of this finding was then validated using a 'bottom-
6 up' calculation of local reliability impacts. The data used for purposes of this calculation was
7 collected through surveys completed by a selection of large industrial end-users, as well as based
8 on cost impacts associated with a flooding event that impacted a distinct segment of residential
9 end-users who are known to be vulnerable to flooding due to power outages. As the narrowly
10 scoped bottom-up calculation showed local reliability benefits amounting to over 70% of the
11 value determined through the VoLL approach, the result of the VoLL approach is considered to
12 be a reasonable quantification of these local reliability benefits from the Project.

13 (b) **Quantitative Intertie Capacity Benefits to Ontario**

14 CNP identified two types of benefits that were able to be quantified: (a) reduced capacity
15 requirements for Ontario, and (b) insurance against generation maintenance outages. These are
16 discussed in Exhibit B, Tab 4, Schedule 1 starting at p. 10.

17 To quantify the value of the Project in reducing capacity requirements for Ontario, CNP
18 considered the cost of building equivalent new generating capacity. To support this
19 methodology, CNP used the Board's *Guidelines for Electricity Distributor Conservation and*
20 *Demand Management*, which provide a forecast of avoided costs for generation capacity to the

⁴ See Exhibit B, Tab 4, Schedule 1, p. 4 at line 2.

1 year 2025. Based on the Guidelines, the net present value of the avoided generation cost for 150
2 MW of generation capacity over the life of the Project was determined to be approximately \$365
3 million. Consistent with CNP's highly conservative approach to quantifying the benefits of the
4 Project, this amount was reduced by a factor of 90% to arrive at an estimate of \$36.5 million for
5 the net present value of the avoided generation cost provided by the Project (See Exhibit B, Tab
6 4, Schedule 1 at pp. 12-13. An additional \$3.4 million in benefits (NPV) was identified in
7 respect of the fact that the Project would help relieve constraints during shoulder seasons when
8 generation may not be available due to maintenance activities (See Exhibit B, Tab 4, Schedule 1
9 at p. 14). Together, CNP has therefore quantified \$39.9 million in benefits associated with the
10 increased intertie capacity provided by the Project.

11 (c) **Qualitative Local and System-Wide Benefits**

12 CNP has identified numerous qualitative benefits that can be expected from the Project. As
13 indicated in the Board's Filing Requirements, qualitative benefits are an important consideration
14 in evaluating the Project and alternatives to the Project.

15 These qualitative benefits include significant benefits to the Fort Erie Public Bridge Authority
16 which operates the Peace Bridge connecting Fort Erie, Ontario with Buffalo, New York. This is
17 a critical infrastructure link and among the busiest border crossings between Canada and the
18 United States. It is important for trade and houses vital security and immigration-related
19 facilities. Power outages result in significant delays, most notably to truck traffic. The economic
20 impacts of such delays cannot be measured precisely, but it is estimated that on average trade
21 across the Peace Bridge is valued at US\$3.4 million *per hour*. In addition, there are impacts on

truck drivers, transport companies and on all of the parties who rely upon the timely delivery of goods (See Exhibit B, Tab 4, Schedule 1 at pp. 15-17).

Other qualitative benefits, discussed in Exhibit B, Tab 4, Schedule 1 at pp. 17-21 include the following:

- as a result of the reliability improvements to the CNP transmission system, the Project would reduce disruption and inconvenience to all end-users within CNP's transmission service territory, including residential end-users, schools, stores, restaurants and recreational facilities, to name a few;
- as a result of the increased intertie capacity provided by the Project, the Project will offer some protection against future supply shortages in Ontario, which could result from delays in anticipated new resources or higher than expected load growth;
- as a result of the increased intertie capacity provided by the Project, the Project will offer some protection against short-term supply shortages which can result from unexpected reductions in Ontario-based supply due to growing dependence on intermittent sources;
- as a result of the increased intertie capacity provided by the Project, during periods of low Ontario demand, the Project would provide the IESO with greater flexibility by allowing for greater exports of surplus baseload generation to New York;
- as a result of the increased intertie capacity provided by the Project, in normal operating circumstances the intertie would provide benefits associated with the possibility of increased trade with New York;
- the Project offers the practical, economically efficient and social benefit of maximizing the use of existing infrastructure and not requiring the use of additional lands;
- related to the above-noted benefit regarding the use of existing infrastructure and the need for no additional lands, the Project presents few regulatory risks as compared to the alternatives considered and the Project offers significant benefits without adversely affecting people, communities or the natural environment.

As indicated in the response to Board Staff interrogatory 1.0(v), the IESO confirms and emphasizes several of the above-noted benefits, particularly those related to the increased inertia capacity that would result from the Project. Specifically, the IESO confirmed and emphasizes the potential for the Project to enhance the overall Ontario import/export capability and, therefore, to provide:

- increased market activity and efficiency,
- flexibility to address situations of surplus baseload and/or renewable generation, and
- flexibility to import during periods of supply shortages.

6. It is Appropriate for the Project Costs to be Recoverable Through the Network Charge of the Uniform Transmission Rates

The Project carries an estimated cost of \$30.9 million (See Exhibit B, Tab 5, Schedule 1). As indicated in CNP's response to Board Staff interrogatory 3.0(i), when an allowance for funds used during construction (AFUDC) is included, the cost estimate rises to \$33.2 million. As indicated in Exhibit B, Tab 5, Schedule 1, the Project has a positive net present value of over \$10 million. This calculation takes into account the project cost including AFUDC.

CNP proposes that the Project costs, which include the capital contribution that CNP will have to make to USNG to cover the costs of work to be carried out on the USNG system in support of the Project, be added to CNP's rate base upon the Project coming into service. These costs would then be recovered through the network charge of the Uniform Transmission Rates. This is appropriate for the following reasons:

- 1 • the Project relates to network assets;
- 2 • the Project is non-discretionary because CNP is required by the Code, as a
3 licenced electricity transmitter in Ontario, to comply with the obligation to
4 operate and maintain its system in accordance with good utility practice which, as
5 indicated, in the present circumstances requires CNP to provide its system with
6 the ability to withstand the loss of its primary supply and therefore to provide N-1
7 contingency;
- 8 • the Project will, as discussed, provide a wide range of significant, system-wide
9 benefits to Ontario, such benefits having been confirmed and emphasized by the
10 IESO; and
- 11 • the Project will provide the level of reliability that is needed to support economic
12 growth in the Niagara and Fort Erie region, as well as to support the potential
13 future connection of new generation, including renewable energy generation
14 facilities, to the CNP transmission system and/or the distribution system that it
15 serves, all in support of provincial government policy objectives.

16 As described in Exhibit B, Tab 5, Schedule 1, it is expected that Network rates would increase by
17 an average of 1.2 cents per kilowatt, per month, over the life of the Project. On this basis, the
18 expected impact of the Project on a typical residential customer would be 2.7 cents per month or
19 an increase of 0.024%.

20 7. **Conclusions**

21 For all of the foregoing reasons, and based on CNP's pre-filed evidence and responses to the
22 interrogatories of Board Staff, Hydro One and Ontario Power Generation, we hereby submit that
23 leave should be granted in accordance with CNP's Application, pursuant to Section 92 of the
24 *Ontario Energy Board Act*, for an order or orders granting:

- 25 (a) leave to reinforce 2.0 km of line (being CNP's lines A36 and A37) to
26 accommodate the maximum capability of an upgraded interconnection between

CNP's transmission system in Fort Erie, Ontario and US National Grid's
("USNG") transmission system in Buffalo, New York;

(b) leave to construct and reinforce 0.5 km of Conductor from the Bertie Hill Tower
to Queen Street Tower in Fort Erie with 795 MCM conductor to provide capacity
of at least 150 MW; and

(c) leave to construct and reinforce 0.66 km of Conductor from the Queen Street
Tower in Fort Erie, Ontario, across the Niagara River, to the High Tower forming
part of the USNG transmission system in Buffalo, New York.

And including the following, which are fundamental and integral to the completion of the
forgoing:

(a) installation of an additional 115 kV breaker adjacent to the Murray taps on A36N
and A37N;

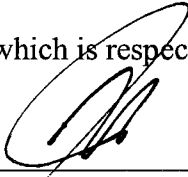
(b) installation of two additional breakers at Station #17 in Stevensville for enhanced
sectionalizing and zone control;

(c) installation of a 150 MVA phase shifting transformer and voltage regulator at
Station #18 in Fort Erie;

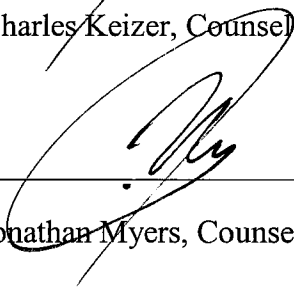
(d) construction of a 115 kV three-breaker ring station located at switch SW 998 in
Buffalo, New York, that will tie L46, L47 and USNG's Canada Bus; and

(e) removal and replacement of approximately 10 km of conductor from the Huntley
Station to a new 115 kV Paradise Station being planned by USNG in Buffalo,
with a new 115 kV three-phase transmission circuit.

All of which is respectfully submitted by:



for Charles Keizer, Counsel for the Applicant



Jonathan Myers, Counsel for the Applicant