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**Andrew Skalski**

Director – Major Projects and Partnerships  
Regulatory Affairs

BY COURIER

September 14, 2011

Ms. Kirsten Walli  
Secretary  
Ontario Energy Board  
Suite 2700, 2300 Yonge Street  
P.O. Box 2319  
Toronto, ON.  
M4P 1E4

Dear Ms. Walli:

**EB-2011-0085 – Erie Thames Powerlines Corporation Application for Service Area  
Amendment – Hydro One Networks Inc. Interrogatory Responses**

I am attaching two (2) copies of Hydro One Networks (“Hydro One”) responses to the Interrogatory questions from Board Staff and Erie Thames Powerlines on Hydro One’s Economic Evaluation.

A copy of this cover letter and the attached Interrogatory Responses has been filed in text-searchable electronic form through the Ontario Energy Board's Regulatory Electronic Submission System and the confirmation slip is also enclosed.

Sincerely,

ORIGINAL SIGNED BY ANDREW SKALSKI

Andrew Skalski

c. Mr. Chris White, Erie Thames Powerlines Corporation

**Hydro One Networks Inc.**

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Director – Major Projects and Partnerships  
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BY COURIER

June 10, 2011

Ms. Kirsten Walli  
Secretary  
Ontario Energy Board  
Suite 2700, 2300 Yonge Street  
P.O. Box 2319  
Toronto, ON.  
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Dear Ms. Walli:

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Amendment – Hydro One Networks Inc. Interrogatory Responses**

I am attaching two (2) copies of Hydro One Networks (“Hydro One”) responses to the Interrogatory questions from Board Staff and Erie Thames Powerlines.

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c. Mr. Chris White, Erie Thames Powerlines Corporation

**Ontario Energy Board (Board Staff) INTERROGATORY #1 List 1**

**Interrogatory**

**Reference: Hydro One's Evidence, Page 3, Section 7.**

Hydro One states "Hydro One's system has more than enough capacity to supply this development. In addition, Hydro One's long term plans are to extend another circuit in the area."

- a) Please explain whether in estimating available capacity Hydro One has considered the requirements to connect only Phase 1 of the residential development, or the entire project, i.e. Phase 1 and Phase 2 of the residential development, and future commercial development. If only connection of Phase 1 has been considered, would Hydro One have sufficient capacity to connect the entire development without expansion of its distribution system in the subject area.
- b) Please provide details of Hydro One's plans to extend another circuit in the subject area, including timing and costs.
- c) Please explain whether plans to extend another circuit in the subject area have been triggered by the requirements to serve the development. If not, please provide reasons for such plans.
- d) Does Hydro One have any knowledge of potential future development in areas contiguous to the subject area?

**Response**

- a) Yes, Hydro One has more than sufficient capacity to connect both Phases 1 and 2 of the development without expansion of the distribution system. The 38M50 which will be used to connect the development has 4 MVA of available capacity. Phase I of the development will require approximately 0.5 MVA. Phase II is likely in the same order of magnitude. The remaining capacity would be available for future phases of the development or other growth as required.

- b&c) The key area of expected future development in the Town of Ingersoll is in the southern part of the town towards Highway 401 within Hydro One's service area. Hydro One's plans for future growth are based upon accommodating this future need. The Sifton development is one example of the southerly trend in growth.

While no additional capacity is required to serve this development, Hydro One's long term plan is to extend a circuit into this area when warranted by future growth. The timing of any future expansion of Hydro One's distribution system is dependent upon the timing of that growth. The cost for this upgrade would be estimated at such time.

- 1 d) Hydro One understands that there is potential for industrial growth in the properties
- 2 adjacent to the Sifton subdivision. The Sifton portion of the subdivision is a small
- 3 part of a larger planned concession of residential growth. Both of these potential
- 4 future development areas are in Hydro One's service territory.

**Ontario Energy Board (Board Staff) INTERROGATORY #2 List 1**

**Interrogatory**

**Reference: Hydro One's Evidence, Page 5, Section 10.**

Hydro One states, "Any feeders with notable growth, such as this development, are reviewed as the growth occurs."

Please explain whether such review of the Ingersoll TS M50 feeder has been already conducted.

- If yes, please provide evidence that quality and reliability of Hydro One's service will not be impacted by connection of the proposed development.
- If no review has been conducted, what evidence can be provided by Hydro One to demonstrate that there will be no impact on reliability of Hydro One's service to the customers supplied through this feeder as a result of additional load.

**Response**

A preliminary review of the Ingersoll TS M50 has been conducted due to the proposed connection of the new development. A more detailed analysis will be completed once the required connection information has been received from the customer. The reliability of Hydro One's service on this feeder will not be impacted by the proposed development since the section of line servicing that development would be equipped with a protective device that would isolate faults within the subdivision.

**Ontario Energy Board (Board Staff) INTERROGATORY #3 List 1**

**Interrogatory**

**Reference: Hydro One's Evidence, Page 6, Section 12.**

Hydro One expressed concerns over the connection costing details included in Erie Thames' application.

In Hydro One's view, had these costs been included in Erie Thames cost estimates, would a difference in cost be material? If yes, please provide reasons.

**Response**

Given that the costs noted in Appendix A of Hydro One's evidence show a difference of approximately \$21K between Hydro One's cost to connect and ET's cost (Uncontestable Work Subtotal), Hydro One contends that any change in cost in the range of several thousand dollars would be material to this application.

Hydro One's evidence at page 6 has noted a number of potential inconsistencies and cost understatements in ET's evidence. One example is in regard to the parameters used in ET's economic evaluation model. Hydro One notes ET used a ROE of 8.15% instead of the 2011 board approved ROE of 9.66% hence ET's financing costs used in the model are understated. Another example is the exclusion of LV charges as noted in Appendix B in Hydro One's evidence. There may be similar such understatements. Hydro One has not done an exhaustive check on all inputs to the ET economic model. Hydro One suggests that these inconsistencies, along with the other inconsistencies noted on page 6 could have a material impact on Erie Thames' stated costs.

1        **Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #1 List 1**

2  
3        **Interrogatory**

4  
5        **Reference: Hydro One Intervenor Evidence, Question 3**

6  
7        Hydro One's evidence cites Map 2 in Erie Thames' application and states that the service  
8        area boundary is approximately 50 meters north of the northern boundary is contiguous  
9        with Erie Thames service territory.

- 10  
11       a) Please confirm that Erie Thames' service territory is contiguous to the north boundary  
12       of the new subdivision or, alternatively, provide additional evidence to suggest  
13       otherwise.

14  
15  
16       **Response**

- 17  
18       a) Yes, Erie Thames' service territory is contiguous to a part of the north boundary of  
19       the new sub-division. Hydro One's reference to the edge of the subdivision being 50  
20       meters south of ET's service area was in reference to the north east corner of the new  
21       development abutting Harris Street, where there are existing customers not included  
22       in the Sifton development.

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #2 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 4**

Hydro One states that the proposed entrance to the development is within Hydro One's service territory and assumes that this will be the supply point for the property. In its application and supporting evidence, Erie Thames has indicated that it will service the new subdivision via an existing municipal service easement.

- a) Please confirm that there are no OEB or other prohibitions on supplying a subdivision from an area of the property other than the entrance.
- b) Are subdivisions always supplied via the entrance to the property?
- c) Please confirm that the proposed subdivision is currently vacant land and Hydro One has no assets on the subject land.

**Response**

a&b) Hydro One is not aware of any OEB or other prohibitions regarding how a subdivision is supplied. The type of connection arrangement that Hydro One intends to use, via the entrance to the property, is consistent with the standard approach generally used. Hydro One can use this approach because it has existing assets, as noted in its evidence, running along Harris St., adjacent to the site.

In making the statement in its evidence regarding the connection point, Hydro One was not drawing a negative inference on Erie Thames' proposal to use a municipal easement as a means of connection. However, one of the criteria the Board uses to assess service area amendment applications is which proponent has the most economic and efficient use of existing assets. Hydro One contends its solution best fits this assessment because, as indicated in its evidence, Hydro One will connect the development from a feed off an existing pole at the entrance to the subdivision and hence no expansion is required.

- c) Currently there are no assets from any utility on the proposed subdivision's site, with the exception of a 55 foot pole owned by Hydro One at the site's entrance.



**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #3 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 5**

Hydro One states that it will connect the Sifton development using the existing 38M50 feeder and no expansion is required.

- a) Please confirm that there is no OEB prohibition on expanding the distribution system to connect customers.
- b) Please confirm that Hydro One will feed the Sifton development from its 38M50 feeder which is supplied by Erie Thames through a retail point of supply.
- c) Please explain why Hydro One's costs to connect the subdivision (E.g. equipment, labour, etc.) in its Offer to Connect are significantly higher than Erie Thames' if no expansion is required.

**Response**

- a) No, there is no OEB prohibition on expanding the distribution system. However, in the Board's RP-2003-0044 Decision, the board found in assessing economic efficiency of SAAs that the "optimization of use of the existing system configuration and ensuring that the amendment does not result in any unnecessary duplication or investment in distribution lines and other distribution assets and facilities [para. 84]" is an important criterion in their decision. Hydro One can connect the development from a feed off an existing pole at the entrance to the subdivision, unlike Erie Thames' proposal that requires expansion of the distribution system.
- b) Hydro One will feed the Sifton subdivision from the Hydro One owned and supplied 38M50 feeder which is fed through a retail point of supply (RPS). Hydro One notes that in RP-2003-0044, paragraph 200, the Board wrote that it "discourages the creation of **new** points of supply to facilitate the distribution of electricity to an existing or new customer by an incumbent distributor ... [emphasis added]". Hydro One will not be creating a new RPS to supply the development. Hydro One will be using an existing RPS which is consistent with the Board's principles in RP-2003-0044.
- c) Hydro One is not in a position to definitively compare the cost to connect of both parties. However, Hydro One has noted in its evidence on page 6 and in response to Board Staff interrogatory #3, that it has concerns with some aspects of Erie Thames costs which in Hydro One's view result in a cost understatement and contribute to the apparent differences in the comparative costs to connect, excluding expansion.

1 **Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #4 List 1**

2  
3 **Interrogatory**

4  
5 **Reference: Hydro One Intervenor Evidence, Question 6**

6  
7 Hydro One estimates that it could connect the development within 10 working days after  
8 OEB approval.

- 9  
10 a) Does this timeline include the time required to install the necessary underground  
11 infrastructure (e.g. trenching, duct work, pulling and cable)?  
12 b) Given the estimated short time frame for connection, please explain why Hydro  
13 One's connection costs in its Offer to Connect are significantly higher than Erie  
14 Thames'.

15  
16 **Response**

- 17  
18 a) Yes  
19  
20 b) As indicated in Hydro One's response to Tab 1, Schedule 3, in Hydro One's view  
21 Erie Thames' cost estimates are likely understated and if adjusted and also put on an  
22 'apples to apples' basis for comparison purposes there would not be a significant  
23 difference in cost between the respective Offers.

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #5 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 7**

Hydro One states that supply to the area is from the 38M50 sub-transmission feeder from Ingersoll TS.

- a) Please confirm that the 38M50 that runs from the north boundary to the south boundary of Erie Thames' service territory is solely owned by Erie Thames.

Hydro One states that it has sufficient capacity to supply the development but that it also has long-term plans to extend another circuit into the area.

- b) Erie Thames has capacity on multiple feeders (38M50 and 38M49) to supply the subject area without additional expansion or costs to existing and/or new customers. Erie Thames submits that using this existing infrastructure is the most economically efficient solution for extra capacity. Please confirm that it would be more prudent and the optimal solution to maximize the capacity of both the Ingersoll M50 and Ingersoll M49 before introducing a new source of supply in the subject area. Assuming that Erie Thames services the subject area and maximize the existing M50 and M49 feeders, please indicate whether the additional circuit into the area could be delayed.
- c) Please provide details of Hydro One's long-term plans to extend another circuit into the area, including the cost and economic effect on new and existing customers.
- d) How will the costs of this extended circuit be recovered? If through the rate base, please explain why the customers in the subject area bare a portion of these costs at this time when there is a more efficient use of the overall distribution system currently available (i.e. maximizing M50 and M49).
- e) In situations such as emergencies on the 38M50, Erie Thames can supply the area from the 38M49. Hydro One's customers benefit from this. However, if an emergency happens downstream of the retail point of supply, Hydro One cannot offer supply from another source. Please confirm.

**Response**

- a) Hydro One owns the north section of the feeder from Ingersoll TS to the Erie Thames boundary. The section of the 38M50 in Ingersoll is owned by Erie Thames. The southern section of the 38M50 feeder, exiting Ingersoll, is also owned and operated by Hydro One.
- b) Hydro One would not be introducing a new source of supply in the area. The existing 38M50 circuit in Hydro One's service territory is capable of handling the load proposed in the subject area. The decision on whether and when an additional circuit,

1 which would introduce a new source of supply, will be required is dependent upon  
2 local load growth.

3  
4 c) Please see response to Tab 1, Schedule 1 answers b and c).

5  
6 d) The extension of another circuit into this area will not be due to this development. In  
7 the future, if an extension of another circuit into this area is required it will be due to  
8 load growth. Hydro One agrees that maximizing the use of the spare capacity on the  
9 38M50 is efficient. Both utilities will use the spare capacity on the existing 38M50 to  
10 serve the development. Therefore both solutions are equally efficient in that respect.

11  
12 e) In Hydro One's view there is not a material difference in the reliability that would be  
13 experienced in the proposed development from downstream events regardless of  
14 which utility makes the connection.

15  
16 In the event of a downstream event, Hydro One can open switches and isolate that  
17 section of the feeder that extends onto and south of Clarke Road. The section of the  
18 feeder that is vulnerable to downstream events is therefore limited to the section that  
19 runs from the RPS in the north to Clarke Road in the south. As such, Hydro One  
20 considers there is a marginal difference in reliability between Hydro One's  
21 connection of the subdivision and Erie Thames'.  
22

1        **Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #6 List 1**

2  
3        **Interrogatory**

4  
5        **Reference: Hydro One Intervenor Evidence, Question 8**

6  
7        Hydro One states that, given both parties plan to serve the new development using the  
8        38M50 feeder, the reliability impacts in the new subdivision will be the same regardless  
9        of which utility makes the connection.

- 10  
11       a) Please confirm that, if loss of supply occurs downstream of the retail point in Hydro  
12       One's service territory, there is no alternate source of supply further downstream.

13  
14       **Response**

- 15  
16  
17       a) Please see Hydro One's response to Tab 2, Schedule 5, answer e).

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #7 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 9**

Hydro One has provided interruption statistics for the section of the feeder near the proposed new connection and they have concluded that the subject area has very good reliability.

- a) Please confirm that the two outages in 2009 and 2011 were downstream of the retail point of supply. If so, please confirm that Hydro One does not have the capability to back feed the impacted area to reduce those outage times.

**Response**

- a) The two outages referenced in Tab 2, Schedule 9 of Hydro One's evidence occurred upstream of the retail point of supply, not downstream. Hydro One notes that if outages occur neither utility will have the ability to back feed the new development without building additional facilities.

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #8 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 10**

Hydro One states all feeders into Ingersoll, including the 38M50 are owned by Hydro One, with system planning and system development done by Hydro One's system planners.

- a) Please confirm that Hydro One does not control the 38M50 within Erie Thames' service territory, including all retail customers of Erie Thames.
- b) Please confirm that all feeders into Ingersoll from the wholesale meter point are under the direct control of Erie Thames.
- c) Please confirm that Erie Thames owns, monitors and maintains the 38M50 within Erie Thames' service territory.
- d) Please confirm that Hydro One does not do system development or system planning on the 38M50 within Erie Thames' service territory.

**Response**

- a) Correct, Erie Thames controls the 38M50 within the Town of Ingersoll, however the 38M50 extends both north and south of Ingersoll and these portions are owned and controlled by Hydro One.
- b) Correct. However, Hydro One notes that for reliability purposes there is no difference between whether customers are supplied from a wholesale meter point or a retail meter point.
- c) Correct
- d) For the portion of the 38M50 in the Town of Ingersoll, Erie Thames does system development and planning. However, Hydro One is responsible for all the planning and system development of the 38M50 outside of the Town of Ingersoll including the impacts on the 38M50 due to actions within the embedded Erie Thames system.

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #9 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 11**

Hydro One has raised questions regarding the comparison table presented in Erie Thames' application.

- a) For the convenience of the developer and in an attempt to compare costs using a similar format as Hydro One, Erie Thames' engineering department broke down the charges included in both parties' offer to connect. This comparison table is not the formal offer to connect submitted and accepted in principle by the developer, and the offer to connect governs. Please confirm that Erie Thames' offer to connect, which was accepted in principle by the developer, confirms with the Distribution System Code and it governs over the informal comparison table.

**Response**

- a) The responsibility to determine that Erie Thames' offer to connect conforms to the Distribution System Code lies with the Ontario Energy Board, not Hydro One.

Hydro One confirms that the terms of an offer to connect are prescribed by the Distribution System Code.

The comparison table on which Hydro One commented was included as evidence in Erie Thames' application. In respect to the reliance that can be placed on what is now being characterized as an "informal comparison table", Hydro One notes that the information in the comparison table was presumably drawn from and therefore should be consistent with each utility's offer.



**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #10 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 12**

Hydro One has prepared a revised comparison table in attempt to compare connection costs.

- a) In their comparison table, Hydro One has applied a number of assumptions (increases) to Erie Thames' connection costs regarding easements, splicing of secondary cable and inspection costs, and reduced Erie Thames connection rebates by approximately 30%. Please provide the rationale and basis for these changes.
- b) Please confirm that Erie Thames has not made any changes, or applied any assumptions, to Hydro One's offer to connect in its comparison table of the competing offers to connect.
- c) Please confirm that the spreadsheet is just an informal comparison table subject to interpretation by both parties and that the parties' offers to connect are the governing documents pursuant to the Distribution System Code.

**Response**

- a) The rationale and basis for the adjustments made by Hydro One in the comparison table are contained in the footnotes of Appendix A and also in the text and calculations in Appendix B.

In addition, the comparison table provided by Hydro One also noted that a number of cost elements had been left out of the Economic Evaluation Model (EEM) provided by Erie Thames that was used to calculate the connection rebates. For example, the EEM appeared not to include any variable operations and maintenance costs associated with this development over the 25 year valuation period. As well there were no upstream costs, such as LV charges, that will be incurred in relation to the new development. Hydro One does not have sufficient information to accurately estimate what the impact of all these potential changes would be.

- b) Confirmed.

- c) The comparison table included in Appendix A of Hydro One's evidence is based on the information and format provided by Erie Thames in its application. As noted in Hydro One's response to Tab 2, Schedule 9, the information in the comparison table should be consistent with the offers of both utilities. Hydro One's adjustments to the comparison table included in ET's application were made in order to provide an

1           ‘apples to apples’ comparison. Hydro One believes that this comparison is useful  
2           information for the Board to have in making a determination in this case.  
3  
4

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #11 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 13**

Hydro One states that the CDM programs available to the future customers in the new subdivision are comparable or superior to those of Erie Thames.

- a) In a presentation to the Electricity Distributor Association on May 19, 2011, Hydro One's Director Strategy & Conservation Officer stated that OEB-approved programs "may be needed". Apart from OPA-contracted province wide programs and the PowerSaver plus program, what regional or local CDM programs have Hydro One had approved by the OEB? What regional or local CDM programs are being considered by Hydro One?
- b) As the local utility for the majority of the Town of Ingersoll, Erie Thames is the front line for questions from the residents regarding CDM. Please explain Hydro One's local involvement with formal and informal CDM efforts and events in the town of Ingersoll. Please explain how Hydro One intends to understand and keep current with the CDM needs and concerns that are specific to the residents of the Town of Ingersoll.
- c) In the presentation referenced in (a) above, it appears that Hydro One's CDM delivery is still in development. Given this, please provide the basis for the assertion that Hydro One's CDM programs will be comparable or superior to those of Erie Thames.

Hydro One states that customers will have access to a "dedicated team of conservation call agents prepared to assist them with information about conservation"

- d) In the presentation to the EDA referenced in (a) above, Hydro One discusses the need to outsource its call centre and its "feet on the street". The presentation then states that a weakness of outsourcing these functions is "Less customer interaction/response to customer needs". Please confirm that Hydro One intends to outsource these functions. If so, how does Hydro One intend to address this weakness to ensure that the residents of the Town of Ingersoll receive CDM advice and guidance specific to their local needs? Has Hydro One contracted with third parties to provide these functions? If not, please provide the basis for the statement regarding a dedicated team of conservation call agents.

**Response**

a) Apart from the OPA-contracted province wide programs and the PowerSaverPlus program, Hydro one does not have any OEB Approved CDM programs. However, Hydro One does have OEB approval for incremental CDM funds that are used in part to fund the PowerSaverPlus program and the dedicated team of conservation call agents. Hydro One plans to file an application for OEB approved CDM programs with the Board in 2011. These programs will include a range of offerings for residential, commercial and industrial customers.

b) As noted in Hydro One's evidence section 13, at the top of page 7, Hydro One provides all residential customers, including those in Ingersoll, with access to an online energy audit program (PowerSaverPlus) as well as a dedicated team of conservation call agents accessed by a toll-free 1-800 number offering extended hours of service (Mon.-Fri. 7:30 a.m. – 6:00 p.m.). This method of service delivery allows customers to access CDM information and resources at their convenience without having to attend events outside the home. The dedicated team of call agents has been in place since January 2009 and its role is to act as "trusted advisors" with the customers. The team is trained to work with customers to understand their bill and advise on which conservation programs are suitable to the customer. Feedback provided by our customers on this team has been very positive.

Hydro One has also implemented a web-based time-of-use portal that provides customers with hourly, daily and monthly consumption information (kWh and cost), graphs and tables that can be viewed online, as well as the ability to download the underlying data to a spreadsheet so the customer can do whatever other analysis they like. The portal also provides a number of other innovative features, such as a "temperature overlay" to help customers understand how weather impacts their usage and costs. Importantly, this web application was designed to accommodate Hydro One's many non-high-speed web users.

It is through these phone and web-based communication methods that Hydro One will keep current of its customers' CDM needs and concerns, including those of the residents of the Town of Ingersoll.

c) Hydro One's suite of CDM program offerings, including OPA and Hydro One's own programs, along with customer's access to its dedicated call centre team, will result in Hydro One providing what we believe will be a superior level of service.

d) Consistent with standard industry practice, Hydro One uses a combination of in-house staff and turnkey contractors to deliver CDM programs. This "hybrid" method of service delivery leverages the strengths of in-house staff, including direct customer interaction, with the specialized expertise and reach of dedicated service providers.

1 Hydro One believes this approach will best support its commitment to achieving its  
2 CDM targets while ensuring quality service to its customers.

3  
4 The “weakness” referred to in the above-referenced CDM presentation was in relation  
5 to a pure out-sourced model of service delivery and the statement is therefore being  
6 taken out of context. Hydro One’s hybrid method avoids this shortcoming, as the  
7 presentation made clear.  
8

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #12 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 14**

Hydro One states that it plans to have an additional 27.6kV supply to serve the subject area and can be augmented, from new sources that will be built.

- a) Given its ability to access the 38M50 and 38M49 feeders, Erie Thames can service the subject area in an economically efficient manner that optimizes the use of existing infrastructure and system configuration and which would result in lower incremental connection costs for customers. What is the expected cost for Hydro One's additional 27.6kV supply?
- b) What are the new sources of supply referenced above and what are the expected costs?
- c) What are the timelines for the additional 27.6kV supply and the new sources referenced above?
- d) If Hydro One supplies the subject area, what portion of this expansion should be allocated to this new development?
- e) If Hydro One introduces a new source of supply via a new 27.6kV circuit, would Hydro One need to take a new route to feed the subject area? If so, would it be substantially longer than the more direct supply route proposed by Erie Thames in its application? If yes, would this result in higher reliability risks for the subject area?

**Response**

- a) As has been stated in previous interrogatory responses and in Hydro One's evidence, the future plan to have an additional 27.6 kV supply in the area is part of Hydro One's long-term system plan to accommodate expected future growth in the area. Hydro One will not be extending a circuit into this area because of the proposed development. Any future upgrades, such as the extension of a circuit would be as a result of load growth and the costs would be estimated at such time. Hydro One's existing assets do not need to be upgraded to serve this development. Hydro One notes, as written on page 5 of the ET application (lines 23-27), that Erie Thames does not currently have an ability to backfeed the new development and would have to build additional facilities in the future to do so.
- b) The circuit that could possibly be extended into this area would be the 38M44 feeder out of Ingersoll TS. There is no cost estimate for this option at this time since it is not currently in our business plan and is not required to serve the development.
- c) Hydro One does not have a timeline for the additional 27.6 kV supply as the decision to proceed with the extension will depend on future load growth in the area.

1  
2 d) Hydro One would not allocate costs to this development as the need for expansion  
3 would result from natural load growth, not the addition of the subdivision.  
4

5 e) If Hydro One introduces a new supply to this area it will follow a new route which  
6 would likely be longer than the existing supply to this area. The configuration will  
7 depend on how loads grow in both the Hydro One service territory as well as the ET  
8 service territory since Hydro One supplies both areas. Using an alternate path in this  
9 way to provide a backup source of supply would improve reliability in the area for  
10 both utilities.  
11

12 The additional circuit would be added to meet load growth in the area and this would  
13 occur in order to provide the needed supply, regardless of which utility served the  
14 proposed development that is the subject of this application.  
15

1 **Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #13 List 1**

2  
3 **Interrogatory**

4  
5 **Reference: Hydro One Intervenor Evidence, Question 15**

6  
7 Hydro One states that there will be no rate impacts on Hydro One Networks existing  
8 customers as a result of the new connection.

- 9  
10 a) Will there be rate impacts on existing and future customers if Hydro One introduces  
11 the long-term plan referenced in Hydro One's Intervenor Evidence Questions 7 and  
12 11 in order to adequately supply the subject area?

13  
14 **Response**

- 15  
16 a) Contrary to the premise in this question, Hydro One does not need to introduce a  
17 long-term plan to adequately supply this development as noted in Hydro One's  
18 response to Tab 2, Schedule 12 and in Hydro One's evidence. Impact on rates, if any,  
19 as a result of Hydro One's future supply would be addressed through Hydro One  
20 Distribution's rate application at a future date once the need for the expansion was  
21 established.



**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #14 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 16**

Hydro One states that Erie Thames application will decrease the smoothness of the service territory boundaries.

- a) Erie Thames currently supplies the Ing-Wood subdivision to the East of Harris Street (see Map 2B in Erie Thames' application) which was subject to an uncontested service area amendment application (EB-2007-0774). This application was supported by Hydro One. Please explain the differences between the proposed Sifton subdivision and the Ing-Wood subdivision from the perspective of border smoothness concerns.

Hydro One states that the addition of the subject development would utilize existing infrastructure. However, in Hydro One's Intervenor Evidence Questions 7 and 14, Hydro One references additional supply plans in the future are required to the service the subject area.

- b) Please explain the discrepancy between these two statements.

Hydro One contends that the customers served by Hydro One have similar characteristics to the customers expected in Phase I and the future Phase II and commercial phase of the development.

- c) Please confirm that Erie Thames' customers in the service area that is contiguous to the proposed development have similar characteristics to the expected customers in this subject area.

**Response**

- a) Hydro One supported Erie Thames' EB-2007-0774 SAA application for the following reasons with respect to economic efficiency:

- Hydro One did not have assets in the subject area adequate to connect the subdivision in question
- Erie Thames proposal to extend its existing distribution system to connect the development was a practical and low cost connection for the developer
- The Erie Thames solution did not duplicate or strand any assets of Hydro One nor Erie Thames.

As a result of the above, the smoothness of the border did not impact Hydro One's assessment that Erie Thames should connect that subdivision.

1  
2 In the current application the situation is not the same. Hydro One does not believe it  
3 is more economically efficient for Erie Thames to connect the subdivision. Hydro  
4 One has assets in the subject area adequate to connect the subdivision, the cost to the  
5 developer will be lower if Hydro One serves the subdivision, and if Erie Thames was  
6 to connect there would be duplication of assets in the area.  
7  
8

- 9 b) There are no discrepancies between the two statements. Hydro One notes that ET's  
10 question incorrectly states that according to Hydro One's intervenor evidence at  
11 Questions 7 and 14, "additional supply plans in the future **are required** *[emphasis*  
12 *added]* to service the subject area." There is no such requirement and Hydro One's  
13 evidence does not indicate that there is. As indicated in Question 7, page 3 of Hydro  
14 One's evidence:  
15

16 "Hydro One's system has more than enough capacity to  
17 supply this development. In addition, Hydro One's long  
18 term plans are to extend another circuit into the area."  
19

- 20 c) Hydro One is not in a position to comment on the characteristics of customers in Erie  
21 Thames service area.

**Erie-Thames Powerlines Corporation (ErieThames) INTERROGATORY #15 List 1**

**Interrogatory**

**Reference: Hydro One Intervenor Evidence, Question 17**

Hydro One has submitted that there is no compelling reason that Erie Thames' solution is a more rational or efficient realignment.

Erie Thames has submitted that (i) Erie Thames is contiguous to the subject area, (ii) Erie Thames offers lower rates to its end users, (iii) Erie Thames has the existing infrastructure and backup feeders to supply the subject area which would be maximized before a new source of supply is required, (iv) the developer and the Town of Ingersoll support Erie Thames' proposal, (v) Erie Thames offers a lower connection cost, and (vi) there are no currently no Hydro One assets on the subject property. Please confirm that Hydro One contends that none of the above are compelling reasons for a rational and efficient realignment.

**Response**

As the incumbent distributor, Hydro One believes that its connection of the new development is a better solution and more consistent with the principles of RP-2003-0044. Hydro One does not agree that the reasons Erie Thames has listed above are compelling for the applied-for SAA.

The Board must balance a range of considerations in assessing an application for a SAA, consistent with the principles outlined in RP-2003-0044. No single consideration is determinative.

Hydro One will provide a more comprehensive response in Argument.

**Ontario Energy Board (Board Staff) INTERROGATORY #1 List 2**

**Interrogatory**

In its economic evaluation Hydro One used an average consumption of 613.65 kWh for the projected revenue calculation while Erie Thames estimated consumption of 750 kWh which is in accordance with consumption statistics published in 2010 Yearbook of Electricity Distributors.

- a) Please explain what consumption statistics have been used to estimate an average consumption of 613.65 kWh.
- b) Please file a revised economic evaluation based on average consumption of 750 kWh in order to make projected revenue and O&M expenses comparable with Erie Thames'.

**Response**

- a) Hydro One's estimate of an average consumption of 613.65 kWh is based on a 1500 square foot residential home (rate class R1) with baseload and air conditioning uses. The parameters used to determine kWh consumption take into account current building code requirements. The use of a usage-specific consumption estimate for new connections is based on prior Board Staff advice to Hydro One that class average consumption estimates did not provide the requisite degree of specificity.
- b) Hydro One has provided revised economic evaluations based on an average consumption of 750 kWh. The first, filed as Appendix A, assumes all customer connections occur in year one. The second evaluation, filed as Appendix B, assumes customer connections are staggered over five years using the same pattern that was included in Erie-Thames' economic evaluation. Please note that for the reasons given in the response to Erie Thames Interrogatory 1, List 2, these economic evaluations exclude the cost of civil work that would be paid for by the developer.

**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Year One In-service**

CAPITAL COSTS				
<b>NON CONTESTABLE</b>				
<b>Engineering &amp; Design</b>				
	Design Costs	\$	4,188.75	
<b>Subdivision Secondary Costs</b>				
	Material		15,413.34	
	Labour		21,921.63	
	Equipment		12,408.47	
	Other Miscellaneous		2,895.31	
	Administration & Overhead		4,136.16	
			<u>56,775</u>	
<b>Subdivision Primary Costs</b>				
	Material		9,340.18	
	Labour		6,606.51	
	Equipment		3,739.54	
	Other Miscellaneous		872.56	
	Administration & Overhead		1,246.51	
			<u>21,805</u>	
<b>Total Non Contestable</b>		<b>\$</b>	<b>82,769</b>	Line 1
<b>CONTESTABLE WORK</b>				
<b>Subdivision Secondary Costs</b>				
	Material		27,062.27	
	Labour		14,061.42	
	Equipment		7,959.30	
	Other Miscellaneous		1,857.17	
	Administration & Overhead		2,653.10	
			<u>53,593</u>	
<b>Subdivision Primary Costs</b>				
	Material		34,592.81	
	Labour		10,989.41	
	Equipment		6,220.42	
	Other Miscellaneous		1,451.43	
	Administration & Overhead		2,073.47	
			<u>55,328</u>	
<b>Total Contestable</b>		<b>\$</b>	<b>108,921</b>	
<b>TOTAL NON CONTESTABLE &amp; CONTESTABLE</b>		<b>\$</b>	<b>191,690</b>	Line 2

**ITEMS ABOVE STANDARD CONNECTION**

Pad-mount Transformer \$ 7,063.70 Line 3

**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Year One In-service**

OPERATING & MAINTENANCE COSTS		
Estimated Connection O&M per year (54 customers)	\$	6,495
Subdivision Underground Line based on 877m		906
Estimated Reinforcement O&M per year (54 customers)		11,873
<b>Estimated Annual O&amp;M</b>	<b>\$</b>	<b>19,274</b>
Estimated O&M over 25 years	\$	481,838
PV of O&M Costs @ 6.18% discount rate (mid-period)		\$249,509

Line 5

REVENUE ASSUMPTIONS		
Volume	54 units @ 750 average kWh per year	40,500
	Rate Class R1	
	Cents per kWh for delivery charges <sup>1</sup>	0.03317
	Monthly Energy Charge	\$ 1,343
	Service charge <sup>2</sup>	\$ 19.72
	# Units	54
	Monthly Service Charge	\$ 1,065
	<b>Total Monthly Revenue</b>	<b>\$ 2,408</b>
	<b>Annual revenue</b>	<b>\$ 28,899</b>
	25 years revenue	\$ 722,481
	Discount rate - annual (mid-period)	6.18%
	PV of 25 Years Revenue @ 6.18% discount rate (mid-period)	\$374,120
Notes:	(1) Based on HONI Distribution Volumetric rate effective January 1, 2011, excluding rate rider recovery	
	(2) Based on HONI Service Charge rates effective January 1, 2011, excluding Smart Meter Adder	

Line 6

**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Year One In-service**

CAPITAL CONTRIBUTION CALCULATION				
			Hydro One Completes Contestable and Non-Contestable work	
Total Capital Costs	Lines 1 & 2	\$	191,690	
PV Capital Costs		\$	191,690	Line 2A
PV of O&M Cost (25 years)	Line 5	\$	249,509	
Total Cost to Connect	Line 2A + Line 5	\$	441,199	Line 7
PV of Revenue (25 years)	Line 6	\$	374,120	
<u>Taxes, Tax Credits and Other</u>				
PV Income Taxes			34,968	
CCA Tax Shield and Municipal Taxes			(15,662)	
PV Working Capital			1,752	
PV of Taxes, Tax Credits and Other			21,058	
Revenue after Tax			353,062	Line 8
Contribution Required - Included Items	Line 7 - Line 8	\$	88,136	Line 9
<u>Add: Excluded Items</u>				
Padmount Transformer	Line 3		7,064	Line 10
Contribution Required - Included & Excluded Items	Line 9 + lines (10+11)	\$	95,200	Line 11

**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Staggered In-service**

CAPITAL COSTS			
<b>NON CONTESTABLE</b>			
<b>Engineering &amp; Design</b>			
	Design Costs	\$	4,188.75
<b>Subdivision Secondary Costs</b>			
	Material		15,413.34
	Labour		21,921.63
	Equipment		12,408.47
	Other Miscellaneous		2,895.31
	Administration & Overhead		4,136.16
			<u>56,775</u>
<b>Subdivision Primary Costs</b>			
	Material		9,340.18
	Labour		6,606.51
	Equipment		3,739.54
	Other Miscellaneous		872.56
	Administration & Overhead		1,246.51
			<u>21,805</u>
<b>Total Non Contestable</b>		<b>\$</b>	<b>82,769</b>
<b>CONTESTABLE WORK</b>			
<b>Subdivision Secondary Costs</b>			
	Material		27,062.27
	Labour		14,061.42
	Equipment		7,959.30
	Other Miscellaneous		1,857.17
	Administration & Overhead		2,653.10
			<u>53,593</u>
<b>Subdivision Primary Costs</b>			
	Material		34,592.81
	Labour		10,989.41
	Equipment		6,220.42
	Other Miscellaneous		1,451.43
	Administration & Overhead		2,073.47
			<u>55,328</u>
<b>Total Contestable</b>		<b>\$</b>	<b>108,921</b>
<b>TOTAL NON CONTESTABLE &amp; CONTESTABLE</b>		<b>\$</b>	<b>191,690</b>

Line 1

Line 2

**ITEMS ABOVE STANDARD CONNECTION**

Pad-mount Transformer \$ 7,063.70 Line 3



**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Staggered In-service**

<b>OPERATING &amp; MAINTENANCE COSTS</b>		
Estimated Connection O&M per year (54 customers)	\$	6,495
Subdivision Underground Line based on 877m		906
Estimated Reinforcement O&M per year (54 customers)		11,873
<b>Estimated Annual O&amp;M</b>	<b>\$</b>	<b>19,274</b>
Estimated O&M over 25 years	\$	453,096
PV of O&M Costs @ 6.18% discount rate (mid-period)		\$222,976

Line 5

<b>REVENUE ASSUMPTIONS</b>		
Volume	54 units @ 750 average kWh per year	40,500
	Rate Class R1	
	Cents per kWh for delivery charges <sup>1</sup>	0.03317
	Monthly Energy Charge	\$ 1,343
	Service charge <sup>2</sup>	\$ 19.72
	# Units	54
	Monthly Service Charge	\$ 1,065
	<b>Total Monthly Revenue</b>	<b>\$ 2,408</b>
	<b>Annual revenue</b>	<b>\$ 28,899</b>
	25 years revenue	\$ 677,258
	Discount rate - annual (mid-period)	6.18%
	PV of 25 Years Revenue @ 6.18% discount rate (mid-period)	\$332,374
Notes:	(1) Based on HONI Distribution Volumetric rate effective January 1, 2011, excluding rate rider recovery	
	(2) Based on HONI Service Charge rates effective January 1, 2011, excluding Smart Meter Adder	

Line 6

**HYDRO ONE NETWORKS INC.**  
**EB-2011-0085 ERIE THAMES POWERLINES SAA**  
**ECONOMIC EVALUATION**  
**SIFTON DEVELOPMENT**

**UPDATED -- 750 kWh and Staggered In-service**

CAPITAL CONTRIBUTION CALCULATION				
			<b>Hydro One Completes Contestable and Non-Contestable work</b>	
Total Capital Costs	Lines 1 & 2	\$	191,690	
PV Capital Costs (staggered installation) *		\$	171,242	Line 2A
PV of O&M Cost (25 years)	Line 5	\$	222,976	
Total Cost to Connect	Line 2A + Line 5	\$	394,219	Line 7
PV of Revenue (25 years)	Line 6	\$	332,374	
<u>Taxes, Tax Credits and Other</u>				
PV Income Taxes			41,630	
CCA Tax Shield and Municipal Taxes			(21,255)	
PV Working Capital			1,559	
PV of Taxes, Tax Credits and Other			21,933	
Revenue after Tax			310,441	Line 8
Contribution Required - Included Items	Line 7 - Line 8	\$	83,778	Line 9
<u>Add: Excluded Items</u>				
Padmount Transformer	Line 3		7,064	Line 10
Contribution Required - Included & Excluded Items	Line 9 + Line 10	\$	90,842	Line 11

\* Staggered installation based on the following schedule: Years 1 - 4: 11/year; Year 5: 10; Total: 54.  
Total Capital is pro-rated to each year based on the installation schedule.

**Ontario Energy Board (Board Staff) INTERROGATORY #2 List 2**

**Interrogatory**

There appears to be an inconsistency between Hydro One's and Erie Thames' assumptions for customer connections used in the economic evaluations. In Erie Thames' economic evaluation it is assumed that customer connections are staggered over five years, while in Hydro One's its is assumed that all customers are connected in one year.

Please confirm the correct timing for customer connections and, if required, provide a revised economic evaluation that corresponds to that timing so that comparisons can be made on the same assumptions.

**Response**

Hydro One is not aware of the correct timing of connections. In order to facilitate the required comparison with Erie Thames' material, an economic evaluation using a staggered in-service schedule is shown in the response to Board Staff IR # 1, List 2, Appendix B. The staggered in-service schedule follows the same timing used by Erie Thames.

**Ontario Energy Board (Board Staff) INTERROGATORY #3 List 2**

**Interrogatory**

As per section 1 of Procedural Order #2 the Board requested that each distributor files a detailed economic evaluation that includes a detailed description of all capital costs. Hydro One only provided a high level overview of their capital costs.

Please provide a detailed description of all capital costs included in economic evaluation.

**Response**

The table below provides a detailed description of all capital costs for Contestable and Non-Contestable Work on a work package basis. Capital costs by asset class are not readily available from Hydro One's cost estimation tool. Please note that the total cost below of \$198,753 includes the cost of a padmount transformer (\$7,064). The padmount transformer cost was treated as an above-standard (below the line) item in the cost table filed on Aug. 26, 2011.

<b>Non-Contestable Work</b>	
Engineering & Design	
Subdivision Design Cost	\$4,189
Subdivision Secondary Costs (1)	
Transformation and related costs	28,801
Services – Secondary Connections and Related Costs	35,037
Subdivision Primary Costs	
Switchgear & Fault Indicators	6,070
Primary Terminations & Related Items	15,735
<b>Total Non-Contestable</b>	<b>\$89,832</b>
<b>Contestable Work</b>	
Primary Cable – Supply & Install	55,328
Secondary Cable (Supply & Install includes lot line splices)	53,593
<b>Total Contestable Work</b>	<b>\$108,921</b>
<b>Total</b>	<b>\$198,753</b>

(1) includes padmount transformer (\$7,064)