



*Your Home Town Utility*



**VIA WEB PORTAL AND COURIER**

September 14, 2011

Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
Suite 2700  
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: EB-2011-0085 – Erie Thames Powerlines Corporation's Application for a Service Area Amendment – Procedural Order No. 2**

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Please find enclosed two (2) copies of Erie Thames Powerlines Corporation's responses to the interrogatories of Board Staff and Hydro One Networks Inc.'s in connection with the above-referenced proceeding.

An electronic copy of this cover letter and the attached interrogatories have been filed through the Board's Regulatory Electronic Submission System.

Sincerely,

*ORIGINAL SIGNED BY PAT ZIMMER*

Pat Zimmer  
Regulatory & Administrative Assistant  
Erie Thames Powerlines Corporation

cc: Mr. Andrew Skalski, Hydro One Networks Inc.



### **Response to Board Staff's Interrogatories**

#### **Interrogatory #1**

As per Appendix B of the Distribution System Code an estimate of all capital costs directly associated with the expansion should be included in the calculation of the present value of the projected capital costs. In its economic evaluation Erie Thames only included capital costs of \$97,884 although the total expansion cost is estimated to be \$242,256.

- a) Please explain why all capital costs have not been included in the calculation of the present value of the projected capital costs.
- b) Please file revised economic evaluation including all the capital costs of \$242,256.

#### **Response:**

- a) Erie Thames respectfully submits that all capital costs of \$242,256 have been included in the calculation of the present value of the projected capital costs. In particular, all capital costs of \$242,256 have been reflected in the following areas of Erie Thames economic evaluation submitted on August 26, 2011 (the "Economic Evaluation"):
  - Summary of Results for Sifton Subdivision (Page 3 of 32 of the Economic Evaluation, a copy of which is attached to this response as Exhibit A) – The total capital cost amount of \$242,256 is reflected as the total under the heading "Total Expansion Cost".
  - Capital Cost Inputs – Actual Capital Costs (Page 6 of 32 of the Economic Evaluation, a copy of which is attached to this response as Exhibit A) - The total capital cost amount of \$242,256 is reflected as the total of actual capital costs in 2011, 2012, 2013, 2014 and 2015.
  - In the contents of Appendix B.1 - Common Elements of the Discounted Cash Flow Model attached at the end of the Economic Evaluation (page 28 of 32, a copy of which is attached to this response as Exhibit A), the total capital cost amount of \$242,256 is reflected under the heading "An estimate of all capital costs directly associated with the expansion to allow forecast customer additions." The amount is broken down into non-contestable electrical plant (\$73,075), contestable electrical plant (\$149,741) and service (\$19,440) installation costs.

Erie Thames has assumed that Board staff's interrogatory above is related to some confusion around Erie Thames' use of the term "LDC Investment" in the Economic Evaluation instead of "LDC Net Present Value Cash Flow". (A revised Summary of Results for Sifton Subdivision with this amended terminology is attached as Exhibit B to this response for the Board's reference). This \$97,884 in Net Present Value Cash Flow is the revenue earned by Erie Thames over the 25 year period. Erie Thames respectfully submits that this \$97,884 in revenue is distinct from the \$242,256 in capital costs associated with the project. The only time that these revenues and costs are

correlated is when determining the amount of the customer's contributed capital. In other words, the cost of the project less the cumulative net present value (LDC's revenue) equals the amount of contributed capital.

- b) As discussed in a) above, Erie Thames respectfully submits that all capital costs of \$242,256 have been included in the calculation of the present value of the projected capital costs. Accordingly, Erie Thames has not filed a revised economic evaluation.

#### Interrogatory #2

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

The economic evaluation model used by Erie Thames was designed to comply with Appendix B of the Distribution System Code (DSC) and uses a five year connection horizon (in compliance with a maximum connection horizon in Appendix B.)

Unfortunately, the exact timing for customer connections in the proposed Sifton development is not known at this time and, accordingly, neither Erie Thames' or Hydro One's assumptions for customer connection are entirely precise. Nonetheless, Erie Thames is confident that its assumption that customer connections are staggered over five years is the more prudent approach based on the following:

- Given its knowledge of the slow growth subject area and the timing of customer connections in similar subdivisions in the Town of Ingersoll, Erie Thames submits that its staggered five year connection assumption is more accurate than Hydro One's one-size-fits-all assumption that all customers will be connected in the first year. In Erie Thames' experience, no subdivisions in the Town of Ingersoll have been sold out in the first year and lots often remain unsold and unconnected after five years.
- Erie Thames' submits that staggering the customer connections over a five year horizon is more prudent because it ensures that Erie Thames only reimburses the developer once a connection is energized and the broader rate base is not subsidizing new developments before customers are connected.

Erie Thames appreciates the Board's desire that comparisons can be made on the same assumptions. On this point, Erie Thames presented a cost comparison table in Tab 8 of the

appendices of its original service area amendment application that illustrated all connections occurring in the first year for both distributors. Erie Thames submits that is not a material difference between the one year and five year connection horizon.

**Response to Hydro One Network Inc.'s Interrogatories**

**Interrogatory #1**

- a) Please confirm that the last cost of service application that Erie Thames Powerlines (ETP) submitted and had approved by the OEB was EB-2007-0928 for 2008 distribution rates.
- b) If part a) above is confirmed, please indicate where the enhancement costs referred to in Appendix B above of the DSC are included in ETP's economic evaluation of the Sifton subdivision, and show the amounts.
- c) If enhancement costs have not been included, please explain why not and indicate what method ETP uses to recover the costs of system enhancements. Specifically, if enhancement costs are not recovered on a \$/kW basis on each expansion, please specify the method used to recover these costs that is consistent with the referenced DSC provisions.
- d) ETP's previously filed evidence and cost estimate indicate that an expansion of ETP's system is required to reach the Sifton subdivision. If enhancement costs have not been included, please estimate ETP's annual average enhancement costs on a \$/kW basis using the Appendix B methodology and indicate what the enhancement amount chargeable to the Sifton Subdivision new connection would be, if an enhancement cost were included.

**Response:**

- a) ETP confirms that the last cost of service application it submitted and had approved by the Board was EB-2007-0928 for 2008 distribution rates.
- b) The appropriate enhancement costs referred to in Appendix B above of the DSC have been included in ETP's economic evaluation of the Sifton subdivision as described in c) and d) below.
- c) ETP recognizes that Appendix B of the DSC allows for an economic evaluation to include a per kilowatt enhancement cost estimate based on a historical three to five year rolling average of actual enhancement costs incurred in system expansions. ETP understands that the purpose of including the per kilowatt enhancement costs in the economic evaluation is to reflect the cost of future "enhancements" (as defined in section 1.2 of the DSC).

There have been no enhancement costs related specifically to system expansions within the subject area within the past five years and, accordingly, the historical three to five year rolling average of actual enhancement costs incurred in system expansions for ETP is \$0.00 per kW. Erie Thames submits that it has undertaken enhancements in its service territory but they have only been related to replacing end of life assets in connection with Erie Thames' normal asset management

planning. As a result, the appropriate enhancement costs (i.e. nil) have been included in Erie Thames' Economic Evaluation.

- d) Erie Thames respectfully submits that Hydro One appears to be using the terms "enhancement" and "expansion" interchangeably and, as such, is confusing the issue. The definitions of these terms as set out in section 1.2 of the DSC are set out below:

- *"enhancement" means a modification to the main distribution system that is made to improve system operating characteristics such as reliability or power quality or to relieve system capacity constraints resulting, for example, from general load growth, but does not include a renewable enabling improvement;*
- *"expansion" means a modification or addition to the main distribution system in response to one or more requests for one or more additional customer connections that otherwise could not be made, for example, by increasing the length of the main distribution system, and includes the modifications or additions to the main distribution system identified in section 3.2.30 but in respect of a renewable energy generation facility excludes a renewable enabling improvement;*

The "expansion" of ETP's system referenced in ETP's service area amendment application relates to the construction of one pole span to reach the Sifton development. ETP submits that the immaterial cost of this "expansion" have been included in the Economic Evaluation and, moreover, this cost is not relevant to the per kilowatt "enhancement" cost estimate required under Appendix B of the DSC.

As described in c) above, ETP's historical three to five year rolling average of actual enhancement costs incurred in system expansions is \$0.00 per kW and, accordingly, the appropriate enhancement costs referred to in Appendix B above of the DSC have been included in ETP's economic evaluation of the Sifton subdivision.

## **Exhibit A**

Attached to this Exhibit A is the following:

- Summary of Results for Sifton Subdivision (Page 3 of 32 of the Economic Evaluation)
- Capital Cost Inputs – Actual Capital Costs (Page 6 of 32 of the Economic Evaluation)
- Appendix B.1 - Common Elements of the Discounted Cash Flow Model attached at the end of the Economic Evaluation (page 28 of 32 of the Economic Evaluation)

# Erie Thames Economic Evaluation Model

## Summary of Results For Sifton Subdivision

Capital Costs	Total Expansion <u>Cost</u>	<u>%</u>	LDC <u>Investment</u>
Cost of Electrical Installation	\$0.00	0%	\$0
Transformer Equipment	\$0	0%	\$0
Poles Towers and Fixtures	\$14,525	6%	\$5,869
O/H Conductors	\$2,383	1%	\$963
U/G Conduit	\$80,870	33%	\$32,676
U/G Conductors	\$47,320	20%	\$19,120
Line transformers	\$77,718	32%	\$31,402
Services	\$19,440	8%	\$7,855
Unmetered Load	\$0	0%	\$0
0	\$0	0%	\$0
Land	\$0	0%	\$0
<b>Total</b>	<b>\$242,256.00</b>	<b>100%</b>	<b>\$97,884</b>

**LDC Capital Investment** \$97,884

### LDC Record of Investments

	<u>New Connections</u>	<u>Annual Investment</u>	<u>Accumulated Investment</u>		<b>Price Per Lot Paid by Powerlines</b>
<b>2011</b>	11	\$25,144	\$25,144.00	<b>2011</b>	\$2,285.82
<b>2012</b>	11	\$20,762	\$20,762.00	<b>2012</b>	\$1,887.45
<b>2013</b>	11	\$19,042	\$19,042.00	<b>2013</b>	\$1,731.09
<b>2014</b>	11	\$18,008	\$18,008.00	<b>2014</b>	\$1,637.09
<b>2015</b>	10	\$14,928	\$14,928.49	<b>2015</b>	\$1,492.85
<b>Total</b>	<b>54</b>	<b>\$97,884</b>			

**Customer Capital Contribution** \$144,372

### Adjustment For Capacity Enhancements (Upstream) Costs

	<u>Annual Investment</u>	<u>Upstream Costs</u>	<u>Due to Customer</u>
<b>2011</b>	\$25,144	\$0	\$25,144
<b>2012</b>	\$20,762	\$0	\$20,762
<b>2013</b>	\$19,042	\$0	\$19,042
<b>2014</b>	\$18,008	\$0	\$18,008
<b>2015</b>	\$14,928	\$0	\$14,928

Street Light	
Unmetered Load	
0	
0	

#### Actual Customer Connection

	2011	2012	2013	2014	2015
Residential	11	11	11	11	10
GS< 50					
GS> 50					
Intermediate					
Large Use					
Sentinel Light					
Street Light					
Unmetered Load					
0					
0					
Total	11	11	11	11	10

#### Capital Cost Inputs

##### Actual Capital Costs

	2011	2012	2013	2014	2015
Buildings and Fixtures	\$0				
Transformer Equipment	\$0				
Poles Towers and Fixtures	\$14,525				
O/H Conductors	\$2,383				
U/G Conduit	\$80,870				
U/G Conductors	\$47,320				
Line transformers	\$77,718				
Services	\$3,960	\$3,960	\$3,960	\$3,960	\$3,600
Unmetered Load					
0					
Land					
Total	\$226,776	\$3,960	\$3,960	\$3,960	\$3,600

Please Note: Land is a fixed capital category because it is the only capital cost to attract municipal tax. In addition, Land does not depreciation for accounting or income tax purposes. If you do not have Land in the project then leave the input field blank.

	2011	2012	2013	2014	2015
Annual O&M Cost per Customer	\$113.04	\$113.04	\$113.04	\$113.04	\$113.04
Annual O&M Cost per kWh					
Annual O&M Cost per kW					

##### Upstream Costs per Customer

##### Financial Assumptions

	Depreciation Rates %	Capital Cost Allowance Rates %
Buildings and Fixtures	4	4
Transformer Equipment	4	4
Poles Towers and Fixtures	4	4
O/H Conductors	4	4
U/G Conduit	4	4
U/G Conductors	4	4
Line transformers	4	4
Services	4	4
Unmetered Load	4	4
0		
Land		

Please Note: Land will not have a depreciation or CCA rate applied to it because it is a non depreciating asset. However, provision for a capital overhead rate on Land has been provided if required for evaluation purposes

	2011	2012	2013	2014	2015
LDC Debt Ratio (%)	60	60	60	60	60
Debt Rate (%)	6.15	6.15	6.15	6.15	6.15
Equity Rate (%)	8.15	8.15	8.15	8.15	8.15

Municipal Tax Rate (%)					
Capital Tax Rate (%)	0.2250	0.2250	0.2250	0.2250	0.2250
Income Tax Rate (%)	30.06	30.06	30.06	30.06	30.06



## APPENDIX B – METHODOLOGY AND ASSUMPTIONS FOR AN OFFER TO CONNECT ECONOMIC EVALUATION

### Capital Costs

Common elements will be as follows:

- (a) An estimate of all capital costs directly associated with the expansion to allow forecast customer additions.

Non-Contestable Electrical Plant Installation			Contestable Electrical Plant Installation			Service Installation	
Material	\$	44,329.20	Material	\$	43,552.98	# of Lots	54
Labour & Trucks	\$	26,617.72	Labour & Trucks	\$	101,826.73	\$ Per Lots	\$ 360.00
Overheads	\$	2,128.41	Overhead	\$	4,361.39	subtotal	\$19,440.00
Sub Total	\$	73,075.33	Sub Total	\$	149,741.10	HST	\$ 2,527.20
HST	\$	9,499.79	HST	\$	19,466.34		\$21,967.20
Total	\$	82,575.12	Total	\$	169,207.44		

- (b) For expansions to the distribution system, costs of the following elements, where applicable, should be included:
- distribution stations;
  - distribution lines;
  - distribution transformers;
  - secondary busses;
  - services; and
  - land and land rights.

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
<b>Buildings and Fixtures</b>	\$0				
<b>Transformer Equipment</b>	\$0				
<b>Poles Towers and Fixtures</b>	\$14,525				
<b>O/H Conductors</b>	\$2,383				
<b>U/G Conduit</b>	\$80,870				
<b>U/G Conductors</b>	\$47,320				
<b>Line transformers</b>	\$77,718				
<b>Services</b>	\$3,960	\$3,960	\$3,960	\$3,960	\$3,600
<b>Unmetered Load</b>	0				
<b>Land</b>					
<b>Total</b>	\$226,776	\$3,960	\$3,960	\$3,960	\$3,600

Note that the “Ownership Demarcation Point” as specified in the distributor’s Condition of Service would define the point of separation between a customers’ facilities and distributor’s facilities.

## **Exhibit B**

A revised Summary of Results for Sifton Subdivision with amended terminology is attached.

# Erie Thames Economic Evaluation Model

## Summary of Results For Sifton Subdivision

Capital Costs	Total Expansion Cost	%	LDC NPV Cash Flow
Cost of Electrical Installation	\$0.00	0%	\$0
Transformer Equipment	\$0	0%	\$0
Poles Towers and Fixtures	\$14,525	6%	\$5,869
O/H Conductors	\$2,383	1%	\$963
U/G Conduit	\$80,870	33%	\$32,676
U/G Conductors	\$47,320	20%	\$19,120
Line transformers	\$77,718	32%	\$31,402
Services	\$19,440	8%	\$7,855
Unmetered Load	\$0	0%	\$0
0	\$0	0%	\$0
Land	\$0	0%	\$0
<b>Total</b>	<b>\$242,256.00</b>	<b>100%</b>	<b>\$97,884</b>

**NPV of Cash Flows** \$97,884

## LDC Record of Investments

	<u>New Connections</u>	<u>Annual Investment</u>	<u>Accumulated Investment</u>		<b>Price Per Lot Paid by Powerlines</b>
<b>2011</b>	11	\$25,144	\$25,144.00	<b>2011</b>	\$2,285.82
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<b>Total</b>	<b>54</b>	<b>\$97,884</b>			

**Customer Capital Contribution** \$144,372

## Adjustment For Capacity Enhancements (Upstream) Costs

	<u>Annual Investment</u>	<u>Upstream Costs</u>	<u>Due to Customer</u>
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<b>2013</b>	\$19,042	\$0	\$19,042
<b>2014</b>	\$18,008	\$0	\$18,008
<b>2015</b>	\$14,928	\$0	\$14,928