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toronto hydro electric system

September 18, 2009

via RESS e-filing – signed original to follow by courier

Ms. Kirsten Walli, Board Secretary
Ontario Energy Board
PO Box 2319, 2300 Yonge St, 27th floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Application for Recovery of Contact Voltage Remediation Costs
EB-2009-0243

Pursuant to the Board's Procedural Order #1, issued on August 19, 2009, Toronto Hydro-Electric System Limited ("THESL") hereby submits its response to interrogatories from Board Staff, Energy Probe Research Foundation, the Canadian Union of Public Employees (Local One), and the Vulnerable Energy Consumers Coalition. THESL did not receive any interrogatories from the School Energy Coalition. Two paper copies are enclosed.

Please also note for the record in this proceeding and for the purpose of further communication that counsel for THESL in this proceeding is Mr. J. Mark Rodger, whose contact information appears below. Please include Mr. Rodger on all future communication.

Mr. J. Mark Rodger
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Yours truly,

[original signed by Colin McLorg]

Colin J. McLorg,
Manager, Regulatory Policy and Relations

encl.
CJM:jl/acc

cc: J. Mark Rodger, Counsel for THESL, by electronic mail only
Intervenors of Record for EB-2009-0243, by electronic mail only

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 1:

Reference(s): page 1

Please state why THESL is seeking recovery of its contact voltage remediation costs through a separate application rather than incorporating this request as part of its anticipated 2010 cost of service rate filing.

RESPONSE:

THESL has a responsibility to its shareholder, bondholders, and credit rating agencies to present the best information available concerning its financial results. The incremental expenditures incurred by THESL to remediate the contact voltage situation are significant with respect to its overall financial results for the fiscal year ending December 31, 2009, and the Board's decision regarding the regulatory treatment of those costs will be correspondingly significant. Had THESL not applied separately for recovery of the contact voltage costs, there would be no prospect of a Board decision by the time financial statements for 2009 need to be prepared. Therefore it was necessary for THESL to apply separately.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 2:

Reference(s): page 1

THESL states that:

> "The costs were incurred by THESL from February through March of 2009, and in one category will be continued to year end 2009."

Please state whether or not THESL is anticipating any additional contact voltage costs arising from the 2008-2009 incidents for recovery which are not included in this application.

RESPONSE:

No, THESL is not anticipating any further costs in connection with the Level III emergency.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 3:

Reference(s): page 1

a) Please state whether or not THESL is aware of any other instances of electricity distributors experiencing the contact voltage conditions and magnitude of costs that THESL experienced in the February through March 2009 period.

b) If THESL is aware of any such instances, please provide details and state what, if any, cost recovery was allowed by the affected distributors' regulators.

c) If THESL is not aware of any such instances, please state why THESL believes it experienced such unique circumstances. Please state whether there were any conditions unique to THESL's operating territory that gave rise to these circumstances and if so what they were.

RESPONSE:

a) THESL is aware that Consolidated Edison of New York has experienced contact voltage (known in that jurisdiction as "stray voltage") conditions similar to THESL, that first came to attention in January 2004. Consolidated Edison's approved annual Stray Voltage Testing costs for Rate Year 2009-2010 are USD $22.014 million (Case 08-E-0539).

b) The State of New York Public Service Commission imposed new Safety Standards for all electric utilities subject to their jurisdiction, effective January 5, 2005 (Case 04-M-0159). These Safety Standards include the requirement for annual stray voltage testing of utility electric facilities accessible to the public, using qualified voltage detection devices. The standards require that where a utility finds stray voltage, it

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

must immediately make the facility safe and repair it within a short time period thereafter. In the January 5, 2005 Order Instituting Safety Standards, the NYPSC stated the following regarding cost recovery:

> "We therefore agree with the recommendation that any utility seeking cost recovery for complying with the safety standards must demonstrate that the costs it incurs are incremental to the amounts included in its rates. Additionally, the utilities are cautioned that, in considering such petitions, we will apply our traditional process for evaluating deferral accounting requests and would not favorably consider requests that do not satisfy the three elements of that process. Given the foregoing and the potential for different treatment for each utility, we will not approve cost recovery for any utility at this time. Rather, each utility that seeks authorization to recover costs for complying with the safety standards as an incremental expense is directed to file a detailed estimate, with supporting documentation and work papers, of its costs for implementing the safety standards.
>
> To be considered, the filing shall include the following elements: (i) identification and justification of the extent to which the costs are incremental to the utility's existing programs and procedures; (ii) an explanation of the extent

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

to which the costs are incremental to the utility's responsibility and obligation under PSL §65(1) to provide safe and adequate service; (iii) a demonstration that the costs satisfy the three-prong test for deferral accounting; (iv) a description of the provisions of the utility's current rate plan as it relates to these activities; (v) a proposal of the type of cost recovery the utility is seeking; and (vi) an exposition of the potential rate and bill impacts to customers." (ref: page 51 &52)

c) THESL does not assert that it experienced unique circumstances, and does not assert that conditions unique to its territory gave rise to the circumstances surrounding the incidence of contact voltage. THESL does assert that bifurcated ownership and control of secondary distribution plant contributed to the contact voltage problem.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 4:

Reference(s): pages 1, 4-5

It is stated on page 1 that:

> "Site investigations revealed that in each incident, contact voltage was caused by insulation breakdown on energized connectors, allowing voltage to energize the metal frame and cover the respective handwells."

It is further stated on pages 4 and 5 that:

> "Existing handwells were systematically inspected because it had become apparent that they had significant potential to be involved in or contribute to an incident of contact voltage. Inspection revealed numerous instances of missing plastic caps; degraded or faulty insulation; and improper repacking of the conductors."

a) Please state why THESL's ongoing maintenance programs had not identified these problems in the past.
b) Please state what percentage of the handwells inspected were found to be defective.
c) Please state whether or not THESL is undertaking any internal reviews of its maintenance procedures in light of these events.

RESPONSE:

a) During the course of normal operation, THESL performs systematic maintenance of its assets to ensure general safety and reliability. However, given that contact voltage

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

was never a problem in the past, these particular maintenance programs were not geared towards locating and/or eliminated suspected cases of contact voltage on secondary circuits, and as a result did not identify the problem.

b) A total of 9.7% or 1,454 of the 15,032 existing handwells had inherent defects requiring corrective repair or asset replacement.

c) THESL will review the annual maintenance programmes and incorporate specific maintenance programmes related to street lighting assets should the OEB approve the transfer of these assets to THESL.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 5:

Reference(s): pages 2, 8

On page 2, THESL quotes a letter which it sent to the Board on February 2, 2009, advising of the Level III emergency arising from this situation. That letter states in part that:

> "Toronto Hydro has therefore suspended all other non-emergency planned work on its system and has deployed its own utility and streetlighting crews, as well as available contractor resources on a 7 day per week, 24 hour per day basis to locate, diagnose, secure and repair to a safe condition all the suspect equipment on its distribution and streetlighting systems."

On page 8, THESL also states that:

> "Furthermore, it was necessary to suspend non-emergency planned work for the duration of the Level III project and consequently connections and other normal jobs were not being completed during this period."

a) Please clarify whether the costs claimed for recovery in this proceeding are incremental to the costs related to the non-emergency planned work that would have been incurred had this emergency not occurred.

b) If so, please state how the recovery amount was adjusted for the non-incurrence of the normal ongoing costs and the amount of this adjustment. If no such adjustment was made, please explain why.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

RESPONSE:

a) The costs claimed for recovery in this proceeding are incremental to the costs related to the non-emergency planned work that would have been incurred had this emergency not occurred, as explained in the Application at pages 5 and 6. There THESL stated in part that "THESL is committed to achieving its planned and approved levels of operations and maintenance and capital work in 2009 and will therefore at least exhaust its approved revenue requirement in this category". Since the costs for non-emergency planned work will not in fact be avoided, the costs set out in the Application are incremental and did not displace costs that would otherwise be incurred.

b) Please refer to answer a) above.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 6:

Reference(s): page 5

It is stated that a further amount of $2.41 million will be expended through the balance of 2009 for the maintenance of the scanning program on a non-emergency basis in order to ensure that further instances of contact voltage are minimized. Please state whether the scanning program is anticipated to continue beyond 2009 and, if so, what a normal annual cost level for such a program is anticipated to be.

RESPONSE:

THESL has engaged PSC on an annual contract basis to perform ongoing scanning. The contract amount is $US 4 million.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 7:

Reference(s): page 6

On this page, THESL states that the contact voltage remediation costs are exogenous in nature, which "refers to their character as having been externally imposed or required, as distinct from being discretionary and voluntarily undertaken."

a) Please state what was the exogenous event that precipitated these costs.

b) Please state if THESL is aware of any prior Board Decisions which have been based on a similar definition of exogeneity and if so please state which decisions and why THESL believes the definitions to be similar.

RESPONSE:

a) No single event (such as an ice-storm, etc.) caused the contact voltage remediation costs. However, the proximate cause of the costs was the discovery of a possibly widespread system condition in which contact voltage could occur.

b) The term "exogeneity" is simply a synonym for the term 'inability of management to control', which term was defined in the original Rate Handbook at Chapter 5, page 5, as "the cost must be attributable to some event outside of management's ability to control". As explained on pages 6 and 7 of the Application, THESL could not responsibly have declined to take immediate steps to rectify an apparent contact voltage problem and therefore the costs were non-discretionary, in the same sense storm restoration costs are non-discretionary. THESL therefore asserts that the costs sought for recovery in the Application meet the criterion of exogeneity, or as it has otherwise been known 'inability of management to control'.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

c) Many decisions of the Board concerning z-factor recovery have been based on the same criterion.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 8:

Reference(s): page 7

On this page, THESL discusses the prudence of the contact voltage control costs for which recovery is being sought and states that: "Correspondingly, the reasonableness of the measures and costs undertaken should be assessed by considering whether available alternative approaches, given the information and resources available, might have been used instead with greater effectiveness or lower cost."

a) Please state whether it is THESL's view that the Board should be assessing the prudence of these costs solely from the perspective of THESL's actions from the time the contact voltage problem came to THESL's attention and if so why. If not, please state THESL's views on the applicable timeframe the Board should be using to assess prudency.

b) Please state whether or not in THESL's view the costs incurred to correct the contact voltage conditions that are the basis of this application would have been lower if the need for this remediation had been identified as part of its ongoing maintenance program. If THESL believes this to be the case, please provide an estimate as to how much lower these costs would have been under such circumstances. If THESL believes they would have been higher, please state how much higher and why this would have been the case.

RESPONSE:

a) THESL does not seek to limit the perspectives from which the Board might consider the prudence of the contact voltage remediation costs. However, it is not clear what relevance any period before the contact voltage problem came to THESL's attention

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

might have to this Application, since in the first instance no such period has been defined and in any case THESL is not claiming any costs for such a period nor have such costs ever formed part of a previous revenue requirement.

b) THESL does not believe that there would have been any difference in the contact voltage emergency remediation costs stemming from how the underlying condition came to be discovered. If the thrust of the question is rather whether costs would have been lower had an emergency condition not existed, THESL acknowledges in the hypothetical that they would have been. THESL has no basis upon which to estimate the difference between actual costs and hypothetical costs which might have been incurred under different conditions.

RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES

INTERROGATORY 9:

Reference(s): pages 9-10

THESL proposes that of the total $14.35 million of costs for which recovery is being sought, $6.56 million of scanning costs be allocated to all classes as they were undertaken to ensure the safety of the entire distribution system, while the remaining $7.79 million related to the remediation of existing contact voltages and inspection and remediation of handwells be recovered from the Streetlighting and USL classes only.

a) Please provide THESL's views on the reasonableness of recovering all of these costs from the Streetlighting and USL classes.

b) Please provide revised Exhibits 1, 2a and 2b on the basis of recovery of all of these costs from the Streetlighting and USL classes

RESPONSE:

a) THESL does not believe it is reasonable to recover scanning costs from only the SL and USL classes since these costs are incurred to ensure the safety of the overall system for the public and employees.

b) Please see Appendix A.

Exhitbit 1 - Derivation of Rate Riders

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USE	UNMETERED SCATTER LOAD	STREETLIGHT	TOTAL
2											
3	**2009 Approved Load by Rate Class**										
4	**Number of Customers**			611,808	66,191	11,719	530	49	1,135	1	**691,433**
5	**Number of Connection**								19,907	162,450	**182,357**
6	**2009 - Cost of Service Allocation - Secondary Customer Base**			611,808	66,191	2,803	12	0	19,907	90,026	**790,747**
7											
8	**Allocators Percentages**										
9	**2009 - Cost of Service Allocation - Secondary Customer Base (%)**			77.37%	8.37%	0.35%	0.00%	0.00%	2.52%	11.38%	**100%**
10	**Connections Allocation**								18.11%	81.89%	**100%**
11			**ALLOCATOR**	**RESIDENTIAL**	**GS < 50 kW**	**GS - 50 to 1000 kW**	**GS > 1000 to 5000 kW**	**LARGE USER**	**SMALL SCATTER LOAD**	**STREETLIGHT**	**TOTAL**
12	**Scanning**	$6,555,000	**Connections Allocation**	$0	$0	-	$0	$0	$1,187,004	$5,367,996	**$6,555,000**
13	**Remediation**	$7,790,000	**Connections Allocation**	$0	$0	-	$0	$0	$1,410,642	$6,379,358	**$7,790,000**
14	**Total Recovery**	**$14,345,000**		**$0**	**$0**	**-**	**$0**	**$0**	**$2,597,646**	**$11,747,354**	**$14,345,000**

		RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
15	***2010 - Rate Riders***									
16	**Scanning**	$2,185,000	**Connections Allocation**	$ -	$ -	$ -	$ -	$ -	$ 1.63	$ 0.91
17	**Remediation**	$2,596,667	**Connections Allocation**	$ -	$ -	$ -	$ -	$ -	$ 1.94	$ 1.08
18	**Total Contact Voltage Rider**	**$4,781,667**		**$0**	**$0**	**$0**	**$0**	**$0**	**$4**	**$2**
19	***2011 - Rate Riders***	RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
20	**Scanning**	$2,185,000	**Connections Allocation**	$ -	$ -	$ -	$ -	$ -	$ 1.63	$ 0.91
21	**Remediation**	$2,596,667	**Connections Allocation**	$ -	$ -	$ -	$ -	$ -	$ 1.94	$ 1.08
22	**Total Contact Voltage Rider**	$4,781,667		$0	$0	$0	$0	$0	$4	$2
23	***2012 - Rate Riders***	RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
24	**Scanning**	$2,185,000	**Secondary Customer Base**	$ -	$ -	$ -	$ -	$ -	$ 1.63	$ 0.91
25	**Remediation**	$2,596,667	**Connections Allocation**	$ -	$ -	$ -	$ -	$ -	$ 1.94	$ 1.08
26	**Total Contact Voltage Rider**	$4,781,667		$0	$0	$0	$0	$0	$4	$2

Exhibit 2a: 2009 Distribution and Rate Rider Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				2009 Rates			2009 Rates with CV Rate Riders			2009 Increase	
2	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Total ($)	Distribution ($)	Rate Rider ($)	Total ($)	$	%
3	**Residential**										
4	100			18.29	0.57	18.86	18.29	0.57	18.86	**0.00**	**0.0%**
5	250			20.45	0.45	20.90	20.45	0.45	20.90	**0.00**	**0.0%**
6	500			24.04	0.25	24.29	24.04	0.25	24.29	**0.00**	**0.0%**
7	750			27.64	0.05	27.69	27.64	0.05	27.69	**0.00**	**0.0%**
8	1,000			31.23	-0.15	31.08	31.23	-0.15	31.08	**0.00**	**0.0%**
9	1,500			38.42	-0.55	37.87	38.42	-0.55	37.87	**0.00**	**0.0%**
10	2,000			45.61	-0.95	44.66	45.61	-0.95	44.66	**0.00**	**0.0%**
11	**GS<50 kW**										
12	1,000			41.23	0.24	41.47	41.23	0.24	41.47	**0.00**	**0.0%**
13	5,000			120.39	-1.36	119.03	120.39	-1.36	119.03	**0.00**	**0.0%**
14	10,000			219.34	-3.36	215.98	219.34	-3.36	215.98	**0.00**	**0.0%**
15	20,000			417.24	-7.36	409.88	417.24	-7.36	409.88	**0.00**	**0.0%**
16	**GS 50-999 kW**										
17	30,000	100	100	548.61	-4.02	544.59	548.61	-4.02	544.59	**0.00**	**0.0%**
18	40,000	100	100	548.61	-4.02	544.59	548.61	-4.02	544.59	**0.00**	**0.0%**
19	150,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.52	2,874.39	**0.00**	**0.0%**
20	200,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.52	2,874.39	**0.00**	**0.0%**
21	270,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
22	360,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
23	450,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
24	**GS 1000-4999 kW**										
25	300,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
26	400,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
27	500,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
28	600,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
29	800,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
30	1,000,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
31	**Large Use**										
32	1,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
33	2,000,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
34	2,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
35	3,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
36	4,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
37	5,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
38	**Street Lighting**	Connections	Mthly kVA								
39	9,182,014	159,861	26,461	666,540.82	-1,749.04	664,791.78	666,540.82	321,525.71	988,066.54	**323,274.75**	**48.6%**
40	365	1	1	20.70	-0.07	20.64	20.70	1.92	22.63	**1.99**	**9.6%**
	Unmetered										
41	**Scattered Loads**	Customers	Connections								
42	4,829,242	1,466	17,721	213,223.27	-8,161.42	205,061.85	213,223.27	55,102.55	268,325.82	**63,263.97**	**30.9%**
43	365	1	1	19.04	-0.62	18.42	19.04	2.95	21.99	**3.57**	**19.4%**

Exhibit 2b: 2009 Total Bill Impact

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
				2009				2009 with CV Rate Riders				2009 Increase	
	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	$	%
Residential													
	100			18.29	0.57	7.90	26.76	18.29	0.57	7.90	26.76	**0.00**	**0.0%**
	250			20.45	0.45	19.38	40.27	20.45	0.45	19.38	40.27	**0.00**	**0.0%**
	500			24.04	0.25	38.51	62.80	24.04	0.25	38.51	62.80	**0.00**	**0.0%**
	750			27.64	0.05	57.64	85.32	27.64	0.05	57.64	85.32	**0.00**	**0.0%**
	1,000			31.23	-0.15	78.91	109.99	31.23	-0.15	78.91	109.99	**0.00**	**0.0%**
	1,500			38.42	-0.55	121.84	159.71	38.42	-0.55	121.84	159.71	**0.00**	**0.0%**
	2,000			45.61	-0.95	164.77	209.43	45.61	-0.95	164.77	209.43	**0.00**	**0.0%**
GS<50 kW													
	1,000			41.23	0.24	78.84	120.31	41.23	0.24	78.84	120.31	**0.00**	**0.0%**
	5,000			120.39	-1.36	420.19	539.22	120.39	-1.36	420.19	539.22	**0.00**	**0.0%**
	10,000			219.34	-3.36	846.89	1,062.87	219.34	-3.36	846.89	1,062.87	**0.00**	**0.0%**
	20,000			417.24	-7.36	1,700.28	2,110.16	417.24	-7.36	1,700.28	2,110.16	**0.00**	**0.0%**
GS 50-999 kW													
	30,000	100	100	548.61	-4.02	2,597.38	3,141.97	548.61	-4.02	2,597.38	3,141.97	**0.00**	**0.0%**
	40,000	100	100	548.61	-4.02	3,347.01	3,891.60	548.61	-4.02	3,347.01	3,891.60	**0.00**	**0.0%**
	150,000	500	556	2,898.91	-24.52	13,012.92	15,887.31	2,898.91	-24.52	13,012.92	15,887.31	**0.00**	**0.0%**
	200,000	500	556	2,898.91	-24.52	16,761.06	19,635.45	2,898.91	-24.52	16,761.06	19,635.45	**0.00**	**0.0%**
	270,000	900	1,000	5,191.89	-44.52	23,428.46	28,575.83	5,191.89	-44.52	23,428.46	28,575.83	**0.00**	**0.0%**
	360,000	900	1,000	5,191.89	-44.52	30,175.11	35,322.48	5,191.89	-44.52	30,175.11	35,322.48	**0.00**	**0.0%**
	450,000	900	1,000	5,191.89	-44.52	36,921.76	42,069.13	5,191.89	-44.52	36,921.76	42,069.13	**0.00**	**0.0%**
GS 1000-4999 kW													
	300,000	1,000	1,111	5,516.79	-106.88	26,402.34	31,812.26	5,516.79	-106.88	26,402.34	31,812.26	**0.00**	**0.0%**
	400,000	1,000	1,111	5,516.79	-106.88	33,898.62	39,308.54	5,516.79	-106.88	33,898.62	39,308.54	**0.00**	**0.0%**
	500,000	1,000	1,111	5,516.79	-106.88	41,394.90	46,804.82	5,516.79	-106.88	41,394.90	46,804.82	**0.00**	**0.0%**
	600,000	2,000	2,222	10,328.24	-214.43	52,811.18	62,924.99	10,328.24	-214.43	52,811.18	62,924.99	**0.00**	**0.0%**
	800,000	2,000	2,222	10,328.24	-214.43	67,803.74	77,917.55	10,328.24	-214.43	67,803.74	77,917.55	**0.00**	**0.0%**
	1,000,000	2,000	2,222	10,328.24	-214.43	82,796.30	92,910.11	10,328.24	-214.43	82,796.30	92,910.11	**0.00**	**0.0%**
Large Use													
	1,500,000	5,000	5,556	24,535.15	-548.76	130,580.78	154,567.16	24,535.15	-548.76	130,580.78	154,567.16	**0.00**	**0.0%**
	2,000,000	5,000	5,556	24,535.15	-548.76	167,443.20	191,429.59	24,535.15	-548.76	167,443.20	191,429.59	**0.00**	**0.0%**
	2,500,000	5,000	5,556	24,535.15	-548.76	204,305.63	228,292.01	24,535.15	-548.76	204,305.63	228,292.01	**0.00**	**0.0%**
	3,000,000	10,000	11,111	46,431.26	-1,098.21	261,168.05	306,501.10	46,431.26	-1,098.21	261,168.05	306,501.10	**0.00**	**0.0%**
	4,000,000	10,000	11,111	46,431.26	-1,098.21	334,892.90	380,225.95	46,431.26	-1,098.21	334,892.90	380,225.95	**0.00**	**0.0%**
	5,000,000	10,000	11,111	46,431.26	-1,098.21	408,617.75	453,950.80	46,431.26	-1,098.21	408,617.75	453,950.80	**0.00**	**0.0%**
Street Lighting		Connections	Mthly kVA										
	9,182,014	159,861	26,461	666,540.82	-1,749.04	810,021.26	1,474,813.04	666,540.82	321,525.71	810,021.26	1,798,087.80	**323,274.75**	**21.9%**
	365	1	1	20.70	-0.07	28.80	49.44	20.70	1.92	28.80	51.43	**1.99**	**4.0%**
Unmetered Scattered Loads		Customers	Connections										
	4,829,242	1,466	17,721	213,223.27	-8,161.42	396,581.69	601,643.54	213,223.27	55,102.55	396,581.69	664,907.51	**63,263.97**	**10.5%**
	365	1	1	19.04	-0.62	26.82	45.24	19.04	2.95	26.82	48.81	**3.57**	**7.9%**

RESPONSES TO ENERGY PROBE INTERROGATORIES

INTERROGATORY 1:

Reference(s): Exhibit: Application, pages 4-5
Level III Remediation Activities

The evidence of the Applicant, beginning at line 36 of page 4, states

> Existing handwells were systematically inspected because it had become apparent that they had significant potential to be involved in or contribute to an incident of contact voltage. Inspection revealed numerous instances of missing plastic caps; degraded or faulty insulation; and improper repacking of the conductors. Any faults or sub-standard conditions found on inspection were corrected to prevent a future instance of contact voltage from occurring.

a) Were all contact voltage problems found to be associated with handwells? If not, what other components of the distribution and/or SEL systems were involved in contact voltage problems?
b) Who has access to the handwells? Who is authorized to make connections in the handwells? Who gives that authorization?
c) In THESL's view, which of the parties identified in question b) above, was responsible for maintaining the connections in the handwells? Are records kept of maintenance activities in the handwells?
d) In THESL's view, how did the handwells come to be in the condition they were i.e. with missing plastic caps, degraded or faulty insulation and improper packing of conductors?

RESPONSES TO ENERGY PROBE INTERROGATORIES

e) Does the Electrical Safety Authority ("ESA") have jurisdiction to inspect connections in the handwells prior to energization? If yes, are connections normally inspected by ESA? If no, would ESA inspection, in THESL's view, assist in preventing recurrence of contact voltage problems caused by deficiencies in handwell connections?

RESPONSE:

a) No. Not all contact voltage problems are directly related to equipment housed within handwell structures. Other problems relate to street lighting assets housed within poles and supplies to third party devices. The failed components that were typically discovered include insulated conductors and connectors, covers to access holes on poles, and grounding provisions.

b) Access to the handwells is restricted to trained personnel from both THESI and THESL, and contractors uniquely approved by THESI and THESL.

c) Connections within handwells have been installed/maintained by THESL and/or THESI personnel as the responsibility for maintaining street lighting facilities passed between these organisations through transfer of ownership. Some other connections have been installed/maintained by approved contractors operating with the approval of THESI/THESL.

Records of maintenance activities have historically been limited to primary voltage assets. It is generally more costly to track activities at the level of the secondary system, and since historically there had been no apparent need to do so, such records of maintenance of handwells were not kept.

RESPONSES TO ENERGY PROBE INTERROGATORIES

d) The handwell environment is the most hostile found within the electrical distribution plant in Toronto. These handwells do not have any form of direct drainage connection, but rely on natural dispersion of water into the surrounding soil. Accordingly, these structures are prone to repeated salt exposure, with connections immersed in saline solution/suspension for extended periods of time. The polyethylene pail is intended to provide two functions. The pail provides a physical barrier between insulated live components and the metallic frame and cover. The pail also provides an enclosed airspace where the cable connections will reside safely above the water/saline level within the structure during those times when the surrounding soil is saturated with water and the handwell is flooded. Over time the polyethylene pails become brittle and crack allowing the enclosed air to escape and ground water/saline to submerge the electrical connections. This type of submersion caused the degradation of the original insulation on the street lighting connections.

The original mechanical connectors in use and the self-amalgamating tape used toinsulate these connections were the industry standard at the time of plant installation. These connections are still commonly used in the electrical industry, however we are witnessing the end-of-life for these components.

e) The ESA has jurisdiction and normally inspects any new connections made to THESL assets, including connections in handwells, prior to energization. However, this inspection only applies to new connections, and does not impact cases of contact voltage resulting from wear and failure of assets nearing the end of their life cycle.

RESPONSES TO ENERGY PROBE INTERROGATORIES

INTERROGATORY 2:

Reference(s): Exhibit: Application, page 4
Level III Remediation Activities

The evidence of the Applicant, beginning at Line 13 on Page 4 and continuing until Line 24, summarize the actions taken to resolve contact voltage problems once they were identified.

a) How many of the contact voltage problems were caused by THESL equipment?
b) How many were caused by THESI equipment?
c) How many were caused by third party connections?

For questions a) through c) above, responses using estimated percentages will be adequate if detailed records were not kept of each contact voltage problem.

RESPONSE:

a) A total of 21% of the contact voltage problems were caused by THESL equipment.

b) A total of 25% of the contact voltage problems were caused by THESI equipment.

c) A total of 54% of the contact voltage problems were caused by customer, BIA (business improvement areas), TTC and Toronto Traffic assets.

RESPONSES TO ENERGY PROBE INTERROGATORIES

INTERROGATORY 3:

Reference(s): Exhibit: Application, page 5, Table 1
Level of Costs Incurred

The table sets out the costs of the contact voltage remediation effort.

a) Are THESI costs included in the total?

b) If yes, please provide a breakdown to show THESL and THESI costs separately.

c) If no, is THESI absorbing its costs?

RESPONSE:

a) No, they are not.

b) Please see above response.

c) Yes.

RESPONSES TO ENERGY PROBE INTERROGATORIES

INTERROGATORY 4:

Reference(s): Exhibit: Application, page 6
Recover Eligibility Analysis of Expenditures Incurred

The evidence of the Applicant, beginning at line 1 on page 6, states:

> THESL's claim of incrementality of these costs rests fundamentally on the facts that the necessity of the expenditures was unforeseen, and that the expenditures were novel. No such work had apparently been necessary previously and the project overall was certainly unprecedented on the THESL system. As a result, neither THESL nor any other party had knowledge beforehand that such expenditures might be necessary, and THESL clearly did not include these as part of its requested Opex budget for 2009.

These lines suggest that the contact voltage problem was an anomaly not seen before.

a) Please confirm whether this interpretation is correct.
b) If it is correct, how was the system managed differently when THESL, and subsequently the City owned it, so that contact voltage problems did not arise?
c) What maintenance activities did THESL perform on the system during its ownership?
d) Did the City and THESI follow a similar maintenance program during their respective ownership of the system?
e) If not, would following a regular maintenance program, in THESL's view, have prevented deterioration of the system and the resulting contact voltage problems?
f) If the answer to e) is Yes, would implementation by THESI of a regular maintenance

RESPONSES TO ENERGY PROBE INTERROGATORIES

program obviate the need for THESL to assume ownership of the SEL system?

RESPONSE:

a) Yes. This interpretation is correct.

b) There has been no change in THESL's management of its own system. The historical data on contact voltage events does not indicate a significant risk exposure to the general public. This is an emerging problem directly related to end-of-life assets.

c) THESL, as a THC affiliate, has never owned the street lighting assets. Regular maintenance is performed by THESL on all its assets, but given that contact voltage has never been a problem in the past, this maintenance was never geared towards locating and/or eliminating suspected cases of contact voltage.

d) Yes.

e) See above.

f) This question does not pertain to this Application. Please refer to the appropriate applications.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 1:

Reference(s): Application, page 3, paragraph 1

> "In order to accomplish this substantial work program as quickly and effectively as possible, all the involved resources will be directed by senior management of the distribution utility. While Toronto Hydro will make every effort to capture and record all relevant information on the equipment itself and the directly associated expenditures, it will not be possible under the conditions to segregate the crews and assets of the streetlighting affiliate from those of the distribution utility. For any location determined to require repair, the first available crew will be dispatched regardless of the precise nature of the electrical fault or of crew personnel composition."

a) Explain why THESL could not track and determine (Post event) the costs of remediation on a site specific basis in order to facilitate an appropriate allocation of these costs.
b) Why does not the utility's Work and Asset Management System work in such an emergency situation as for normal scheduled work. Please explain in detail.
c) Explain in detail why in respect of tracking of costs this situation was different than the Storm Damage Emergency of August 2009?

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

RESPONSE:

a) THESL was unable to discretely track costs incurred at each asset location due to the sheer volume of assets serviced. During this level III emergency event THESL staff and our contract partners inspected and serviced 65,499 asset locations. Discrete costing would require the creation of this same number of work orders and the transaction of unique charges to each work order. This exercise was not practical in the interest of expediently addressing this public safety concern within the time frame allowed by the OEB.

b) The THESL Work and Asset Management System (Ellipse) was not applicable during the level III emergency event because the street lighting assets did not belong to THESL and were not included in our asset register.

c) Emergency maintenance performed during storm events similar to that of August 20-21, 2009 are captured in less detail than the level III emergency event. In both cases all follow-up reactive repairs are tracked against the asset being repaired, with the newly created handwell and street light pole assets in the THESL asset register.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 2:

Reference(s): Application, page 5, Table 1

a) What is the basis of the costs claimed in Table 1? Provide the summary Worksheets showing the breakdown of costs on each line.
b) Explain in detail why Base compensation (as opposed to Overtime) for THESL staff deployed is incremental to the distribution revenue requirement? For example did THESL hire extra staff to back fill deployed staff?
c) If not included in a), provide the split in Labour costs (regular and OT) between THESL and THESC/Streetlighting.
d) Did THESL or Streetlighting not have Scanning Equipment and staff of its own that could be deployed? Explain.
e) Was the Contract for Scanning Services Tendered? If so provide details. If not on what basis was Power Survey LLC ("PSC") retained?

RESPONSE:

a) Additional information about the costs included in Table 1 is provided below.

Labour – Regular Time and Overtime:

Labour cost incurred for planning, inspection and remediation activities by internal staff. Labour costs include time for field crews and field supervision.

Electrical Contractor:

Costs incurred for inspection and repair of electrified assets by third parties. Due to the volume of work to be conducted in a short period of time, external contractors were engaged to address a portion of the work to be completed. The third parties

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

engaged were Enterra and Powerline Plus.

Scanning Contractor:
Costs incurred for the scanning of handwells and other objects to determine if they were electrified. Scanning activities were performed by Power Survey Company ("PSC").

Inventory and Materials:
Costs incurred for miscellaneous material used in the remediation work performed by internal labour and external contractors.

Other:
Primarily includes costs incurred for public communications and awareness campaigns with respect to this initiative and costs for rented and internal vehicles utilized during inspection and remediation activities.

b) THESL did not hire extra resources (other than the external contractor costs included in Table 1) to conduct its business during the Level III emergency. THESL is claiming the base compensation of the employees involved in the Level III emergency as the tasks performed by these employees were not included in the distribution revenue requirement and the time spent and related costs of such tasks were material.

Despite the delays related to the Level III emergency, THESL expects to deliver both its capital and maintenance programs for 2009. In order to do so, THESL will most

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

likely incur incremental overtime costs or incremental external contractor costs for the remainder of 2009. THESL did not believe that reducing the capital and maintenance programs for 2009 was a valid option due to the pressing need to improve its electricity infrastructure.

In addition, most of the base compensation incurred during the Level III emergency relates to employees deployed to capital programs. Under normal circumstances, the base compensation of these employees is capitalized as part of property, plant and equipment. Accordingly, only a fraction of the related costs would have been recovered in 2009 through the amortization and depreciation component of the distribution revenue requirement. THESL believes that since these costs were all expensed in 2009, THESL should be entitled to a full recovery of the costs as they were incurred.

c) The amount claimed in Table 1 only includes costs incurred by THESL. No costs incurred by THESI were included in Table 1.

d) No. Neither THESL nor THESI had the capability (i.e., technology or qualified and trained personnel) to provide mobile contact voltage detection services at the time.

e) Given the nature of the declared Level III Emergency and the urgency to protect public safety at the time, THESL retained PSC as a “Sole Source” (i.e., a tender was not issued to the market) service provider to provide mobile contact voltage detection services pursuant to corporate approved procurement policy.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

PSC was selected based on THESL/THESI research, and references provided from other Utilities particularly in the eastern United States where contact voltage is becoming increasingly problematic. PSC has successfully demonstrated the ability to provide effective mobile contact voltage detection services to many utilities throughout the world.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 3:

Reference(s): Application, page 5
Table 1 and page 6

> "THESL also submits on the same basis that the costs for continued system scanning are clearly incremental to the approved revenue requirement for 2009; these costs were unforeseen and are novel for THESL's system."

a) Is the Level III emergency over? Provide copies of any correspondence in this regard. ~~Explain in detail why Base compensation (as opposed to Overtime) for THESL staff deployed is incremental to the distribution revenue requirement? For example did THESL hire extra staff to back fill deployed staff?~~ [repeats VECC IR # 2b]

b) If the Level III Emergency is over, is THESL retaining PSC on an ongoing basis? Explain the scope, cost and duration of this arrangement.

c) Provide information concerning the number of utilities PSC has provided similar services to in the last 3 years and if available whether the work related to low voltage urban distribution systems. Indicate Canadian utilities as a subset.

d) Explain why would not a utility such as THESL conduct surveys of its underground equipment to on an ongoing basis to detect leakage/unsafe conditions (or respond to complaints) as do the gas utilities, including Enbridge Gas Distribution?

e) Does THESL have the Equipment and trained staff to do routine Inspections surveys? If not why not?

f) Why are the Ongoing Survey costs listed in Table 1 not part of ongoing operations.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

Provide a breakdown of this amount, including how the costs are allocated between distribution and Streetlighting/USL.

g) Explain why this work is not work of an ongoing nature that is prioritized along with other underground maintenance/remediation work related to both the distribution system and Streetlighting/USL.

RESPONSE:

a) Yes, the Level III emergency was deemed sufficiently mitigated on February 25, 2009, at which time THESL scaled back emergency operations to a declared Level II emergency status. Demobilization efforts continued beyond February 25 and were completed by the start of business on March 1, 2009. A copy of an inter-office email from System Operations declaring the emergency de-escalation is attached as Appendix A.

b) Yes, THESL has retained the services of Power Survey Company ("PSC") pursuant to approved corporate procurement policy effective August 2009, for a term of 36 months at a total cost of $4 M USD per annum.

PSC will provide a "turn-key" service that manages all aspects of contact voltage detection (three mobile scanning units), mitigation, and record keeping functions including support staff (technicians, inspectors, dispatchers and quality assurance technicians) dedicated solely to the operation of the PSC technology system and all support activities. Moreover, PSC will provide a complete data management system in which status information about progress of scanning operations, mitigation, and repair activities are tracked and updated daily.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

c) See response to VECC IR # 2e.

d) Regular inspection of the underground electrical and civil infrastructure is part of THESL's ongoing maintenance program. Regular inspection attempts to reveal and repair deficiencies in the infrastructure before they erode to a more severe state and cause an interruption of power or pose a hazard to employees and the public.

The existence of Contact Voltage is not specific to any utility or region. Over the years, the frequency and severity of contact voltage instances at THESL have been virtually non-existent. Moreover, until recently the technologies required to detect contact voltage were found to be unreliable and not readily available. Consequently, utilities such as THESL could not justify the expense to permanently implement contact voltage detection programs.

Today, however, for electric distributors like THESL, the severity and frequency of contact voltage have increased considerably and annual contact voltage detection surveys, mitigation, and repair programs are becoming standard practice.

e) See response to VECC IR # 2d. Contact voltage detection systems, technologies, and expertise are for the most part relatively new in the electricity sector and in many cases proprietary and not available for sale. For example, PSC was only recently formed in 2004 following a string of Contact Voltage related incidents in the eastern United States. PSC's SVD2000 mobile Contact Voltage detection technology has received international acclaim but is proprietary and is not available for sale at this time thereby precluding THESL from performing the services internally.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

f) The ongoing survey costs have historically never been part of ongoing operations because contact voltage is a new problem. However, these costs have now become part of ongoing operations, and the program will constitute part of THESL's regular maintenance activities. There is no further breakdown of the ongoing scanning cost amount. The allocation of the costs is provided at Exhibit 1 of the Application.

g) Please refer to the answer above.

From: Email Broadcast
To: Emergency Distribution List - August 2008
Date: Monday, February 23, 2009 5:43:52 PM
Subject: Level III Emergency - Standing Down

Hello Everyone,

Please be advised that Distribution Grid Operations is downgrading the Contact Voltage Emergency Level III to a Level II Emergency effective 17:30 today.

Thank you,

Dayana Bonifaz
Media Standby

CC: Dayana Bonifaz,Barry Buckley

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 4:

Reference(s): Application Page

> On March 4, 2009, the Board issued a letter to distributors (attached as Appendix 1 to this Application) addressing issues around contact voltage. Among other things, the Board stated: "Public safety is of primary importance. Uncertainty as to connection demarcation points should not inhibit or delay the correction of unsafe wiring of unmetered load. Distributors should ensure that any unsafe wiring encountered on public walkways is addressed immediately."

a) Does THESL agree that there is no demarcation point(s) between distribution and streetlighting and between distribution and unmetered scattered load?
b) Is there a difference between the physical connection points for streetlights and other loads including USL (street signs bus shelters and other street furniture. Explain in detail.
c) With regard to the lack of demarcation between distribution and streetlighting does THESL adopt the testimony of Mr. Haines in EB-2009-0180-0183?

RESPONSE:

a) In practicality THESL agrees that no clear and consistent demarcation point exists between LDC distribution plant and either street lighting or unmetered loads.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

b) In practicality these connections, which have evolved over past decades, are similar in nature.

c) Mr. Haines did not provide testimony in the proceeding named in the question.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 5:

Reference(s): Application Page 8

> In its letter of March 4, the Board also stated: "It is expected that distributors have planned for, and are able to accommodate, all necessary maintenance or isolation of connections for unmetered loads to ensure the public's safety. In this regard, distributors are also expected to recover from the customer the cost of repairs or isolation of customer owned equipment or connections. A one-time billing charge or direct invoice may be used for this purpose. Distributors should where possible discuss in advance the need for correction to customer equipment.

a) Explain in more detail why the costs cannot be recovered from the streetlighting and USL/BIA asset owner. In particular is the reason based on lack of incident reports or the inability of THESL to determine causation or both.
b) Out of the 13,000- handwells inspected, how many were found defective?
c) Provide a breakdown of the numbers according to the type of third party assets connected

RESPONSE:

a) Contact voltage remediation cost recovery for street lighting and unmetered scattered loads ("USL") is impractical due to the lack of unique account identification for each of these loads. The cost of effort required to effectively recover the incurred

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

expenses likely exceeds the value of the funds sought for recovery. Contact voltage costs related to BIA problems reflect only THESL's effort to isolate any defective services/areas for safety, with reconnection processed through normal customer connection processes.

b) See answer to EP IR #2a.

c) The question does not specify what "numbers" a breakdown is sought for, or what "types" third-party assets might fall into. As stated at page 4 of the Application, the costs involved in disconnecting third-party assets were minimal.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 6:

Reference(s): Application Page 8

> Nevertheless, as discussed below under Cost Allocation, THESL proposes that costs be recovered in a manner that results in an outcome substantially similar to that which likely would have prevailed if it had have been possible to discretely record and cost each individual piece of remediation work.

a) Explain in more detail why the proposed allocation is "substantially similar" to what would have prevailed if THESL had recorded the cost of each site remediation.
b) If there is no basis for cost causation, why should any costs be allocated to the residential class. Explain fully why residential connections are part of the problem.
c) Why is scanning of street level handwells in any way connected to any other loads than end use loads such as streetlighting, USL and BIA assets connected to these points? Please explain fully.
d) Provide a tabulation showing estimated BIA assets/connections, customers and loads by class.

RESPONSE:

a) The quoted passage (which appears at page 9) pertains to the allocation of remediation costs as between Streetlighting and USL. By definition, it is impossible to observe what an exact allocation of remediation costs would have been even if exact records could have been kept, since in any case assignment of joint remediation

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

costs would have been judgemental. THESL simply asserts that the proposed allocation as between USL and Streetlighting (18% and 82%, respectively) is likely similar to the result that would have been obtained otherwise.

b) THESL rejects the premise of the question that "there is no basis for cost causation". Furthermore, no remediation costs are allocated to the residential class.

c) The question mis-characterizes the scanning activity by implying that it is limited to handwells. It is not. The scanning program assesses all sources of contact voltage at street level and is directed at ensuring the safety of the overall system for the public and employees. A portion of scanning costs are proposed to be allocated to the residential class as one of the group of all classes.

d) The requested data is not available.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

INTERROGATORY 7:

Reference(s): Application, pages 9-10: Exhibits 1, 2a) and 2b)

THESL proposes that of the total $14.35 million of costs for which recovery is being sought, $6.56 million of scanning costs be allocated to all classes on the basis that they were incurred to ensure the safety of the entire distribution system, while the remaining$7.79 million related to the remediation of existing contact voltages and inspection and remediation of handwells be recovered from the Streetlighting and USL classes only.

a) Please provide revised Exhibits 1, 2a and 2b on the basis of recovery of all costs from the Streetlighting and USL classes.
b) Provide revised Exhibits1, 2a and 2b on the basis of recovery of all costs except ongoing scanning ($2.4 million) from streetlighting and USL classes.
c) Based on the response VECC IR 6 d) provide revised Exhibits1, 2a and 2b on the basis of recovery of all costs except ongoing scanning, from streetlighting USL classes and Classes with BIA connections/loads. ~~If there is no basis for cost causation, why should any costs be allocated to the residential class. Explain fully why residential connections are part of the problem.~~ [same as VECC IR # 6b]

RESPONSE:

a) See Appendix A.

b) See Appendix B.

RESPONSES TO VULNERABLE ENERGY CONSUMERS COALITION INTERROGATORIES

c) Please refer to responses to VECC IR #6c and 6d.

Exhitbit 1 - Derivation of Rate Riders

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USE	UNMETERED SCATTER LOAD	STREETLIGHT	TOTAL
2											
3	**2009 Approved Load by Rate Class**										
4	**Number of Customers**			611,808	66,191	11,719	530	49	1,135	1	**691,433**
5	**Number of Connection**								19,907	162,450	**182,357**
6	**2009 - Cost of Service Allocation - Secondary Customer Base**			611,808	66,191	2,803	12	0	19,907	90,026	**790,747**
7											
8	**Allocators Percentages**										
9	**2009 - Cost of Service Allocation - Secondary Customer Base (%**			77.37%	8.37%	0.35%	0.00%	0.00%	2.52%	11.38%	**100%**
10	**Connections Allocation**								18.11%	81.89%	**100%**
11			**ALLOCATOR**	**RESIDENTIAL**	**GS < 50 kW**	**GS - 50 to 1000 kW**	**GS > 1000 to 5000 kW**	**LARGE USER**	**SMALL SCATTER LOAD**	**STREETLIGHT**	**TOTAL**
12	**Scanning**	$6,555,000	**Connections Allocation**	$0	$0	-	$0	$0	$1,187,004	$5,367,996	**$6,555,000**
13	**Remediation**	$7,790,000	**Connections Allocation**	$0	$0	-	$0	$0	$1,410,642	$6,379,358	**$7,790,000**
14	**Total Recovery**	**$14,345,000**		**$0**	**$0**	**-**	**$0**	**$0**	**$2,597,646**	**$11,747,354**	**$14,345,000**

15	***2010 - Rate Riders***	**RECOVERY AMOUNT**	**ALLOCATOR**	**RESIDENTIAL**	**GS < 50 kW**	**GS - 50 to 1000 kW**	**GS > 1000 to 5000 kW**	**LARGE USER**	**SMALL SCATTER LOAD**	**STREETLIGHT**	
16	**Scanning**	**$2,185,000**	**Connections Allocation**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.63**	**$ 0.91**	
17	**Remediation**	**$2,596,667**	**Connections Allocation**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.94**	**$ 1.08**	
18	**Total Contact Voltage Rider**	**$4,781,667**		**$0**	**$0**	**$0**	**$0**	**$0**	**$4**	**$2**	
19	***2011 - Rate Riders***	**RECOVERY AMOUNT**	**ALLOCATOR**	**RESIDENTIAL**	**GS < 50 kW**	**GS - 50 to 1000 kW**	**GS > 1000 to 5000 kW**	**LARGE USER**	**SMALL SCATTER LOAD**	**STREETLIGHT**	
20	**Scanning**	**$2,185,000**	**Connections Allocation**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.63**	**$ 0.91**	
21	**Remediation**	**$2,596,667**	**Connections Allocation**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.94**	**$ 1.08**	
22	**Total Contact Voltage Rider**	**$4,781,667**		**$0**	**$0**	**$0**	**$0**	**$0**	**$4**	**$2**	
23	***2012 - Rate Riders***	**RECOVERY AMOUNT**	**ALLOCATOR**	**RESIDENTIAL**	**GS < 50 kW**	**GS - 50 to 1000 kW**	**GS > 1000 to 5000 kW**	**LARGE USER**	**SMALL SCATTER LOAD**	**STREETLIGHT**	
24	**Scanning**	**$2,185,000**	**Secondary Customer Base**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.63**	**$ 0.91**	
25	**Remediation**	**$2,596,667**	**Connections Allocation**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1.94**	**$ 1.08**	
26	**Total Contact Voltage Rider**	**$4,781,667**		**$0**	**$0**	**$0**	**$0**	**$0**	**$4**	**$2**	

Exhibit 2a: 2009 Distribution and Rate Rider Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				2009 Rates			2009 Rates with CV Rate Riders			2009 Increase	
2	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Total ($)	Distribution ($)	Rate Rider ($)	Total ($)	$	%
3	**Residential**										
4	100			18.29	0.57	18.86	18.29	0.57	18.86	**0.00**	**0.0%**
5	250			20.45	0.45	20.90	20.45	0.45	20.90	**0.00**	**0.0%**
6	500			24.04	0.25	24.29	24.04	0.25	24.29	**0.00**	**0.0%**
7	750			27.64	0.05	27.69	27.64	0.05	27.69	**0.00**	**0.0%**
8	1,000			31.23	-0.15	31.08	31.23	-0.15	31.08	**0.00**	**0.0%**
9	1,500			38.42	-0.55	37.87	38.42	-0.55	37.87	**0.00**	**0.0%**
10	2,000			45.61	-0.95	44.66	45.61	-0.95	44.66	**0.00**	**0.0%**
11	**GS<50 kW**										
12	1,000			41.23	0.24	41.47	41.23	0.24	41.47	**0.00**	**0.0%**
13	5,000			120.39	-1.36	119.03	120.39	-1.36	119.03	**0.00**	**0.0%**
14	10,000			219.34	-3.36	215.98	219.34	-3.36	215.98	**0.00**	**0.0%**
15	20,000			417.24	-7.36	409.88	417.24	-7.36	409.88	**0.00**	**0.0%**
16	**GS 50-999 kW**										
17	30,000	100	100	548.61	-4.02	544.59	548.61	-4.02	544.59	**0.00**	**0.0%**
18	40,000	100	100	548.61	-4.02	544.59	548.61	-4.02	544.59	**0.00**	**0.0%**
19	150,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.52	2,874.39	**0.00**	**0.0%**
20	200,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.52	2,874.39	**0.00**	**0.0%**
21	270,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
22	360,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
23	450,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.52	5,147.37	**0.00**	**0.0%**
24	**GS 1000-4999 kW**										
25	300,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
26	400,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
27	500,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.88	5,409.92	**0.00**	**0.0%**
28	600,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
29	800,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
30	1,000,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.43	10,113.81	**0.00**	**0.0%**
31	**Large Use**										
32	1,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
33	2,000,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
34	2,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
35	3,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
36	4,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
37	5,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
38	**Street Lighting**	Connections	Mthly kVA								
39	9,182,014	159,861	26,461	666,540.82	-1,749.04	664,791.78	666,540.82	321,525.71	988,066.54	**323,274.75**	**48.6%**
40	365	1	1	20.70	-0.07	20.64	20.70	1.92	22.63	**1.99**	**9.6%**
	Unmetered										
41	**Scattered Loads**	Customers	Connections								
42	4,829,242	1,466	17,721	213,223.27	-8,161.42	205,061.85	213,223.27	55,102.55	268,325.82	**63,263.97**	**30.9%**
43	365	1	1	19.04	-0.62	18.42	19.04	2.95	21.99	**3.57**	**19.4%**

Exhibit 2b: 2009 Total Bill Impact

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
				2009				2009 with CV Rate Riders				2009 Increase	
	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	$	%
Residential													
	100			18.29	0.57	7.90	26.76	18.29	0.57	7.90	26.76	**0.00**	**0.0%**
	250			20.45	0.45	19.38	40.27	20.45	0.45	19.38	40.27	**0.00**	**0.0%**
	500			24.04	0.25	38.51	62.80	24.04	0.25	38.51	62.80	**0.00**	**0.0%**
	750			27.64	0.05	57.64	85.32	27.64	0.05	57.64	85.32	**0.00**	**0.0%**
	1,000			31.23	-0.15	78.91	109.99	31.23	-0.15	78.91	109.99	**0.00**	**0.0%**
	1,500			38.42	-0.55	121.84	159.71	38.42	-0.55	121.84	159.71	**0.00**	**0.0%**
	2,000			45.61	-0.95	164.77	209.43	45.61	-0.95	164.77	209.43	**0.00**	**0.0%**
GS<50 kW													
	1,000			41.23	0.24	78.84	120.31	41.23	0.24	78.84	120.31	**0.00**	**0.0%**
	5,000			120.39	-1.36	420.19	539.22	120.39	-1.36	420.19	539.22	**0.00**	**0.0%**
	10,000			219.34	-3.36	846.89	1,062.87	219.34	-3.36	846.89	1,062.87	**0.00**	**0.0%**
	20,000			417.24	-7.36	1,700.28	2,110.16	417.24	-7.36	1,700.28	2,110.16	**0.00**	**0.0%**
GS 50-999 kW													
	30,000	100	100	548.61	-4.02	2,597.38	3,141.97	548.61	-4.02	2,597.38	3,141.97	**0.00**	**0.0%**
	40,000	100	100	548.61	-4.02	3,347.01	3,891.60	548.61	-4.02	3,347.01	3,891.60	**0.00**	**0.0%**
	150,000	500	556	2,898.91	-24.52	13,012.92	15,887.31	2,898.91	-24.52	13,012.92	15,887.31	**0.00**	**0.0%**
	200,000	500	556	2,898.91	-24.52	16,761.06	19,635.45	2,898.91	-24.52	16,761.06	19,635.45	**0.00**	**0.0%**
	270,000	900	1,000	5,191.89	-44.52	23,428.46	28,575.83	5,191.89	-44.52	23,428.46	28,575.83	**0.00**	**0.0%**
	360,000	900	1,000	5,191.89	-44.52	30,175.11	35,322.48	5,191.89	-44.52	30,175.11	35,322.48	**0.00**	**0.0%**
	450,000	900	1,000	5,191.89	-44.52	36,921.76	42,069.13	5,191.89	-44.52	36,921.76	42,069.13	**0.00**	**0.0%**
GS 1000-4999 kW													
	300,000	1,000	1,111	5,516.79	-106.88	26,402.34	31,812.26	5,516.79	-106.88	26,402.34	31,812.26	**0.00**	**0.0%**
	400,000	1,000	1,111	5,516.79	-106.88	33,898.62	39,308.54	5,516.79	-106.88	33,898.62	39,308.54	**0.00**	**0.0%**
	500,000	1,000	1,111	5,516.79	-106.88	41,394.90	46,804.82	5,516.79	-106.88	41,394.90	46,804.82	**0.00**	**0.0%**
	600,000	2,000	2,222	10,328.24	-214.43	52,811.18	62,924.99	10,328.24	-214.43	52,811.18	62,924.99	**0.00**	**0.0%**
	800,000	2,000	2,222	10,328.24	-214.43	67,803.74	77,917.55	10,328.24	-214.43	67,803.74	77,917.55	**0.00**	**0.0%**
	1,000,000	2,000	2,222	10,328.24	-214.43	82,796.30	92,910.11	10,328.24	-214.43	82,796.30	92,910.11	**0.00**	**0.0%**
Large Use													
	1,500,000	5,000	5,556	24,535.15	-548.76	130,580.78	154,567.16	24,535.15	-548.76	130,580.78	154,567.16	**0.00**	**0.0%**
	2,000,000	5,000	5,556	24,535.15	-548.76	167,443.20	191,429.59	24,535.15	-548.76	167,443.20	191,429.59	**0.00**	**0.0%**
	2,500,000	5,000	5,556	24,535.15	-548.76	204,305.63	228,292.01	24,535.15	-548.76	204,305.63	228,292.01	**0.00**	**0.0%**
	3,000,000	10,000	11,111	46,431.26	-1,098.21	261,168.05	306,501.10	46,431.26	-1,098.21	261,168.05	306,501.10	**0.00**	**0.0%**
	4,000,000	10,000	11,111	46,431.26	-1,098.21	334,892.90	380,225.95	46,431.26	-1,098.21	334,892.90	380,225.95	**0.00**	**0.0%**
	5,000,000	10,000	11,111	46,431.26	-1,098.21	408,617.75	453,950.80	46,431.26	-1,098.21	408,617.75	453,950.80	**0.00**	**0.0%**
Street Lighting		Connections	Mthly kVA										
	9,182,014	159,861	26,461	666,540.82	-1,749.04	810,021.26	1,474,813.04	666,540.82	321,525.71	810,021.26	1,798,087.80	**323,274.75**	**21.9%**
	365	1	1	20.70	-0.07	28.80	49.44	20.70	1.92	28.80	51.43	**1.99**	**4.0%**
Unmetered Scattered Loads		Customers	Connections										
	4,829,242	1,466	17,721	213,223.27	-8,161.42	396,581.69	601,643.54	213,223.27	55,102.55	396,581.69	664,907.51	**63,263.97**	**10.5%**
	365	1	1	19.04	-0.62	26.82	45.24	19.04	2.95	26.82	48.81	**3.57**	**7.9%**

Exhitbit 1 - Derivation of Rate Riders

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USE	UNMETERED SCATTER LOAD	STREETLIGHT	TOTAL
2				A	B		E	F		G	H
3	**2009 Approved Load by Rate Class**										
4	Number of Customers			611,808	66,191	11,719	530	49	1,135	1	**691,433**
5	Number of Connection								19,907	162,450	**182,357**
6	2009 - Cost of Service Allocation - Secondary Customer Base			611,808	66,191	2,803	12	0	19,907	90,026	**790,747**
7											
8	**Allocators Percentages**										
9	2009 - Cost of Service Allocation - Secondary Customer Base (%			77.37%	8.37%	0.35%	0.00%	0.00%	2.52%	11.38%	**100%**
10	Connections Allocation								18.11%	81.89%	**100%**
11			ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT	TOTAL
12	On going Scanning	$2,410,000	Secondary Customer Base	$1,864,640	$201,733	8,542	$37	$1	$60,672	$274,376	**$2,410,000**
13	Scanning/Remediation	$11,935,000	Connections Allocation	$0	$0	-	$0	$0	$2,161,235	$9,773,765	**$11,935,000**
14	**Total Recovery**	**$14,345,000**		**$1,864,640**	**$201,733**	**8,542**	**$37**	**$1**	**$2,221,906**	**$10,048,141**	**$14,345,000**

		RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
15	***2010 - Rate Riders***									
16	On going Scanning	$2,410,000	Secondary Customer Base	$ 0.25	$ 0.25	$ 0.06	$ 0.01	$ -	$ 0.25	$ 0.14
17	Scanning/Remediation	$3,978,333	Connections Allocation	$ -	$ -	$ -	$ -	$ -	$ 2.97	$ 1.65
18	**Total Contact Voltage Rider**	**$6,388,333**		**$0**	**$0**	**$0**	**$0**	**$0**	**$3**	**$2**
19	***2011 - Rate Riders***	RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
20	On going Scanning	$0	Secondary Customer Base	$ -	$ -	$ -	$ -	$ -	$ -	$ -
21	Scanning/Remediation	$3,978,333	Connections Allocation	$ -	$ -	$ -	$ -	$ -	$ 2.97	$ 1.65
22	**Total Contact Voltage Rider**	**$3,978,333**		**$0**	**$0**	**$0**	**$0**	**$0**	**$3**	**$2**
23	***2012- Rate Riders***	RECOVERY AMOUNT	ALLOCATOR	RESIDENTIAL	GS < 50 kW	GS - 50 to 1000 kW	GS > 1000 to 5000 kW	LARGE USER	SMALL SCATTER LOAD	STREETLIGHT
24	On going Scanning	$0	Secondary Customer Base	$ -	$ -	$ -	$ -	$ -	$ -	$ -
25	Scanning/Remediation	$3,978,333	Connections Allocation	$ -	$ -	$ -	$ -	$ -	$ 2.97	$ 1.65
26	**Total Contact Voltage Rider**	**$3,978,333**		**$0**	**$0**	**$0**	**$0**	**$0**	**$3**	**$2**

Exhibit 2a: 2009 Distribution and Rate Rider Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11
1				2009 Rates			2009 Rates with CV Rate Riders			2009 Increase	
2	kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Total ($)	Distribution ($)	Rate Rider ($)	Total ($)	$	%
3	**Residential**										
4	100			18.29	0.57	18.86	18.29	0.82	19.11	**0.25**	**1.3%**
5	250			20.45	0.45	20.90	20.45	0.70	21.15	**0.25**	**1.2%**
6	500			24.04	0.25	24.29	24.04	0.50	24.54	**0.25**	**1.0%**
7	750			27.64	0.05	27.69	27.64	0.30	27.94	**0.25**	**0.9%**
8	1,000			31.23	-0.15	31.08	31.23	0.10	31.33	**0.25**	**0.8%**
9	1,500			38.42	-0.55	37.87	38.42	-0.30	38.12	**0.25**	**0.7%**
10	2,000			45.61	-0.95	44.66	45.61	-0.70	44.91	**0.25**	**0.6%**
11	**GS<50 kW**										
12	1,000			41.23	0.24	41.47	41.23	0.49	41.72	**0.25**	**0.6%**
13	5,000			120.39	-1.36	119.03	120.39	-1.11	119.28	**0.25**	**0.2%**
14	10,000			219.34	-3.36	215.98	219.34	-3.11	216.23	**0.25**	**0.1%**
15	20,000			417.24	-7.36	409.88	417.24	-7.11	410.13	**0.25**	**0.1%**
16	**GS 50-999 kW**										
17	30,000	100	100	548.61	-4.02	544.59	548.61	-3.96	544.65	**0.06**	**0.0%**
18	40,000	100	100	548.61	-4.02	544.59	548.61	-3.96	544.65	**0.06**	**0.0%**
19	150,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.46	2,874.45	**0.06**	**0.0%**
20	200,000	500	556	2,898.91	-24.52	2,874.39	2,898.91	-24.46	2,874.45	**0.06**	**0.0%**
21	270,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.46	5,147.43	**0.06**	**0.0%**
22	360,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.46	5,147.43	**0.06**	**0.0%**
23	450,000	900	1,000	5,191.89	-44.52	5,147.37	5,191.89	-44.46	5,147.43	**0.06**	**0.0%**
24	**GS 1000-4999 kW**										
25	300,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.87	5,409.93	**0.01**	**0.0%**
26	400,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.87	5,409.93	**0.01**	**0.0%**
27	500,000	1,000	1,111	5,516.79	-106.88	5,409.92	5,516.79	-106.87	5,409.93	**0.01**	**0.0%**
28	600,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.42	10,113.82	**0.01**	**0.0%**
29	800,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.42	10,113.82	**0.01**	**0.0%**
30	1,000,000	2,000	2,222	10,328.24	-214.43	10,113.81	10,328.24	-214.42	10,113.82	**0.01**	**0.0%**
31	**Large Use**										
32	1,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
33	2,000,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
34	2,500,000	5,000	5,556	24,535.15	-548.76	23,986.39	24,535.15	-548.76	23,986.39	**0.00**	**0.0%**
35	3,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
36	4,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
37	5,000,000	10,000	11,111	46,431.26	-1,098.21	45,333.05	46,431.26	-1,098.21	45,333.05	**0.00**	**0.0%**
38	**Street Lighting**	Connections	Mthly kVA								
39	9,182,014	159,861	26,461	666,540.82	-1,749.04	664,791.78	666,540.82	289,035.79	955,576.61	**290,784.83**	**43.7%**
40	365	1	1	20.70	-0.07	20.64	20.70	1.72	22.43	**1.79**	**8.7%**
	Unmetered										
41	**Scattered Loads**	Customers	Connections								
42	4,829,242	1,466	17,721	213,223.27	-8,161.42	205,061.85	213,223.27	48,900.20	262,123.47	**57,061.62**	**27.8%**
43	365	1	1	19.04	-0.62	18.42	19.04	2.60	21.64	**3.22**	**17.5%**

Exhibit 2b: 2009 Total Bill Impact

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13	Col. 14
1					2009				2009 with CV Rate Riders				2009 Increase	
2		kWh	kW	kVA	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	Distribution ($)	Rate Rider ($)	Non-Distribution ($)	Total ($)	$	%
3	**Residential**													
4		100			18.29	0.57	7.90	26.76	18.29	0.82	7.90	27.01	**0.25**	**0.9%**
5		250			20.45	0.45	19.38	40.27	20.45	0.70	19.38	40.52	**0.25**	**0.6%**
6		500			24.04	0.25	38.51	62.80	24.04	0.50	38.51	63.05	**0.25**	**0.4%**
7		750			27.64	0.05	57.64	85.32	27.64	0.30	57.64	85.57	**0.25**	**0.3%**
8		1,000			31.23	-0.15	78.91	109.99	31.23	0.10	78.91	110.24	**0.25**	**0.2%**
9		1,500			38.42	-0.55	121.84	159.71	38.42	-0.30	121.84	159.96	**0.25**	**0.2%**
10		2,000			45.61	-0.95	164.77	209.43	45.61	-0.70	164.77	209.68	**0.25**	**0.1%**
11	**GS<50 kW**													
12		1,000			41.23	0.24	78.84	120.31	41.23	0.49	78.84	120.56	**0.25**	**0.2%**
13		5,000			120.39	-1.36	420.19	539.22	120.39	-1.11	420.19	539.47	**0.25**	**0.0%**
14		10,000			219.34	-3.36	846.89	1,062.87	219.34	-3.11	846.89	1,063.12	**0.25**	**0.0%**
15		20,000			417.24	-7.36	1,700.28	2,110.16	417.24	-7.11	1,700.28	2,110.41	**0.25**	**0.0%**
16	**GS 50-999 kW**													
17		30,000	100	100	548.61	-4.02	2,597.38	3,141.97	548.61	-3.96	2,597.38	3,142.03	**0.06**	**0.0%**
18		40,000	100	100	548.61	-4.02	3,347.01	3,891.60	548.61	-3.96	3,347.01	3,891.66	**0.06**	**0.0%**
19		150,000	500	556	2,898.91	-24.52	13,012.92	15,887.31	2,898.91	-24.46	13,012.92	15,887.37	**0.06**	**0.0%**
20		200,000	500	556	2,898.91	-24.52	16,761.06	19,635.45	2,898.91	-24.46	16,761.06	19,635.51	**0.06**	**0.0%**
21		270,000	900	1,000	5,191.89	-44.52	23,428.46	28,575.83	5,191.89	-44.46	23,428.46	28,575.89	**0.06**	**0.0%**
22		360,000	900	1,000	5,191.89	-44.52	30,175.11	35,322.48	5,191.89	-44.46	30,175.11	35,322.54	**0.06**	**0.0%**
23		450,000	900	1,000	5,191.89	-44.52	36,921.76	42,069.13	5,191.89	-44.46	36,921.76	42,069.19	**0.06**	**0.0%**
24	**GS 1000-4999 kW**													
25		300,000	1,000	1,111	5,516.79	-106.88	26,402.34	31,812.26	5,516.79	-106.87	26,402.34	31,812.27	**0.01**	**0.0%**
26		400,000	1,000	1,111	5,516.79	-106.88	33,898.62	39,308.54	5,516.79	-106.87	33,898.62	39,308.55	**0.01**	**0.0%**
27		500,000	1,000	1,111	5,516.79	-106.88	41,394.90	46,804.82	5,516.79	-106.87	41,394.90	46,804.83	**0.01**	**0.0%**
28		600,000	2,000	2,222	10,328.24	-214.43	52,811.18	62,924.99	10,328.24	-214.42	52,811.18	62,925.00	**0.01**	**0.0%**
29		800,000	2,000	2,222	10,328.24	-214.43	67,803.74	77,917.55	10,328.24	-214.42	67,803.74	77,917.56	**0.01**	**0.0%**
30		1,000,000	2,000	2,222	10,328.24	-214.43	82,796.30	92,910.11	10,328.24	-214.42	82,796.30	92,910.12	**0.01**	**0.0%**
31	**Large Use**													
32		1,500,000	5,000	5,556	24,535.15	-548.76	130,580.78	154,567.16	24,535.15	-548.76	130,580.78	154,567.16	**0.00**	**0.0%**
33		2,000,000	5,000	5,556	24,535.15	-548.76	167,443.20	191,429.59	24,535.15	-548.76	167,443.20	191,429.59	**0.00**	**0.0%**
34		2,500,000	5,000	5,556	24,535.15	-548.76	204,305.63	228,292.01	24,535.15	-548.76	204,305.63	228,292.01	**0.00**	**0.0%**
35		3,000,000	10,000	11,111	46,431.26	-1,098.21	261,168.05	306,501.10	46,431.26	-1,098.21	261,168.05	306,501.10	**0.00**	**0.0%**
36		4,000,000	10,000	11,111	46,431.26	-1,098.21	334,892.90	380,225.95	46,431.26	-1,098.21	334,892.90	380,225.95	**0.00**	**0.0%**
37		5,000,000	10,000	11,111	46,431.26	-1,098.21	408,617.75	453,950.80	46,431.26	-1,098.21	408,617.75	453,950.80	**0.00**	**0.0%**
38	**Street Lighting**		Connections	Mthly kVA										
39		9,182,014	159,861	26,461	666,540.82	-1,749.04	810,021.26	1,474,813.04	666,540.82	289,035.79	810,021.26	1,765,597.87	**290,784.83**	**19.7%**
40		365	1	1	20.70	-0.07	28.80	49.44	20.70	1.72	28.80	51.23	**1.79**	**3.6%**
41	**Unmetered Scattered Loads**		Customers	Connections										
42		4,829,242	1,466	17,721	213,223.27	-8,161.42	396,581.69	601,643.54	213,223.27	48,900.20	396,581.69	658,705.16	**57,061.62**	**9.5%**
43		365	1	1	19.04	-0.62	26.82	45.24	19.04	2.60	26.82	48.46	**3.22**	**7.1%**

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 1:

Reference(s): page 2

Considered together, the events outlined above indicated the possibility of systemic faults in underground equipment, which, if present, would pose an unacceptable risk to the public and to employees of THESL and THESI. The possible hazard to the public was heightened by the presence of road salt that when mixed with water, combined to form a highly conductive solution on sidewalks and thoroughfares throughout the city. Executive management of THESL therefore concluded that an emergency condition existed which demanded immediate and intensive efforts to correct. THESL declared a Level III emergency, the second highest level of system emergency, on January 30, 2009.

a) Given the above-noted "unacceptable risk" posed to employees and the public, please outline the nature and cost of any additional Occupational Health and Safety training or other additional safety measures that have been implemented in the context of the Level III emergency.
b) In addition, we require the same information in respect of any such programming, including anticipated costs, that will be implemented on a go-forward basis in response to the Level III emergency.
c) In respect of this interrogatory, please provide a detailed breakdown of these costs according to the following categories of workers:
    - Bargaining unit employees (for both inside and outside workers);
    - Non-bargaining unit employees;
    - Managerial employees; and,
    - Sub-contractors.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

d) In addition, given the high-risk circumstances described, we wish to know whether THESL or THESI employees or contracted workers participated in any work refusals under the Occupational Health and Safety Act during the material time, and please provide the estimated cost implications of any such instances.

RESPONSE:

a) THESL crews are fully capable and trained to work on the secondary distribution equipment under the conditions experienced during the contact voltage Level III emergency. No additional training was required.

b) Please refer to the answer above. Cost levels in future years are not the subject of this Application.

c) The requested information is not available.

d) There were no work refusals requiring Ministry of Labour involvement.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 2:

Reference(s): pages 2-3

The Applicant has reproduced the following communication from Anthony Haines, President of THESL, to the Toronto Hydro Board of Directors. The following paragraphs are excerpted from Mr. Haines' letter:

> … Toronto Hydro has therefore suspended all other non-emergency planned work on its system and has deployed its own utility and streetlighting crews, as well as available contractor resources, on a 7 day per week, 24 hour per day basis to locate, diagnose, secure, and repair to a safe condition all the suspect equipment on its distribution and streetlighting systems. In order to accomplish this substantial work program as quickly and effectively as possible, all the involved resources will be directed by senior management of the distribution utility. While Toronto Hydro will make every effort to capture and record all relevant information on the equipment itself and the directly associated expenditures, it will not be possible under the conditions to segregate the crews and assets of the streetlighting affiliate from those of the distribution utility. For any location determined to require repair, the first available crew will be dispatched regardless of the precise nature of the electrical fault or of crew personnel composition.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

a) Describe the extent to which THESL relied on the above-noted "available contractor resources" in undertaking the Level III program.

b) In addition, explain in detail the extent to which such reliance on contracted labour deviated from usual utility management practices. More narrowly, describe the nature of all analyses undertaken by THESL management in identifying and assigning any to such contracted resources in context of the Level III emergency.

In the same letter, [Mr.] Haines also stated:

> It is clear that this work program will be disruptive, to varying degrees, of Toronto Hydro's normal business and planned activities. We expect that there may be additional operating and cost consequences and we intend to manage these diligently to minimize any adverse impacts. Please also be assured that Toronto Hydro will do our utmost to maintain our standard of response to outages and any other safety matters which present in the normal course of business.

c) Identify any "additional operating or cost consequences" arising from the Level III situation which have not been identified within the instant Application. More specifically, provide detailed information, including, but not limited to cost implications, pertaining to any such operating consequences in relation to the following non-exhaustive list:

- Previous and anticipated sale or divestment of assets;

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

- Hiring of employees, and maintenance of employee complement, both inside andoutside of the bargaining unit;
- Any new plans, or variation to existing plans, with respect to the hiring or subcontractual staffing of additional trades persons;
- Procurement of equipment, including, but not limited to safety equipment;
- Tendering and/or Contracting for delivery of services by third-parties, including, but not limited to sub-contracting entities
- Reorganization of internal management and decision-making structures
- Development of new internal policies and/or procedures, including any revision to existing policies and/or procedures; including, but not limited to human resources, staffing, procurement, risk assessments, safety, and environmental policies.

[Mr.] Haines also stated:

> Our concern for worker and public safety is paramount and guides our decisions around this challenge. I commit to maintaining heightened communication with the Board on this matter until its resolution and invite you to contact me directly should you have questions or concerns.

d) Provide specific details of the manner in which workers' safety has been accounted for by THESL management, including any cost-related analyses, in light of the stated importance of expeditious and efficient emergency response.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

RESPONSE:

a) In financial terms THESL expended approximately $670,000 on electrical contractor resources to augment our internal staff in this response. Internal staff account for $5.52M in expended effort. This translates to about 12.1% of the total effort applied to this level III emergency response.

b) THESL's continued reliance on contractors during the Level III emergency response was consistent with normal operating practices. In the course of normal operations THESL regularly retains contractors to provide value-added services such as forestry, civil construction, complete maintenance of switching cubicles, thermographic line audits, pumping and washing of underground structures, and grounds maintenance at all THESL properties.

c) The requested information is not pertinent to this Application and in any event is not available.

d) The THESL Health & Safety Policy and all work practices and procedure govern all work performed by staff at all times, including emergency conditions.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 3:

Reference(s): page 4

The Applicant stated:

> Remediation was carried out by THESL crews, THESI crews, and crews from available electrical contractors, all working under the direction of THESL management. Remediation work was itself undertaken in two categories; response to identified contact voltage incidents, and systematic inspection and repair, as necessary, of all handwells.

a) Provide a detailed breakdown of remedial work distribution referenced in this paragraph, including the nature and timing of work, and associated cost implications as among "the THESL crews, THESI crews, and crews from available electrical contractors". Additionally please list the particular contractors referenced and enumerate the relative expenditures with respect to each.

b) Provide a relative costing of remediation work that was performed by contracted labour in comparison with reference to the cost of the same work, had it been performed by the Applicant's employees. Include, along with any cost rationale, an explanation of other factors considered by management, to the extent that such factors rationalized or influenced the distribution of such work from the declaration of Level III status to the present date.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

RESPONSE:

a) The requested breakdown is not available beyond the information already provided in the Application.

b) The data captured during this Level III emergency response does not include the completed maintenance activities unique to locations; hence a specific breakdown of this work, by resource type and location is not available. This work was completed during the period between January 30, 2009 and February 23, 2009.

Inspection and repair work was performed by both THESL staff and resources provided by our contractor partners Powerline Plus and Entera Utility Contractors. THESL staff resources inspected / serviced 61,331 asset locations. Resources from Powerline Plus inspected / serviced 1,583 asset locations. Resources from Entera Utility Contractors inspected/serviced 2,585 asset locations. These contractors were engaged in the work from February 8-20, 2009.

The THESL contractors were compensated accordingly:

- Powerline Plus – $335,840
- Entera Utility Contractors – $319,444

It should be noted that the nature of the work assigned to THESL versus contractors resources varied significantly and thus did not permit a meaningful comparison of costs. The primary focus of this initiative was strictly to respond to public safety concerns.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 4:

Reference(s): page 5

With respect to total costs incurred, the Applicant states:

> In total, the expensed cost incurred by THESL for the Level III emergency was $11.94 million. A breakdown of these expenditures is given in Table 1. A further amount of $2.41 million will be expended through the balance of 2009 for the maintenance of the scanning program on a nonemergency basis in order to ensure that further instances of contact voltage are minimized.

Further, also on p. 5, "Table 1" refers to broad categories for costs incurred during the Level III emergency, including:

- "Labour" (overtime and non-overtime);
- "Non-Labour" (electrical contractor cost; scanning contractor cost; inventory and materials; other);
- "Continued Scanning Expenditures."

Provide a definitive explanation of what the Applicant includes within each of the broad incurred costs categories presented in "Table 1".

RESPONSE:

Please refer to the response to VECC IR # 2a.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 5:

Reference(s): page 6

THESL states the following:

> With respect to regular labour and other miscellaneous internal costs charged to the Level III emergency project, THESL submits that these are properly considered incremental to the approved revenue requirement because THESL is committed to achieving its planned and approved levels of operations and maintenance and capital work in 2009 and will therefore at least exhaust its approved revenue requirement in this category. In fact, it is highly likely that THESL will have to incur unbudgeted overtime and contractor costs in order meet this commitment; in any case though, given THESL's commitment to meet planned O&M and capital work, the diversion of the resources that would otherwise have been devoted to that work should be treated as incremental. In the case of overtime labour, this would not have been incurred at the level experienced in February 2009 but for this event.

To the extent that unbudgeted overtime and contractor costs were unforeseen and are novel for THESL's system, advise as to any potential implications with respect to O&M and capital work.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

RESPONSE:

THESL's capital and O&M programmes are scheduled for completion as originally budgeted. For this reason, the expenditure of labour during the level III emergency event caused a deficit in available labour to complete originally budgeted programmes, resulting in the requirements for both overtime and the engagement of external vendors to resolve this labour deficit.

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

INTERROGATORY 6:

Reference(s): page 8

With respect to its position that its response in respect of the relevant costs was prudent, the Applicant states:

> … it was necessary to suspend non-emergency planned work for the duration of the Level III project and consequently connections and other normal jobs were not being completed during this period. From the perspective of regular customer service it was vital to minimize the period of disruption to normal operations. For these reasons THESL submits that it was prudent in the circumstances for it to hire the services of a contact voltage scanning contractor. The firm engaged by THESL to do this work was selected because of its competence to undertake the work and its immediate availability. It followed from the urgency of the situation that overtime up to safe limits, and the engagement of available contractors outside of THESL, be undertaken to correct any detected instance of contact voltage as soon as possible.…
>
> … the urgency of the situation demanded the use of available contractors and overtime up to safe levels in order to complete the necessary remediation as soon as possible and resume normal operations.

a) Describe the process by which THESL management arrived at its decision in contracting with service providers for both the ongoing scanning project, and in respect of any other contract that may be referenced, but not specified, within the above-excerpted paragraphs, or elsewhere within the Application.

b) Indicate the Applicant's intentions and/or plans, if any, for future hiring and/or

RESPONSES TO CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL ONE INTERROGATORIES

staffing strategies to address and remedy its apparent labour shortage.

RESPONSE:

a) THESL engaged two civil unit price vendors currently under contract to supply resources to augment the THESI/THESL resource complement with the task of systematic inspection and repair. This decision complies with the THESL procurement policy and was the most expedient manner to mobilise supplementary resources for this public safety initiative. These vendors are Entera Utility Contractors and Powerline Plus. Both of these vendors have, or were able to readily obtain competent trades resources to perform the required tasks.

The engagement of the Power Survey Company ("PSC") was also decided promptly in the interest of public safety to rapidly identify and eliminate contact voltage hazards. PSC is the most experienced firm in this emerging field and was able to mobilise in Toronto within hours of engagement. The technology employed by PSC is their own proprietary design. PSC was engaged by means of a sole-source agreement as defined in the THESL procurement policy.

b) The requested THESL staffing plan is beyond the scope of this Application.