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February 5, 2009

Delivered by Courier

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

Attention: Kirsten Walli
Board Secretary

Re: North Bay Hydro Distribution Limited (EB-2009-270)
2010 Electricity Distribution Rate (Cost of Service) Application
Responses to 1st Round Interrogatories

Dear Ms. Walli:

Please find attached a complete copy of the Vulnerable Energy Consumers Coalition's first round of interrogatory responses. This submission should replace the one that was filed on January 19, 2010.

The following questions have been updated with responses:

Question # 30	page # 41 ~ Appendices "C" and "D"
Question # 31	page # 45
Question # 32	page # 48
Question # 33	page # 50 ~ Appendices "E", "F" and "G"
Question # 34	page # 54
Question # 35	page # 55

In accordance with Procedural Order No. 1, two hard copies of this submission will be sent via courier. An electronic copy of the response in PDF format will be

submitted through the Ontario Energy Board's Regulatory Electronic Submission System.

An electronic copy of the response in PDF format will be forwarded via email to the Intervenor as follows:

Energy Probe

- a) David MacIntosh, Energy Probe
- b) Randy Aiken, Aiken & Associates

Donald Rennick

- a) Donald Rennick, Independent Participants

School Energy Coalition

- a) John De Vellis, Shibley Righton LLP
- b) Wayne McNally, Ontario Education Services Corporation

Vulnerable Energy Consumers Coalition

- a) Michael Buonaguro, Public Interest Advocacy Centre
- b) William Harper, Econalysis Consulting Services Inc.

These responses are respectfully submitted for the Board's review and consideration.

Sincerely,

Original signed by

Cindy Tennant
Finance Manager
North Bay Hydro Distribution Limited
(705) 474-8100 (310)

**NORTH BAY HYDRO DISTRIBUTION LTD.
2010 RATE APPLICATION
EB-2009-0270
VECC'S INTERROGATORIES (ROUND #1)**

GENERAL

Question #1

Reference: Exhibit 1, page 36

- a) Please provide a description of all of North Bay Hydro's supply points and indicates which ones are fully embedded within Hydro One Networks Distribution.

Response:

Appendix "A" provides a simple diagram of the 10 IESO supply points with 3 currently embedded in Hydro One's system. Please note that MS#3T2 is a new supply point for a water treatment plant and ultimately MS#3 will be decommissioned.

- b) How many Hydro One delivery points are embedded in North Bay's distribution system and what rate schedules are currently applied to each?

Response:

As per the second paragraph of page 36, Exhibit #1 Hydro One is embedded in NBHDL's system at 2 points. Hydro One is billed as a General Service >50kw customer at both locations.

Question #2

Reference: Exhibit 1, page 45

- a) To what does North Bay attribute the large increase in call volume in 2009?

Response:

North Bay attributes the large increase in call volume in 2009 to several reasons as listed below:

- 1) NBHDL encountered an increase in calls from customers related to retailer activities in the area
- 2) NBHDL customers saw a significant increase in their January, February and September bills due to the weather and this created an influx of calls
- 3) NBHDL started a process of issuing past due notices to customers which in turn lead to an increase in customer calls concerned as to why they were getting this notification since they were only used to receiving disconnection notices
- 4) The city of North Bay has fairly large student population and in 2009 NBHDL experienced an increase in the number of calls in May and September related to this group of customers for establishing new accounts and closure of old accounts

Question #3

Reference: Appendix 1-H, 2008 Audited Financial Statements

- a) With respect to pages 15 and 25, please provide a copy of the North Bay Hydro Service note. What is the outstanding balance owing as of December 31, 2009 and is any repayment scheduled for 2010?

Response:

A copy of the North Bay Hydro Service note is included as Appendix "B". In December 2008 the Board of Directors of NBHDL consented by unanimous vote to transfer the promissory note to North Bay Hydro Holdings Ltd. therefore there is no outstanding balance owing as of December 31, 2009 and there is no repayment scheduled for 2010. Please refer to the note disclosure on pg. 15 of the financial statements and to Appendix 4-A "Assignment of NBHS note to HOLDCO" of the application.

- b) With respect to page 24, please outline the types of construction activity undertaken by North Bay Hydro for the City in 2009. Are the types of activities performed expected to change for 2010 and, if so, how?

Response:

There was only one type of construction activity undertaken by NBHDL for the City in 2009 and it involved the relocation of our overhead and underground facilities installed within the right-of-way allowances owned by the City of North Bay on the roads that the City was

rebuilding. The types of activities performed are not expected to change in 2010.

RATE BASE

Question #4

Reference: Exhibit 2, page 9

- a) Please provide an update regarding the status of the Pinewood project. Were phases 1-4 converted by December 1, 2009 as planned?

Response:

Phases 1-4 of the Pinewood Project were totally converted by the end of the year. The civil portion of the project, which represented the largest costs, was completed on November 6, 2009. NBHDL work and meter base replacements wrapped up on December 22, 2009.

Question #5

Reference: Exhibit 2, page 16

- a) Please provide a summary of 2007, 2008, 2009 and 2010 capital spending broken down by the same categories as used for the table on page 16.

Response:

	2007	2008	2009	2010
Customer Driven	\$ 1,249,930.61	\$ 2,584,246.71	\$ 1,498,473.96	\$ 1,197,859.22
Rehabilitation/Renewal	\$ 365,915.95	\$ 748,293.07	\$ 878,075.35	\$ 1,269,938.74
Voltage Conversion	\$ 81,650.21	\$ 247,028.61	\$ 2,763,876.58	\$ 2,637,069.47
Capacity	\$ 288,451.06	\$ (572.83)	\$ -	\$ 341,012.58
Reliability	\$ 108,533.66	\$ 229,408.67	\$ -	\$ -
Substation	\$ 92,783.92	\$ 235,266.13	\$ 1,459,806.70	\$ 331,781.90
Customer Connection/Metering	\$ 50,980.07	\$ 72,871.77	\$ 74,658.02	\$ 218,010.48
General Plant	\$ 229,052.46	\$ 962,368.56	\$ 829,557.54	\$ 357,216.66
Total before Special Projects	\$ 2,467,297.94	\$ 5,078,910.69	\$ 7,504,448.16	\$ 6,352,889.04
Special Project - Pinewood			\$ 1,844,239.00	\$ 2,093,821.14
Total	\$ 2,467,297.94	\$ 5,078,910.69	\$ 9,348,687.16	\$ 8,446,710.18

- b) Please confirm that the capital spending set out here is the gross spending, prior to any allowance for capital contributions.

Response:

The capital spending set out in part a) is gross capital spending, prior to any allowance for capital contributions.

- c) With respect to lines 11-12, does the 2010 capital spending include any expenditures for the system improvements, expansion or connection related to renewable generation projects? If so, please identify the expenditures.

Response:

2010 capital spending does not include any expenditures for system improvements, or expansions related directly to renewable generation projects. However, the substantial 2010 investment to our voltage conversion program will help harmonize and strengthen the system, both at the distribution and subtransmission levels, which in turn will allow for easier connection of renewable generation projects. Included in the capital spend is \$40K for connection impact assessments that are required when connecting new generation projects. (Up to 4 studies at \$10K/study)

Question #6

Reference: Exhibit 2, pages 10 and 59

- a) Page 10 states that the cost of smart meters is not included in the revenue requirement. However, page 59 indicates that smart meter spending is part of the capital spending for 2010 that is incorporated into rate base. Please reconcile.

Response:

The smart meter spending referenced on page 59 is in relation to an initiative that NBHDL is undertaking to standardize interval metering for the <50 kW General Service and >50 kW General Service customer classes. As this spending is outside the Provincial requirement for residential roll out of Smart Meters, NBHDL has made the assumption that this spending will not be accounted for in the deferral accounts and should be included in the rate base.

Question #7

Reference: Exhibit 2, pages 15-17

- a) Please provide a schedule that sets out the annual spending (both gross and net contributions) for 2007-2010 on Primary Services, Secondary Services and Subdivisions. Please also indicate the number of new connections for each year associated with each.

Response:

Please refer to Exhibit 2, Tables: 2-14, 2-14A (2010); 2-15, 2-15A (2009); 2-16, 2-16A (2008); and 2-17, 2-17A (2007) for the schedules that set out the annual spending (both gross and net contributions) for 2007 -2010 on Primary Services, Secondary Services, and Subdivisions. The number of new connections for each year associated with each category is as follows:

	2010**	2009	2008	2007
Primary Services	8	8	10	6
Secondary Services	123	126	132	111
Subdivisions*	2	3	2	2

* Reflects the number of new subdivisions not customer connections in new subdivisions

** Forecasted amounts

Question #8

Reference: Exhibit 2, page 144

- a) What is the source of the \$0.06072 / kWh value used for the Cost of Power?

Response:

The \$0.06072 rate used to calculate the cost of power shown in Appendix A is based on the April 15, 2009 Regulated Price Plan Price Report.

- b) Are any of NBHDL's distribution customers are registered as Market Participants and billed directly for commodity costs by the IESO?

Response:

None of NBHDL's distribution customers registered as Market Participants and billed directly for commodity costs by the IESO.

- c) If the response to part (b) is yes, what is their forecast use for 2010 and has it been excluded from the calculation of the commodity cost used to determine the working capital allowance?

Response:

Not applicable. See response to part (b).

- d) Please confirm that a material portion of North Bay's sales are to non-RPP customers (per Exhibit 9, page 16). If the \$0.06072 value used for the commodity cost is based on the RPP price, please undertake the following:
- Using the same source, estimate the commodity cost for non-RPP customers
 - Estimate an average commodity cost for all sales based on the weighted average of the RPP and non-RPP forecast costs.
 - Re-estimate the Total Commodity cost for 2010.

Response:

Approximately 51% of NBHDL's sales are to non-RPP customers and 49% to RPP customers.

Using the Regulated Price Plan Report dated April 15, 2009 the commodity cost for non-RPP customers would be \$0.05914. The estimated commodity cost for non-RPP is as follows:

2010 Load Forecast Data By Class	kWh	2010 Jan - Apr Loss Adjusted	2010 May - Dec Loss Adjusted	Total kWh	Price per kWh	Amount
RESIDENTIAL non RPP	37,911,825	15,675,454	23,915,788	39,591,243	\$ 0.05914	\$ 2,341,426
GENERAL SERVICE <50 kW non RPP	12,285,451	4,665,137	8,168,247	12,833,384	\$ 0.05914	\$ 758,966
GENERAL SERVICE >50 <2999 kW non RPP	191,970,767	73,986,567	126,536,358	200,522,925	\$ 0.05914	\$ 11,858,926
INTERMEDIATE	40,318,944	14,568,713	27,131,848	41,700,561	\$ 0.05914	\$ 2,466,171
SENTINEL LIGHTING non RPP	40,286	13,933	28,163	42,095	\$ 0.05914	\$ 2,490
STREET LIGHTING non RPP	2,737,123	1,020,438	1,838,931	2,859,368	\$ 0.05914	\$ 169,103
Totals	285,264,396	109,930,242	187,619,334	297,549,576		\$ 17,597,082

An estimate of an average commodity cost for all sales based on the weighted average of the RPP and non-RPP forecast costs is \$0.05992.

The re-estimated Total Commodity cost for 2010 is as follows:

2010 Load Forecast Data By Class	kWh	2010 Jan - Apr Loss Adjusted	2010 May - Dec Loss Adjusted	Total kWh	Price per kWh	Amount
RESIDENTIAL RPP	176,279,278	72,886,435	111,201,660	184,088,094	\$ 0.05992	\$ 11,030,741
RESIDENTIAL non RPP	37,911,825	15,675,454	23,915,788	39,591,243	\$ 0.05992	\$ 2,372,346
GENERAL SERVICE <50 kW RPP	72,441,799	27,508,222	48,164,488	75,672,710	\$ 0.05992	\$ 4,534,384
GENERAL SERVICE <50 kW non RPP	12,285,451	4,665,137	8,168,247	12,833,384	\$ 0.05992	\$ 768,989
GENERAL SERVICE >50 <2999 kW RPP	28,939,206	11,153,326	19,075,101	30,228,427	\$ 0.05992	\$ 1,811,317
GENERAL SERVICE >50 <2999 kW non RPP	191,970,767	73,986,567	126,536,358	200,522,925	\$ 0.05992	\$ 12,015,532
INTERMEDIATE	40,318,944	14,568,713	27,131,848	41,700,561	\$ 0.05992	\$ 2,498,739
UNMETERED & SCATTERED LOAD RPP	337,792	122,104	230,809	352,913	\$ 0.05992	\$ 21,147
SENTINEL LIGHTING RPP	476,207	164,691	332,899	497,590	\$ 0.05992	\$ 29,816
SENTINEL LIGHTING non RPP	40,286	13,933	28,163	42,095	\$ 0.05992	\$ 2,522
STREET LIGHTING non RPP	2,737,123	1,020,438	1,838,931	2,859,368	\$ 0.05992	\$ 171,336
Totals	563,738,678	221,765,019	366,624,291	588,389,310		\$ 35,256,871

- e) What is the basis for the Jan – Apr 2010 and May – Dec 2010 transmission rates used in Table 2-23?

Response:

The transmission rates used for Jan – Apr 2010 are the approved rates per NBHDL's Tariff of Rates and Charges effective May 1, 2009.

The May – Dec 2010 transmission rates have been determined in accordance with the July 21, 2009 Revision to Guideline G-2008-0001 – Electricity Distribution Retail Transmission Service Rates issued by the Board. Please refer to Exhibit 8, pages 8 and 9 for detailed methodology.

Question #9

- Reference:** i) Exhibit 2, Appendix 2-A

- a) With respect to page 8, what actions has North Bay taken and/or is planning in response to the recommendations that it undertake a condition asset survey of the old vintage lines and adopt a pole testing program?

Response:

In response to the recommendations that NBHDL undertake a condition asset survey of the old vintage lines, NBHDL is currently investigating a number of alternatives for the next steps with regards to Asset Management (AM). NBHDL has attended a number of AM conferences and are talking to companies that specialize in AM practices, such as Kinectrics, to help determine the best route for NBHDL to choose.

NBHDL has not ruled out the conditional assessment recommended by METSCO but are weighing all options before proceeding. Direction will be determined 2nd quarter 2010. With regards to adopting a pole testing program, NBHDL will start a pole testing program based on a pre-determined sample size/year in 2010, and will continue it on an annual basis.

- b) With respect to Table 2.11, what is the comparable level of capital spending that North Bay is proposing for 2010 for each category (please include cross references to where in Exhibit 2 the values can be found)?

Response:

With respect to Table 2.11, the comparable level of capital spending that NBHDL is proposing for 2010 for each category is summarized in the table below. Table 2-14 (with an additional two columns added for cross reference purposes) from Exhibit 2 is also included.

	2010	
		Summation of projects with the following reference*****
	\$	
OH Line Assets*	4,199,882.71	A,B,C,D,E,F,G,H,I,J,K,L,N,O,P,S,X,Z,AA,AB,AC,AD,AE,AF,AG
	\$	
Substation Assets**	331,781.90	T,U,AJ
UG System Assets***		
	\$	
Total Renewal and Replacement	4,531,664.61	
	\$	
Line relocations	474,099.03	V
	\$	
New Services****	989,908.74	M,Q,R,Y,AH,AI
	\$	
TOTAL REGULAR DIST. CAPEX	5,995,672.38	
	\$	
Special Project - Pinewood Civil	2,093,821.14	W
	\$	
TOTAL DIST. CAPEX	8,089,493.52	AK
* OH Line Assets include all rehabilitation and renewal transformer purchases; \$742,855.74 of OH Line Assets is attributed to the renewal of plant related to the Pinewood Project. This explains the difference from the AM plan.		
** Reconstruction of a substation was originally planned for 2010, however it was deferred until the 2011 due to financial constraints imposed by the Pinewood Project, therefore the substation investment does not match the AM plan		
*** UG System Assets costs are reflected in OH Line Assets costs, as replacing vintage UG cable is a small part of a number of the OH rebuild projects		
**** Included in this is 25% of the Minor Betterment category total, the remainder of the Minor Betterment category is reflected in OH Line Assets		
*****Cross reference is from Exhibit 2, Table 2-14. Note: reference column added		

NORTH BAY HYDRO DISTRIBUTION LTD.
CAPITAL PROJECTS - 2010

Project Description	1820 Distribution Station Equipment - < 50 kV	1830 Poles, Towers and Fixtures	1835 Overhead Conductors and Devices	1840 Underground Conduit	1845 Underground Conductors and Devices	1850 Line Transformers - 850 & 851	1855 Services - 855 & 856	1860 Meters	1995 Contributions and Grants	Total Project
Distribution Assets - Project List >\$60k:										
Asset Management Activities	-	56,848	79,587	-	-	90,957	-	-	-	227,392
- Major Betterments -										
Airport Rd. - 44kV Line Extension	-	111,709	71,285	-	-	3,644	9,262	-	-	195,899
O'Brien St. - 44kV Line Extension	-	59,762	68,676	291	2,508	7,630	6,247	-	-	145,113
- Voltage Conversion -										
Worthington St. - Rebuild	-	181,039	157,429	930	45,301	158,420	58,950	-	-	602,068
McIntyre St. - Rebuild	-	112,501	70,456	17,383	39,492	76,731	21,610	-	-	338,174
Fraser South - Rebuild	-	37,074	21,157	14,626	15,611	64,576	37,101	-	-	190,144
Ferguson St. - Rebuild	-	34,597	20,023	15,912	17,207	21,298	47,430	-	-	156,468
Duke St. - Rebuild	-	50,110	33,776	265	814	12,222	34,896	-	-	132,084
Second Ave. - Rebuild	-	28,949	25,431	-	-	9,952	31,732	-	-	96,065
Wyld St. South - Rebuild	-	35,535	16,357	2,854	7,346	11,774	16,701	-	-	90,567
Victoria Ave. - Rebuild	-	38,434	20,689	132	-	8,975	15,995	-	-	84,226
- Minor Betterments -										
Customer Demand	-	95,185	71,028	6,126	-	34,886	94,747	-	-	301,972
- Secondary Services -										
Customer Demand	-	823	1,928	381	2	3,508	343,020	-	-	349,662
- Transformer Purchases -										
Asset Renewal and Rehabilitation - OH	-	-	-	-	-	255,410	-	-	-	255,410
Asset Renewal and Rehabilitation - UG	-	-	-	-	-	154,564	-	-	-	154,564
Pinewood Rebuild	-	-	-	-	-	92,382	-	-	-	92,382
New / Upgraded Services - OH	-	-	-	-	-	81,691	-	-	-	81,691
New / Upgraded Services - UG	-	-	-	-	-	161,301	-	-	(149,915)	11,386
- Metering -										
GS Commercial Customers - Smart Meter Upgrad	-	-	-	-	-	-	-	218,010	-	218,010
- Substations -										
MS # 14 - Fencing / Yard Improvements	214,106	-	-	-	-	-	-	-	-	214,106
MS # 18 - Bird Contamination	63,548	-	-	-	-	-	-	-	-	63,548
- Road Relocations -										
Customer Demand	-	88,546	61,631	12,658	50,100	18,962	242,202	-	(153,754)	320,345
- Pinewood Conversion -										
Civil & Prep	-	-	-	628,146	-	-	1,465,675	-	-	2,093,821
Electrical	-	-	10,204	-	179,159	102,943	450,550	-	-	742,856
Total Distribution Assets - Project List >\$60k	277,654	931,112	729,658	699,704	357,540	1,371,825	2,876,118	218,010	(303,669)	7,157,953

Gross Spend
Referen
Column

227,392.28 A
195,899.12 B
145,113.46 C
602,068.13 D
338,173.71 E
190,144.33 F
156,467.60 G
132,083.64 H
96,064.87 I
90,566.59 J
84,226.02 K
301,972.45 L
349,662.02 M
255,409.52 N
154,564.06 O
92,382.28 P
81,690.60 Q
161,301.48 R
218,010.48 S
214,105.68 T
63,548.00 U
474,099.03 V
2,093,821.14 W
742,855.74 X

Capital Projects 2010 Con't

Project Description	1820 Distribution Station Equipment - < 50 kV	1830 Poles, Towers and Fixtures	1835 Overhead Conductors and Devices	1840 Underground Conduit	1845 Underground Conductors and Devices	1850 Line Transformers - 850 & 851	1855 Services - 855 & 856	1860 Meters	1995 Contributions and Grants	Total Project			
Distribution Assets - Project List <\$60k:													
Generator Connections	-	55,613	-	-	-	-	-	-	(40,000)	15,613	55,612.97	Y	
- Major Betterments -													
Bond St. - Transfer 12kV	-	12,432	3,085	-	-	28,962	3,084	-	-	47,563	47,562.71	Z	
- Voltage Conversion -													
Bloem St. - Rebuild	-	22,772	10,570	-	-	2,768	18,243	-	-	54,354	54,353.86	AA	
Sixth Ave. - Rebuild	-	12,699	15,018	-	-	3,599	11,053	-	-	42,369	42,369.40	AB	
Ferguson St. - Rebuild	-	3,075	10,757	-	-	5,993	10,109	-	-	29,934	29,934.15	AC	
Wyld St. Line - Rebuild	-	12,176	3,233	-	-	1,965	5,860	-	-	23,234	23,234.44	AD	
McLaren St. - Rebuild	-	1,820	5,876	-	-	-	13,653	-	-	21,349	21,349.21	AE	
Seventh Ave. - Rebulid	-	2,356	3,990	-	-	1,412	9,490	-	-	17,248	17,247.68	AF	
Harvey St. - Partial Line Rebuild	-	7,015	4,746	-	-	1,633	2,536	-	-	15,930	15,930.12	AG	
- Primary Services -													
Customer Demand	-	21,108	10,904	1,477	89,555	25,606	4,729	-	(144,513)	8,866	153,379.73	AH	
- Subdivisions -													
Customer Demand	-	4,244	3,290	14,012	50,312	22,638	18,273	-	(106,251)	6,518	112,768.83	AI	
- Substations -													
MS # 15 - Fencing / Station Repair	54,128	-	-	-	-	-	-	-	-	54,128	54,128.22	AJ	
Total Distribution Assets - Project List <\$60k:	54,128	155,311	71,470	15,489	139,867	94,576	97,030	0	(290,765)	337,107			
Total Distribution Asset Additions	331,782	1,086,423	801,128	715,194	497,407	1,466,401	2,973,148	218,010	(594,434)	7,495,060	8,089,493.52	AK	

Capital Projects 2010 Con't

Project Description	1908 Buildings and Fixtures	1915 Office Furniture and Equipment	1920 Computer Equipment - Hardware	1925 Computer Software	1930 Transportation Equipment	1940 Tools, Shop and Garage Equipment	Total Project
General Plant:							
Buildings / Fixtures	32,279	-	-	-	-	-	32,279
Furniture / Equipment	-	25,285	-	-	-	-	25,285
IT Requirements - Hardware & Software	-	-	26,468	10,760	-	-	37,228
IT Requirements - AS400 Upgrade	-	-	-	49,494	-	-	49,494
IT Requirements - LEAP Initiative	-	-	-	26,899	-	-	26,899
IT Requirements - Click 2 Guv	-	-	-	75,317	-	-	75,317
Fleet	-	-	-	-	51,000	-	51,000
Tool Requirements	-	-	-	-	-	59,715	59,715
Total General Asset Additions	32,279	25,285	26,468	162,469	51,000	59,715	357,217

<i>Additions per Continuity Schedule</i>	32,279	25,285	26,468	162,469	51,000	59,715
	0	0	0	0	0	0

Total Asset Additions by USoA

7,852,276

LOAD FORECAST & OPERATING REVENUE

Question #10

Reference: Exhibit 3, page 3

- a) Please provide a schedule setting out the rates and volumes by customer class supporting the 2010 test year revenues reported here.

Response:

Distribution Revenue:

Customer Class	kWh	kW	Number of Customers/ Connections	Monthly Service Charge	Volumetric Charge	Total Fixed Revenue	Total Variable Revenue	SSS Administration	Transformer Ownership Allowance	Total Distribution Revenue
Residential	214,191,103		21,076	\$ 12.53	\$ 0.0112	\$ 3,168,987	\$ 2,388,231			5,557,218
General Service <50 kW	84,727,251		2,646	\$ 21.70	\$ 0.0139	\$ 689,018	\$ 1,181,098			1,870,116
General Service >50		636,801	287	\$ 311.40	\$ 2.1783	\$ 1,072,462	\$ 1,387,169		\$ (57,749)	2,401,881
Intermediate		77,038	2	\$2,399.29	\$ 0.7321	\$ 57,583	\$ 56,402		\$ (47,250)	66,735
Unmetered Scattered Load	337,793		21	\$ 21.75	\$ 0.0139	\$ 5,481	\$ 4,709			10,190
Street Lighting		7,702	5,682	\$ 0.44	\$ 2.3570	\$ 30,001	\$ 18,154			48,155
Sentinel Lighting		1,411	511	\$ 1.98	\$ 6.9018	\$ 12,141	\$ 9,738			21,880
SSS Administration								\$ 73,632		73,632
Total						\$ 5,035,674	\$ 5,045,501	\$ 73,632	\$ (105,000)	\$ 10,049,807

Note: There is a net difference of \$2,391. due to rounding (# of decimal places when inputting the rates). See schedule in response question c). Also Table 3-1 has a difference in the allocation of the transformer ownership allowance. General Service >50 should have an amount of \$58,777. and Intermediate should be \$46,223.

- b) Please clarify whether the rates used in part (a) included:
- Smart Meter charges
 - LV charges
 - Discounts for transformer ownership where applicable.

Response:

Smart meter and low voltage charges have not been included.
Transformer ownership allowance has been included.

- c) Please reconcile the 2010 revenues (both Other Operating Revenue and Distribution Revenue {at current rates}) reported here with the values in Exhibit 6, page 3.

Response:

	Table 3-1 Summary of Operating Revenue			Table 6-1 Revenue Deficiency
Revenue		RSVA Interest	SSS Admin	
Distribution Revenue	10,052,198		- 73,632	9,978,566
Other Operating Revenue (Net)	782,990	- 31,506	73,632	825,116
Total Revenue	10,835,189	10,803,683	10,803,683	10,803,683

Question #11

Reference: Exhibit 3, pages 8-18

- a) In its EB-2007-0680 Report (page 33) the Board directed Toronto Hydro to work with other parties to understand differences in load forecast methodologies employed. Has North Bay had any discussions with Toronto Hydro regarding changes it may be implementing in its load forecast methodology? If yes, what was the outcome and how are they reflected in North Bay's current approach?

Response:

NBHDL has not had any discussions with Toronto Hydro regarding changes it may be implementing in its load forecast methodology.

- b) Is North Bay aware of the fact that for its 2010 Rate Application (EB-2009-0139), Toronto Hydro has changed its load forecasting methodology to one that uses class specific models to forecast sales on a class specific basis? If yes, please comment as to why the Toronto data supports such analysis while (as discussed on pages 8-9) North Bay's data does not.

Response:

Yes NBHDL is aware of the fact that for its 2010 Rate Application (EB-2009- 0139), Toronto Hydro has changed its load forecasting methodology to one that uses class specific models to forecast sales on a class specific basis. NBHDL notes that it appears the Toronto Hydro model uses Purchased kWh Energy per day by customer class by month as the actual data which the regression analysis attempts to predict. In the case of NBHDL, Purchased kWh Energy per day by customer class by month is not available. As a result, NBHDL would not be able to develop at this time a load forecast consistent with the approach used by Toronto Hydro in its 2010 Rate Application.

In addition, NBHDL understands that in the 2010 cost of service rate applications for Burlington Hydro Inc., Cambridge and North Dumfries Hydro Inc. and Kitchener-Wilmot Hydro Inc, the load forecasting evidence for these three distribution companies indicates they attempted to conduct the load forecast on a class specific basis. However, in all three cases a load forecasting methodology based on total system purchases was more accurate than a load forecast based class specific data. Consequently, the three distributors based their load forecast in their 2010 rate applications on a total system basis. Based on this experience, it is NBHDL view that class specific load forecast would also be less accurate for NBHDL than the total system forecast.

- c) What other regression models (using alternative explanatory variables) were tested? Please provide a description of each and a summary of the results similar to that shown on page 15.

Response:

In conducting the regression analysis for the load forecast, NBHDL's objectives were to achieve a 95% R square and to have a prediction model with variables that could be explained. NBHDL used the standard variables used by other distributors for load forecasting in their 2009 cost of service applications. When these standard variables were used with NBHDL data the resulting regression analysis provided a 98.4% R square and there were no coefficients that did not make intuitive sense. As a result NBHDL did not test other models as its objective were achieved with the first model tested.

- d) What was the basis/source for the Population forecast used?

Response:

Population data is bases on Statistic Canada Census Information.

- e) Which 2009 Ontario Economic Outlook was used and what were the projected GDP growth rates for 2009 and 2010?

Response:

The source of data for the 2009 Ontario Economic Outlook was the 2009 Ontario Government Budget. The projected GDP growth rates for 2009 and 2010 are (2.5) and 2.3, respectively.

- f) With respect to the table on page 17 (Table 6), please calculate the predicted “weather normal” sales for 1999-2009 by using the “weather normal variables” as opposed to actual weather HDD and CDD values in the model.

Response:

The requested predicted “weather normal” sales for 1999-2009 by using the “weather normal variables” as opposed to actual weather HDD and CDD values in the model is provided below

Year	Predicted Weather Normal
Purchased Energy (GWh)	
1999	593.8
2000	585.3
2001	594.1
2002	595.9
2003	589.8
2004	590.8
2005	603.9
2006	594.1
2007	599.3
2008	594.4
2009	598.2

- g) Why has the 10-year weather normal average been used (page 17)?

Response:

The 10-year weather normal average was used to be consistent with the numbers of years of actual monthly purchases data used in the regression analysis.

- h) With respect to pages 17-18, please provide schedules detailing the calculation of the 2.5 GWh and 7.6 GWh savings attributed to CDM in 2009 and 2010 respectively. In the response please provide details on the individual programs contributing to the assumed savings in terms of the number of participants, free ridership and unit savings for each measure.

Response:

The following table summarizes savings by program and year and identifies the number of participating customers. Please refer to the answer provided to Board Staff Interrogatory #5 for more details on CDM impacts. NBHDL has assumed that free ridership is not a relevant issue as these are programs that impact the load forecast directly and are delivered by NBHDL staff. NBHDL acknowledges that free ridership is a factor that must be considered in LRAM.

CDM Impacts by Program on Load Forecast - kWh
 and Customers:

<u>Program</u>	<u>Without Losses</u>		<u>With Losses</u>		<u>Participating Customers</u>	
	<u>2009</u>	<u>2010</u>	<u>2009</u>	<u>2010</u>	<u>2009</u>	<u>2010</u>
Street Lighting	0	500,000	0	524,000	1	1
Appliance Retirement	206,866	620,598	216,796	650,387	440	440
		1,929,97		2,022,60		
Direct Install	643,324	1	674,203	9	293	293
	1,513,56	4,178,13	1,586,21	4,378,68		
ERIP	6	3	7	4	15	14
	2,363,75	7,228,70	2,477,21	7,575,68		
Total	5	2	5	0		

- i) What was North Bay's average loss factor for the 1999-2008 period used to develop its forecast model?

Response:

The loss factor used to develop its forecast model is 4.8%

Question #12

Reference: Exhibit 3, pages 19-25

- a) Please confirm whether the actual and forecast of customer/connection counts shown in Tables 3-10 and 3-12 are mid-year values or year-end values.

Response:

The actual and forecast of customer/connection counts shown in Table 3-10 are the 12 month average for each year. Table 3-12 is the previous year multiplied by the growth rate.

- b) What is the most recent actual customer count for each class and on what month of 2009 are they based?

Response:

Rate Class	Number of Customers as at October 2009
Residential	21,007
General Service <50 kW	2,629
General Service >50 to 2999 kW	273
General Service >3000 to 4999 kW	2
Street Lights	5572
Sentinel Lights	518
Unmetered Scattered Load	21
Total	30,022

- c) Please confirm that the calculation of the geometric mean annual growth rate in Table 3-14 really only considers the average use values for 1999 and 2008. If this is not the case, please explain more fully how the value is calculated.

Response:

The calculation of annual growth rate in Table 3-14 is not based on a geometric mean analysis but an average mean analysis which is the simple average growth rate over the period 1999 to 2008.

- d) Please provide the Hydro One information relied on in order to determine the weather sensitivity by rate class (page 22).

Response:

The Hydro One information relied on in order to determine the weather the GS > 50 kW class is shown below.

General service >50kW	2004 kWh (Actual)	% Weather Sensitive
Weather sensitive load	170,433,523	82%
Non-weather sensitive load	38,379,373	
TOTAL	208,812,896	

- e) Given that residential uses include lighting, cooking and refrigeration, why is it reasonable to assume that the Residential class is 100% weather sensitive (per page 22)?

Response:

NBHDL has assumed that 100% of Residential and GS < 50 kW rate classes are weather sensitive based on North Bay's understanding of the weather normalization process used by Hydro One to provide weather normalized load data for the cost allocation study

The Hydro One data shows that for General Service >50kW class it has a certain percentage of load that is weather sensitive and non-weather sensitive as provided in response to d). The data also shows that for General Service >3000kW, Street Lighting, Sentinel Lighting and USL the total actual weather amounts and the total normalized amounts are the same which suggest they are not weather sensitive. The data shows the classes that are partially weather sensitive and those that are 100% non-weather sensitive but the Residential and GS<50 loads did not fall into these two categories. As a result, NBHDL concluded that Residential and GS<50 loads are 100% weather sensitive. If these classes were partially weather sensitive then Hydro One would have provided similar information as was provided for the General Service >50kW class.

- f) Please provide a schedule setting the average weather normalized use per customer for each class based on the data provided by Hydro One Networks for North Bay's 2007 Cost Allocation filing and indicate the year the data is based on.

Response:

The following provides a schedule setting the 2004 average weather normalized use per customer for each class based on the data provided by Hydro One Networks for North Bay's 2007 Cost Allocation filing.

Residential	10,563
GS<50 kW	34,741
GS>50 kW	804,736
GS 3000-5000 kW	29,191,410
Street Lighting	626
Sentinel Lighting	1,099
USL	18,469

- g) Please apply the same methodology as used by North Bay to weather normalize 2010 usage and determine the weather normalized use by customer class for 2008 using the predicted total weather normalized purchases as determined in Question 11, part (f) and the actual non-weather normalized used by class for 2008. Please provide a schedule that sets out the results in terms of total weather normalized use by customer class and per customer weather normalized use by customer class for 2008.

Response:

The requested information is provided in the following table

2,008	Residential	General Service < 50 kW	General Service > 50 to 2999 kW	General Service > 3000 to 4999 kW	Streetlights	Sentinel Lights	Unmetered Loads	Total
kWhs Weather Normalized	213,877,085	88,750,061	215,762,459	44,528,104	3,327,501	567,633	351,268	567,164,110
Customers	20,757	2,616	273	2	5,550	521	21	29,740
kWhs Weather Normalized / Customer	10,304	33,926	790,339	22,264,052	600	1,090	16,727	

- h) Please re-do Table 3-18 assuming that the Residential and GS<50 classes are 50% weather sensitive. Note: The purpose of this question is to test the sensitivity of the results to the assumptions regarding class weather sensitivity.

Response:

The requested updated Table 3-18 assuming that the Residential and GS<50 classes are 50% weather sensitive is provided below.

Year	Residential	General Service < 50 kW	General Service > 50 to 2999 kW	General Service > 3000 to 4999 kW	Streetlights	Sentinel Lights	Unmetered Loads	TOTAL
Non-normalized Weather Billed Energy Forecast (GWh)								
2009 NON-Normalized Bridge	215.2	88.3	220.1	43.1	3.3	0.5	0.3	570.8
2010 NON-Normalized Test	216.5	87.9	224.6	41.7	3.2	0.5	0.3	574.8
Adjustment for Weather (GWh)								
2009 Actual (J-A) and Weather Normal for remaining	(0.7)	(0.3)	(1.2)	0.0	0.0	0.0	0.0	(2.2)
2010 Normalized Test	(1.2)	(0.5)	(2.1)	0.0	0.0	0.0	0.0	(3.8)
Adjustment for CDM (GWh)								
2009 Actual (J-A) and Weather Normal for remaining	(0.2)	(0.8)	(0.7)	(0.7)	0.0	0.0	0.0	(2.4)
2010 Normalized Test	(0.6)	(2.4)	(2.3)	(1.4)	(0.5)	0.0	0.0	(7.2)
Weather Normalized Billed Energy Forecast (GWh)								
2009 Actual (J-A) and Weather Normal for remaining	214.2	87.2	218.3	42.4	3.3	0.5	0.3	566.3
2010 Normalized Test	214.7	84.9	220.3	40.3	2.7	0.5	0.3	563.7

Question #13

Reference: Exhibit 3, page 26

- a) Please explain the reduction in the Affiliate Administration Fee revenue in 2010 as compared to 2008 and 2009.

Response:

The reduction in the Affiliate Administration Fee revenue in 2010 as compared to 2009 is explained in question #12 of the Board Staff Interrogatories please refer to that response. The reduction in the Affiliate Administration Fee from 2010 to 2008 is for the same reason.

- b) Is the reduction in Interest and Dividend Income (Investments and Bank Deposits) in 2010 solely due to lower interest rates or are there other factors involved? If so, please describe.

Response:

The reduction in Interest and Dividend Income (Investments and Bank Deposits) in 2010 is not solely due to lower interest rates. As stated in exhibit 3, pg. 26, line 12-14 "The interest income in the 2010 test year decreases by \$59,931 from the 2009 bridge year due to a decrease in the average monthly bank balances. The interest rate used to project the 2010 bank interest was the April 2009 actual bank rate of .055%" This statement refers to the Bank Deposit amount.

The reduction in account 4405 for Interest and Dividend Income – Investments of \$5,878 is solely related to a decrease in the interest rate.

- c) Please provide a schedule that sets out the SSS Admin Fee revenues for the years 2007-2010.

Response:

Provided below is a schedule that sets out the SSS Admin Fee revenues for the years 2007-2010.

Revenue	2010 Test	2009 Bridge	2008 Actual	2007 Actual
SSS Administration Charge	73,632	73,630	76,476	73,942

OPERATING COSTS

Question #14

Reference: Exhibit 4, page 8

- a) Please provide the inflation rate forecast from the Ontario Economic Outlook used as the reference for North Bay's GDP forecast (per Exhibit 3, page 14).

Response:

The inflation rate forecasts from the Ontario Economic Outlook for 2010, 2011 and 2012 are 1.9%, 2.5% and 2.0% respectively.

Question #15

Reference: Exhibit 4, page 24-25

- a) Do the Smart Grid and FIT/MFIT spending reported here represent North Bay's Green Energy Plan as it is required to file under the GEGEA? Alternatively, is the spending (particularly that associated with Smart Grid) aimed at supporting North Bay's development of a Green Energy Plan?

Response:

The Smart Grid and FIT/MFIT spending identified in Exhibit 4 will generate information and experience that will be integrated to the extent possible into NBHDL's Green Energy Plan and to support ongoing longer term research on customer behaviour.

- b) Please outline the specific planned activities associated with the \$40,000 Smart Grid spending on Planning Requirements in 2010.

Response:

The specific planned activities are outlined in the second paragraph of item a) on page 24 of Exhibit 4. To summarize NBHDL has taken a conventional approach to developing an Asset Management Plan before the GEGEA was finalized. The Asset Management Plan must be updated to include smart grid components that will benefit NBHDL and its customers. NBHDL determined these costs after discussing requirements with the third party that assisted with the development of the Asset Management Plan.

- c) Please reconcile the statement on page 25 that smart meter deployment will be completed in early 2010 with that at Exhibit 2, page 10 which has a 2011 completion date.

Response:

The statement on page 25 of Exhibit 4 refers to the deployment of smart meters for residential and small general service customers. NBHDL hopes to complete this deployment in 2010. Exhibit 2, page 10 refers to a broader initiative to install interval meters at larger general service customers that do not currently benefit from an interval meter.

- d) How did North Bay determine that the Real Time Operating Pilot-Industrial and Residential should be pursued at this time?

Response:

Many residential customers have expressed an interest in the ability to better control electricity costs and requested support and guidance. There are a number of factors driving this interest including the high portion of seniors and retired people in the community (approximately 30-35% of families), the large amount of electric space and water heating relied on in a climate much harsher than southern Ontario and concerns about how to manage around the new time of use rate structure. NBHDL would also like to work with targeted low income groups. On this last point many residential customers have a fear of the new time of use rate structure and perceive they have no capacity to respond to pricing signals or a need to conserve. Experience with this Pilot should address these concerns and identify strategies for future programs and initiatives.

Two large industrial customers expressed interest in an ability to better manage electricity costs and consumption on a real time basis. One of these customers has a very large natural gas fired standby generator that could be dispatched when appropriate. The second customer has a very large process oriented load that might be able to be shifted or staged in a different way than today.

- e) What is the basis for the \$45,000 cost attributed to the FIT/MFIT programs?

Response:

The basis of the \$45,000 cost is an estimated 450 hours of work at \$100 per hour consulting time. NBHDL has determined this rate based on a discussion with a qualified third party.

Question #16

Reference: Exhibit 4, page 42

- a) Please breakdown the impact of "Labour" as a cost driver and show each of the following items separately: i) annual wage escalation, ii) changes in staff complement, and iii) changes due to level of capital activity.

Response:

The impact of "Labour" as a cost driver for each of the following items in 2010 is shown separately in the table below: i) annual wage escalation, ii) changes in staff complement, and iii) changes due to level of capital activity.

Exhibit 4, pg 42 Table 4-7 OM&A Cost Drivers

Effect on OM&A

Annual Wage Escalation	54,695
New Hires 2010	159,464
Hires in 2009 Partial year	39,038
Increased Capital Activity	-103,288
Reduction in Charges to Affiliates	40,087
Other Maternity Coverage/Rate progression/Overtime	31,747
Total Effect on OM&A	<u>221,743</u>

- b) Please explain why the increased spending on Tree Trimming initiated in 2009 carries on in 2010.

Response:

The increased spending on Tree Trimming initiated in 2009 carries into 2010 because in prior years the budget amount was not sufficient enough to cover all portions of the respective cycle and in some years out of cycle tree trimming activities were eliminated all together. When cycles are not trimmed or out of cycle danger trees are not addressed safety risks are increased to the public and NBHDL workers. As well, the chance of outages is increased. Therefore it was determined that the 2009 figure would be carried forward into 2010 with an inflation factor of 2.3%.

- c) The table suggests that increased spending on Preventative Maintenance is almost \$130,000 over 2008 levels in 2010. Please provide a brief summary of the activities involved and their associated costs.

Response:

The table states that increased spending on Preventative Maintenance is \$229,000 over 2008 levels in 2010 not as the question states of \$130,000. The activities involved and their associated costs are shown in the table below.

Preventative Maintenance Program 2010

Lines	Pole Testing - 4000 poles	16,000
Lines	Switch	8,000
Lines	Misc.	30,000
Substations	Misc. Items	9,060
Substations	Misc. Contracted Services	20,000
Substations	Costello - Contracted Services	6,000
Substations	Grounding Studies 4 substations	140,000
Total		<u>229,060</u>

- d) The table suggests that increased spending on Training in 2010 will be \$100,000 higher than in 2008. Please outline the types of training being undertaken and the number of staff involved.

Response:

The following table outlines the types of training being undertaken, the number of staff involved and the cost breakdown:

Training Budget - 2010

	# of EE's	Course Fee	Incidental	Total
Operations Training:				
Safety Training - 6 times per year, plus additional courses	All EE's	14,731	984	15,715
New Safety Program	All EE's	7,800	-	7,800
HeartZap Annual WHIMIS	45	5,985	-	5,985
Annual CPR / AED	31	-	-	-
Mearie Leadership Course - Mgmt	1	1,023	655	1,678
Excel / Computer Training - Mgmt	1	512	-	512
Forklift Training / Upgrade	9	10,639	-	10,639
Chainsaw Training / Upgrade	4	5,000	-	5,000
EUSA - Supervisor Training - Chargehands	2	818	1,105	1,923
Kleinburg Training - Learner Program - Powerline Maintainer - Level 3	2	8,184	4,950	13,134
Kleinburg Training - Learner Program - Powerline Maintainer - Level 1	1	6,138	2,853	8,991
Meter Technician - Proficiency	1	1,615	1,115	2,730
Substation Electrician - Proficiency	1	1,640	1,115	2,755
Operations Total		64,085	12,777	76,863
Engineering Training:				
USF - 5 days (assume 3 overnight courses)	1	2,558	1,719	4,276
Mearie - 3 days (assume 3 overnight courses)	1	2,046	1,432	3,478
Tradeshows/Conferences/Round Table - 5 trips (2 nights each)	1	4,092	3,785	7,877
Sudbury Hydro - 2 days	1	-	430	430
Mgmt - Misc. 4 additional courses (assume 3 overnight)	1	2,046	1,780	3,826
Engineering Technicians - Courses - assumed 9 courses - assumed 4 of the courses would be out of town requiring accommodations	4	5,217	2,448	7,665
Engineering Technician - Hydro One Training - 2 week course out of town	1	5,115	1,228	6,343
GIS Technician - assumed 3 courses - assumed 2 of the courses would be out of town requiring accommodations	1	1,535	1,187	2,721
GIS Technician - Specific ESRI/GPS Training - assumed at NBH (over and above full staff training)	1	5,115	-	5,115
Department - GIS Staff Training (assumed 4 days in house)	6	5,115	-	5,115
Engineering Total		32,838	14,008	46,846
Finance Training:				
Accounting - Fixed Asset Module - Systems Training	3	2,000	1,000	3,000
Accounting - CHUG	2	4,600	-	4,600
Accounting - CGA	1	1,600	1,020	2,620
Accounting - Regulatory	3	3,900	320	4,220
Accounting - Webinars	3	2,000	640	2,640
Customer Info - CHUG	1	600	-	600
Customer Info - Webinars / Other	4	800	1,500	2,300
Customer Info - Computer Training - Word	3	1,000	-	1,000
Collecting - Small claims/Webinars	2	750	-	750
Department - Computer Training - Excel	6	1,000	600	1,600
Billing / Collecting - Webinars / Other	2	1,500	-	1,500
Admin - Webinars / Other	2	350	600	950
Finance Total		20,100	5,680	25,780
Admin Training:				
Training - IT	2	6,000	-	6,000
Admin Total		6,000	-	6,000
HR Training				
Compensation	1	422	-	422
Health and Safety	1	406	-	406
Training Development	1	395	-	395
Human Resources	1	385	-	385
Employee and Labour Relations	1	370	-	370
NKE Course	1	406	-	406
PPA Course	1	406	-	406
CHRP Exam Workshop	1	409	403	812
Human Resources Total		3,200	403	3,603
Overall training costs		126,223	32,868	159,092

**Incidentals include accomodations / travel / meals*

Question #17

Reference: Exhibit 4, pages 50-51

a) What is the basis for North Bay's estimate of \$10,000 for intervenor costs?

Response:

The following table outlines the forecasted cost to prepare the cost of service application. This cost estimates assumes that the review of NBHDL's application will be conducted through a written hearing process. There have been no costs included associated with a possible technical conference, settlement conference or oral hearing. In the process of preparing this response, NBHDL noticed that the costs associated with Ontario Energy Board and Intervenors have been reversed. The cost for Intervenors should have been \$35,000 and the cost for the Ontario Energy Board should have been \$10,000. However the total cost of preparing the application remains the same which means there is no impact the on the proposed revenue requirement. The updated Intervenor costs are now more in line with Intevrnor cost awards for similar size distributors that have completed a cost of service application with a written hearing process.

Name	Description	Amount
Ontario Energy Board	Cost of Review of Service Application	35,000
Temporary Employee	Assistance with Rate Application	29,050
Consultants	Providing models, guidance and clarification of requirements	75,950
Legal	Legal review of final application	10,000
Intervenor Costs	Costs awarded to intervenors	10,000
Total Cost of Service Application		\$ 160,000
Annual Recovery	split over 4 years	40,000
Cost of Service Application		\$ 40,000

b) Why is North Bay proposing to amortize its forecast IFRS transition costs over four years as opposed to recording them in a deferral account per the Board's EB-2008-0408 Report (page 27) issued July 2009?

Response:

Consistent with a few approved 2009 cost of service applications, NBHDL is proposing to amortize its forecast IFRS transition costs over four years and include the revenue collected in rates in a variance account to offset actual IFRS transition costs. This will reduce the amount in the variance account to be collected from customers once the IFRS transaction has been completed.

Question #18

Reference: Exhibit 4, page 53

- a) What low income bill assistance initiatives does North Bay have in place for 2009? What was the cost of these 2009 initiatives?

Response:

In terms of low income bill assistance NBHDL works with at least 100 customers to develop and implement customized payment programs based on individual circumstances. NBHDL tries to be flexible with these low income customers.

NBHDL made sure that low income groups had access to the OPA CDM programs. Approximately 4 Electricity Retrofit Incentive Applications were completed or underway from low income groups and roughly 90 refrigerators picked up under the Appliance Retirement program.

NBHDL contributed towards the costs of energy efficiency audits and resolved heating issues at 2 different low income complexes in 2009.

Many low income customers rely on electric heating. As a pilot, NBHDL installed electric thermal energy storage units which store electricity in off peak periods when electricity will be cheaper under the time of use structure. NBHDL will be assessing how this technology performs over the winter period at 2 different locations.

NBHDL did not track specific costs for these low income initiatives.

- b) Absent the OEB's LEAP, what are North Bay's plans for 2010?

Response:

In 2010 NBHDL will continue with the programs delivered in 2009. Also NBHDL will work to ensure that low income customers participate in the Real Time Operating Pilot – Residential as described on page 25 of Exhibit 4.

According to the funding methodology in the OEB's LEAP, NBHDL would have made \$15,000 for bill relief. Although LEAP is in transition NBHDL feels that this is a reasonable amount to make available to low income groups to help with 2010 electricity costs and deliver on the intent of LEAP.

Question #19

Reference: Exhibit 4, page 57

- a) Please explain the significant increase in overtime costs forecast for 2010 over 2009.

Response:

The significant increase in overtime costs forecasted for 2010 over 2009 is to support the capital program. A portion of the capital plan program requires that the employees perform the activity after normal hours during evenings and weekends. This staging helps to minimize impacts on business customers.

Question #20

Reference: Exhibit 4, page 59

- a) Please confirm that the numbers set out in Table 4-16 are the number of actual employees for each year.

Response:

The numbers set out in Table 4-16 are the number of actual employees for each year. The partial number of employees represents employees that have worked less than the full year. Example if an employee started in September then that employee would show as .75, 9/12 of a person.

- b) Please provide a separate schedule that sets out the number of approved full-time positions as of December 31st of each year. If there are any approved part-time positions, please note them separately.

Response:

The schedule below sets out the number of approved full-time positions as of December 31st of each year. The approved part-time positions are noted separately.

Employees at December 31						
Department	2010 Test	2009 Bridge	2008 Actual	2007 Actual	2006 Actual	2006 EDR
Total Employees						
Executive						5.0
Accounting/Finance	4.0	4.0	4.0	4.0	3.0	3.0
Administration	2.5	2.5	1.5	0.5	1.5	2.0
Billing/Collecting	4.0	4.0	4.0	5.0	5.0	6.0
CDM	1.0	-	-	-	-	-
Customer Services	5.0	4.0	3.8	4.0	4.0	6.0
Human Resources	1.0	1.0	1.0	2.0	2.0	2.0
Engineering	6.0	5.0	4.0	4.0	4.0	6.0
Lines	16.0	16.0	16.0	12.0	13.0	13.0
Operations Administration	4.0	4.0	4.0	4.0	3.0	3.0
Customer Services Technician	2.0	3.0	3.0	3.0	3.0	3.0
Metering	2.0	1.0	1.0	1.0	1.0	1.0
Substations	2.0	1.0	1.0	1.0	2.0	2.0
Stores	1.0	1.0	1.0	1.0	1.0	1.0
Total	50.5	46.5	44.2	41.5	42.5	53.0
Full Time Employees						
Accounting/Finance	4.0	4.0	4.0	4.0	3.0	3.0
Administration	2.0	2.0	1.0	-	1.0	1.0
Billing/Collecting	4.0	4.0	4.0	5.0	5.0	4.0
CDM	1.0	-	-	-	-	-
Customer Services	5.0	4.0	3.0	4.0	4.0	4.0
Human Resources	1.0	1.0	1.0	2.0	2.0	2.0
Engineering	6.0	4.0	4.0	4.0	4.0	4.0
Lines	16.0	16.0	16.0	12.0	13.0	12.0
Operations Administration	4.0	4.0	4.0	4.0	3.0	3.0
Customer Services Technician	2.0	3.0	3.0	3.0	3.0	3.0
Metering	2.0	1.0	1.0	1.0	1.0	1.0
Substations	2.0	1.0	1.0	1.0	2.0	2.0
Stores	1.0	1.0	1.0	1.0	1.0	1.0
Total	50.0	45.0	43.0	41.0	42.0	40.0
Temporary Employees						
Accounting/Finance	-	-	-	-	-	-
Administration	0.5	0.5	0.5	0.5	0.5	1.0
Billing/Collecting	-	-	-	-	-	2.0
CDM	-	-	-	-	-	-
Customer Services	-	-	0.8	-	-	2.0
Human Resources	-	-	-	-	-	-
Engineering	-	1.0	-	-	-	2.0
Lines	-	-	-	-	-	1.0
Operations Administration	-	-	-	-	-	-
Customer Services Technician	-	-	-	-	-	-
Metering	-	-	-	-	-	-
Substations	-	-	-	-	-	-
Stores	-	-	-	-	-	-
Total	0.5	1.5	1.2	0.5	0.5	8.0

Question #21

Reference: Exhibit 4, page 62

- a) Please reconcile the employee number reported in Tables 4-16 and 4-17 for 2010 with the staff level requirements identified in Appendix A-2, Exhibits 4.1 and 4.2.

Response:

See reconciliation below of tables 4-16 to 4-17

Table 4-16 NBHDL Employee Compliment 2010 Test - 2006 Approved EDR

Department	2010 Test	
Total Employees		
Executive		
Accounting/Finance	4.0	
Administration	2.5	
Billing/Collecting	4.3	
CDM	1.0	
Customer Services	5.4	
Human Resources	1.0	
Engineering	5.8	1) - 5.8 included 4.8 Engineering Union Employees and 1 Manager, Engineer
Lines	16.0	2)
Operations Administration	4.0	
Customer Services Technician	2.0	3)
Metering	2.0	3)
Substations	2.0	3)
Stores	1.3	
Total	51.3	

Table 4-17 Union Technical and Trades Department Employee 2010 Compliment Justification

Department	Capital	Preventative	Operations	Train/Meetings	Total	
Engineering - Union						
Total Hours Required	7,250	828	601	360	9,039	
Avg hours worked per employee	1,883	1,883	1,883	1,883	1,883	
# of Employees	3.8	0.4	0.3	0.2	4.8	1)
Lines - Union						
Total Hours Required	24,014	2,451	3,845	1,405	31,715	
Avg hours worked per employee	1,982	1,982	1,982	1,982	1,982	
# of Employees	12.1	1.2	1.9	0.7	16.0	2)
Substation/Metering/Customer Service Technicians - Union						
Total Hours Required	2,064	3,312	4,866	556	10,798	
Avg hours worked per employee	1,800	1,800	1,800	1,800	1,800	
# of Employees	1.1	1.8	2.7	0.3	6.0	3)

See table below that reconciles Table-4-17 to the Asset Management Plan Appendix 2-A, 4-1 and 4-2.

NBHDL is in the process of implementing the Asset Management Plan, the 2010 Test Year forecast was not entirely based on this plan. Note that the Asset Management Plan uses hour/year worked by employee of 1656, NBHDL has used the actual hour/year worked based on the employees of the department. This difference accounts for some of variance in the # of people required.

Table 4-17 Union Technical and Trades Department Employee Capital & Preventative Mtce

Department	Capital	Preventative	Total
Engineering - Union			
Total Hours Required	7,250	828	8,078
Avg hours worked per employee	1,883	1,883	1,883
# of Employees	3.8	0.4	4.3
Lines - Union			
Total Hours Required	24,014	2,451	26,465
Avg hours worked per employee	1,982	1,982	1,982
# of Employees	12.1	1.2	13.4
Substation/Metering/Customer Service Technicians - Union			
Total Hours Required	2,064	3,312	5,376
Avg hours worked per employee	1,800	1,800	1,800
# of Employees	1.1	1.8	3.0
Total			
Total Hours Required	33,328	6,591	39,919
Avg hours worked per employee	1,948	1,874	1,935
# of Employees	17.1	3.5	20.6

Asset Management Plan 4.1 and 4.2

Department	Capital	Preventative	Total
Engineering - Union			
Hours required	7,869	513	8,382
Employees	4.37	0.31	4.68
Lines - Union			
Hours required	21,840	2,451	24,291
Employees	13.19	1.48	14.67
Substation/Metering/Customer Service Technicians - Union			
Hours required	640	3,047	3,687
Employees	0.36	1.84	2.20
Total			
Total Hours Required	30,349	6,011	36,360
Avg hours worked per employee	1,694	1,656	1,687
# of Employees	17.92	3.63	21.55

Variance 4-17- Asset Management Plan

Department	Capital	Preventative	Total
Engineering - Union			
Hours required	(619)	315	(304)
Employees	(0.52)	0.13	(0.39)
Lines - Union			
Hours required	2,174	-	2,174
Employees	(1.07)	(0.24)	(1.32)
Substation/Metering/Customer Service Technicians - Union			
Hours required	1,424	265	1,689
Employees	0.79	0.00	0.79
Total			
Total Hours Required	2,979	580	3,559
Avg hours worked per employee	254	218	248
# of Employees	(0.81)	(0.11)	(0.92)

Question #22

Reference: Exhibit 4, page 70

- a) What is the basis for the charges North Bay applies to Retailers? Do the charges to Retailers cover North Bay's costs (Note – In responding please address both incremental costs and average embedded costs, including allocation of overheads?)

Response:

NBHDL charges the Retailers based on the following from the Electricity Distribution Rate Handbook Chapter 11. Charges are calculated as follows:

I. Non-STR:

- One Time Set up Charge - \$100
- Monthly Fixed Charge - \$20 / retailer / month
- Variable Charge - \$0.50/ customer / month
- LDC Consolidated Billing Charge - \$0.30 / customer / month
- Retailer Consolidated Billing Charge – (-\$0.30) / customer / month (a credit to the retailer)

II. STR:

- Request Fee - \$0.25 / request received
- Processing Fee - \$0.50 / request processed (does not apply to rejected requests)
- Information Delivery Charge -\$2.00 / request above 2 per year plus any incremental costs

Costs Associated with Retailers- Fiscal 2009 Forecast

Savage Hub Fees	6,527
Billing, CAR's, AP Direct Labour and Burdens	76,471
Newspaper and Radio Articles	3,700
Total Costs	<u>86,698</u>
 Billed to Retailers	 44,540
 Net Cost to NBHDL	 <u>42,158</u>

Question #23

Reference: Exhibit 4, page 79

- a) Please confirm that none of North Bay's depreciation expense is recovered through overhead burdens charged to OM&A or capital programs.

Response:

Depreciation for the fleet is included in the calculation to determine NBHDL's hourly truck rate.

Question #24

Reference: Exhibit 4, page 80

- a) Do the tax calculations for 2010 reflect the May 2009 budget changes that, effective July 1, 2010, eliminate the small business deduction surtax? If not, please provide an updated tax calculation.

Response:

The tax calculations for 2010 do not reflect the May 2009 budget changes that, effective July 1, 2010, eliminate the small business deduction surtax. An updated tax calculation will be included with the revised Revenue Requirement Work Form requested in question # 27 from the OEB staff.

COST OF CAPITAL

Question #25

Reference: Exhibit 5, Appendix 5-A

- a) If North Bay Hydro wanted to pay off the promissory note with the City, are there any impediments to North Bay Hydro borrowing from a third party such as a commercial bank? For example, would it require the "guarantee" or "permission" of its shareholders to undertake such borrowing?

Response:

There could be impediments to borrowing the total amount of the promissory note from a commercial bank. As a minimum, NBHDL would require "permission" from its shareholder.

- b) If the response to part (b) is yes, is there any reason to expect these impediments would prevent it from undertaking 3rd party borrowing? For example, if a "guarantee" was required from the shareholders, is there any reason to expect such a guarantee could not/would not be provided?

Response:

NBHDL's shareholder has not provided comments on this hypothetical question, therefore NBHDL cannot speculate on an answer.

REVENUE DEFICIENCY

Question #26

Reference: i) Exhibit 6, page 3

- a) Based on the responses to the first round of interrogatories from all parties please prepare a schedule that sets out all the adjustments/revisions that North Bay has acknowledged as being required to the currently requested 2010 revenue requirement and the impact of each. For each revision, please provide a cross reference to the relevant interrogatory response.

Response:

Please refer to Board Staff interrogatory # 27.

RATE DESIGN

Question #27

Reference: Exhibit 8, page 2

- a) Please reconcile the proposed revenue by customer class and the total 2010 revenue reported here with the expected values reported in Table 8-16.

Response:

The expected values reported in Table 8-16 include \$21,565 in projected low voltage distribution rates. Low voltage revenue is not included in NBHDL's base revenue requirement as shown in Tables 8-1 and 8-2.

Question #28

Reference: Exhibit 8, page 3

- a) Please provide a schedule that sets out the derivation of the fixed and variable revenue by customer class reported in Table 8-4, including the volumes and rates used for each class.

Response:

The following schedule sets out the derivation of the fixed and variable revenue by customer class reported in Table 8-4, including the volumes and rates used for each class.

Rate Classification	Annual kWh	Annual kW For Dx	Annualized Customers	Annualized Connections	2009 Approved Fixed Rates	2009 Approved Variable Rates	2010 Fixed Base Revenue	2010 Variable Base Revenue	Transformer Allowance	2010 Adjusted Variable Rates	2010 Total Base Revenue with 2009 Approved Rates
Residential	214,191,103		252,909		12.53	0.0112	3,168,951	2,398,940	-	2,398,940	5,567,891
GS<50 kW	84,727,250		31,747		21.70	0.0139	688,917	1,177,709	-	1,177,709	1,866,626
GS>50kW	220,909,973	636,802	3,442		311.40	2.1783	1,071,891	1,387,145	58,777	1,328,368	2,400,259
GS 3000-5000 kW	40,318,944	77,038	22		2,399.29	0.7321	53,397	56,400	46,223	10,177	63,573
Sentinel Lighting	516,493	1,411		6,136	1.98	6.9018	12,150	9,737	-	9,737	21,888
Street Lighting	2,737,123	7,702		68,180	0.44	2.3570	29,999	18,154	-	18,154	48,153
USL	337,792		252		21.75	0.0139	5,481	4,695	-	4,695	10,176
Total	563,738,678	722,953	288,373	74,316			5,030,786	5,052,780	105,000	4,947,780	9,978,566

- b) Please provide a schedule that sets out the current (2009) LV adder by rate class.

Response:

NBHDL does not currently have a LV adder in the rates.

Question #29

Reference: Exhibit 8, Appendix 8-C

- a) The proposed 2010 rates for some classes (e.g. Residential, GS<50 and USL) do not include a specific line item for the "Low Voltage Cost Rate Rider". Please explain why.

Response:

The proposed 2010 rates for Residential, GS<50 and USL did not include a specific line item due to rounding in the rate design model. Exhibit 8 Table 8 does include a rate rider for each of these classes.

NBHDL will ask for Board approval for a 5 decimal rate instead of the standard 4 decimal rate.

The following revised bill impacts would be applicable if the Board approves a 5 decimal rounding as explained above:

RESIDENTIAL										
		2009 BILL			2010 BILL			IMPACT		
		Volume	RATE \$	CHARGE \$	Volume	RATE \$	CHARGE \$	\$	%	% of Total Bill
Consumption	Monthly Service Charge			12.53			14.84	2.31	18.44%	14.56%
800 kwh	Distribution (kWh)	800	0.0112	8.96	800	0.0133	10.67	1.71	19.11%	10.47%
	Smart Meter / Storm Rider (per month)			2.11			1.47	(0.64)	(30.33%)	1.44%
	LRAM & SSM Rider (kWh)	800	0.0000	0.00	800	0.0004	0.32	0.32	100.00%	0.31%
	Regulatory Assets (kWh)	800	0.0000	0.00	800	0.0004	0.33	0.33	100.00%	0.33%
	Sub-Total - Distribution	23.60			27.64			4.04	17.11%	27.11%
	RTSR - Network	831	0.0052	4.32	838	0.0053	4.43	0.11	2.44%	4.34%
	RTSR - Connection	831	0.0047	3.91	838	0.0048	4.05	0.14	3.62%	3.97%
	Sub-Total - Delivery	31.83			36.11			4.28	13.46%	35.42%
	Wholesale Market Rate	831	0.0065	5.40	838	0.0065	5.45	0.05	0.90%	5.35%
	DRC	800	0.0070	5.60	800	0.0070	5.60	0.00	0.00%	5.49%
	Cost of Power Commodity (kWh)	600	0.0570	34.20	600	0.0570	34.20	0.00	0.00%	33.55%
	Cost of Power Commodity (kWh)	231	0.0660	15.24	238	0.0660	15.74	0.49	3.24%	15.43%
	Sub-Total - Other Charges	92.27			97.09			4.83	5.23%	95.24%
	GST		5.00%	4.61		5.00%	4.85	0.24	5.23%	4.76%
	TOTAL BILL	96.88			101.95			5.07	5.23%	100.00%

GENERAL SERVICE < 50 KW										
		2009 BILL			2010 BILL			IMPACT		
		Volume	RATE \$	CHARGE \$	Volume	RATE \$	CHARGE \$	Change \$	Change %	% of Total Bill
Consumption	Monthly Service Charge			21.70			25.70	4.00	18.43%	10.20%
2,000 kWh	Distribution (kWh)	2,000	0.0139	27.80	2,000	0.0165	33.08	5.28	18.99%	13.13%
	Smart Meter / Storm Rider (per month)			2.11			1.47	(0.64)	(30.33%)	0.58%
	LRAM & SSM Rider (kWh)	2,000	0.0000	0.00	2,000	0.0002	0.40	0.40	100.00%	0.16%
	Regulatory Assets (kWh)	2,000	0.0000	0.00	2,000	0.0004	0.79	0.79	100.00%	0.31%
	Sub-Total - Distribution	51.61			61.44			9.83	19.05%	24.39%
	RTSR - Network	2,077	0.0048	9.97	2,096	0.0049	10.21	0.24	2.44%	4.05%
	RTSR - Connection	2,077	0.0042	8.72	2,096	0.0043	9.04	0.32	3.62%	3.59%
	Sub-Total - Delivery	70.31			80.69			10.39	14.78%	32.03%
	Wholesale Market Rate	2,077	0.0065	13.50	2,096	0.0065	13.62	0.12	0.90%	5.41%
	DRC	2,000	0.0070	14.00	2,000	0.0070	14.00	0.00	0.00%	5.56%
	Cost of Power Commodity (kWh)	750	0.0570	42.75	750	0.0570	42.75	0.00	0.00%	16.97%
	Cost of Power Commodity (kWh)	1,327	0.0660	87.60	1,346	0.0660	88.84	1.24	1.41%	35.27%
	Sub-Total - Other Charges	228.16			239.91			11.75	5.15%	95.24%
	GST		5.00%	11.41		5.00%	12.00	0.59	5.15%	4.76%
	Total Bill	239.57			251.90			12.33	5.15%	100.00%

Unmetered Scattered

		2009 BILL			2010 BILL			IMPACT		
		Volume	RATE \$	CHARGE \$	Volume	RATE \$	CHARGE \$	\$	%	% of Total Bill
Consumption	Monthly Service Charge			21.75			25.70	3.95	100.00%	17.94%
1,000 kWh	Distribution (kWh)	1,000	0.0139	13.90	1,000	0.0221	22.14	8.24	59.28%	15.46%
	Low Voltage Rider (kWh)	1,000	0.0000	0.00	1,000	0.00004	0.04	0.04	100.00%	0.02%
	LRAM & SSM Rider (kWh)	1,000	0.0000	0.00	1,000	0.0024	2.40	2.40	100.00%	1.68%
	Regulatory Assets (kW)	1,000	0.0000	0.00	1,000	0.0003	0.26	0.26	0.00%	0.18%
	Sub-Total - Distribution			35.65			50.53	14.88	41.75%	0.35
	RTSR - Network	1,039	0.0048	4.99	1,048	0.0049	5.11	0.12	2.44%	3.57%
	RTSR - Connection	1,039	0.0042	4.36	1,048	0.0043	4.52	0.16	3.62%	3.16%
	Sub-Total - Delivery			45.00			60.16	15.16	33.70%	42.01%
	Wholesale Market Rate	1,039	0.0065	6.75	1,048	0.0065	6.81	0.06	0.90%	4.76%
	RRRP	0	0.0000	0.00	0	0.0000	0.00	0.00	0.00%	0.00%
	DRC	1,000	0.0070	7.00	1,000	0.0070	7.00	0.00	0.00%	4.89%
	Cost of Power Commodity (kWh)	750	0.0570	42.75	750	0.0570	42.75	0.00	0.00%	29.85%
	Cost of Power Commodity (kWh)	289	0.0660	19.05	298	0.0660	19.67	0.62	3.24%	13.73%
	Sub-Total - Other Charges			120.55			136.39	15.84	13.14%	95.24%
	GST		5.00%	6.03		5.00%	6.82	0.79	13.14%	4.76%
	TOTAL BILL			126.58			143.21	16.63	13.14%	100.00%

- b) If necessary, please revise the bill impact calculations set out in Appendix 8-A. What is the basis for the Hydro One Networks' rates used on page 9?

Response:

NBHDL followed the Revision to Guideline G-2008-001 – Electricity Distribution Retail Transmission Service Rates issued July 21, 2009 to be used for 2010 rate applications. NBHDL did a variance analysis of the deferral accounts using two years of actual data and examined the trends. The proposed retail transmission rates include an adjustment to maintain the balance of the deferral accounts at a reasonable level.

LRAM/SSM

Question #30 – Updated February 5, 2010

References: Exhibit 10, pages 10 and 13 - Table 3;
Exhibit 10, Appendix B, page 7 Table 2

Preamble: The Application states:

"The total LRAM amount for the period 2005 to 2008 is \$321,318 calculated as the sum of the products of the CDM related load reductions and the corresponding variable rates by class. The total after-tax SSM amount, calculated in accordance with the Guidelines is \$124,447. The carrying charges as per section 3.3 total \$17,237."

- a) Provide a schedule for the *Residential Sector and GS<50 kW* CDM programs that breaks down by measure the components of the as fled LRAM claim and the total kWh and kW for each year 2005-2009 (including showing separately carry forward of prior years' savings)
- i. Third tranche Programs
 - ii. OPA Funded programs
 - iii. Other e.g. Post third tranche Rate funded programs

Include for each measure the number of participants and the kWh saved (gross and net) and free ridership assumptions.

Response:

NBHDL would like to clarify that the LRAM (and SSM) values in Exhibit 10 were based on Third Tranche programs for the years 2005 to 2008 inclusive, OPA programs delivered in 2006 and 2007, LRAM recovery to the end of 2009 and carrying charges to September 30, 2009.

NBHDL notes that the filing guidelines did not specify that CDM programs be broken down by measure however NBHDL has provided this detailed information where feasible.

Please refer to question 30 c) for the tables providing the breakdown by measure and program type. These tables are referenced as follows:

- i. Third Tranche Programs
 - "Input to Table 4 Question 30c) - As Filed Demand Reduction Residential Third Tranche Results"
 - "Input to Table 4 Question 30c) - As Filed Residential Third Tranche Results"
 - "Input to Table 4 Question 30c) - As Filed General Service <50 kW Third Tranche Results"
 - ii. OPA Funded Programs
 - "Input to Table 4 Question 30c) - As Filed OPA Conservation Results for 2006 and 2009"
- b) Provide a Schedule that provides the details of the calculation of the SSM claim for the Residential and GS<50 kw classes. Reconcile to Exhibit 10 Table 6.

Response:

Please refer to Appendix C for the tables that provide the details of the calculation of the SSM claim for the Residential and GS<50 kW classes.

- c) Provide a reconciliation of the Residential and GS<50 kW Sectors kWh savings and LRAM amounts in the Schedules in the responses to parts a and b with those shown in Exhibit 10, page 16, Table 4.

Response:

Please refer to Appendix D for the reconciliation of the Residential and GS<50 kW Sectors kWh savings and LRAM.

- d) Based on Exhibit 10, Table 5, provide the as filed Carrying Cost Calculation/Schedule for the Residential and GS<50kW classes LRAM and (Separately) SSM claim.

Response:

The following table provides the as filed Carrying Cost Calculation / Schedule for the Residential and GS<50kW classes LRAM and SSM claim.

Table 5 -- Response to Question 30 (d)									
Carrying Charges -- LRAM									
	Q4 2005	Thirld 2006	Sixth 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Total
	7.25%	7.25%	4.14%	4.59%	4.59%	4.59%	4.59%	4.59%	
3rd Tranche Residential	\$36.38	\$289.70	\$82.71	\$137.56	\$137.56	\$340.87	\$340.87	\$340.87	\$1,706.53
OPA Residential	\$0.00	\$263.08	\$75.12	\$124.92	\$124.92	\$447.13	\$447.13	\$447.13	\$1,929.44
General Service < 50 kW	\$1.07	\$30.65	\$8.75	\$14.55	\$14.55	\$86.70	\$86.70	\$86.70	\$329.67
Total All Classes	\$39.19	\$651.00	\$185.87	\$309.11	\$309.11	\$1,013.66	\$1,013.66	\$1,013.66	\$4,535.27
	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	
	5.14%	5.14%	4.08%	3.35%	3.35%	2.45%	1.00%	0.55%	
3rd Tranche Residential	\$381.72	\$906.72	\$719.73	\$590.96	\$590.96	\$711.50	\$290.41	\$159.72	\$4,351.72
OPA Residential	\$500.71	\$949.50	\$753.69	\$618.84	\$618.84	\$672.63	\$274.54	\$151.00	\$4,539.77
General Service < 50 kW	\$97.09	\$294.54	\$233.80	\$191.97	\$191.97	\$243.52	\$99.40	\$54.67	\$1,406.95
Total All Classes	\$1,135.13	\$2,652.28	\$2,105.31	\$1,728.63	\$1,728.63	\$2,053.12	\$838.01	\$460.90	\$12,702.00
	Total Residential Third Tranche Carrying Charges								\$6,058.25
	Total Residential OPA Carrying Charges								\$6,469.21
	Total Residential Carrying Charges								\$12,527.45
	Total General Service < 50 kW Carrying Charges								\$1,736.61
	Total General Service > 50 kW, Unmetered Scattered Load and Intermediate Carrying Charges								\$2,973.21
	Total Carrying Charges								\$17,237.28

- e) Provide a schedule that shows the derivation of the Residential and GS<50kW Rate Riders based on the kWh savings breakdown and carrying costs provided in response to parts a)-d) of this IR. Reconcile this with Exhibit 10, Table 7.

Response:

The schedule on the following page shows the derivation of the Residential and GS<50kW Rate Riders based on the kWh savings breakdown and carrying costs provided in response to parts a)-d) of this IR.

Table 7 -- Response to Question 30 (e)													
LRAM and SSM Total Amounts and Rate Riders by Class													
One Year and Three Year Recovery													
Rate Class	Third Tranche Amounts (2005 OPA amounts (2006 and 2007) to 2008);				2010		One Year Rate Rider	Three Year Rate Rider	One Year Rate Rider	Three Year Rate Rider	One Year Rate Rider	Three Year Rate Rider	
	LRAM	LRAM	LRAM	SSM									
	Foregone Revenue 2005 to 2009 \$	Carrying Charges \$ to Sept. 30, 2009	Total LRAM \$	\$	Weather Normalized Load forecast	kWh or kW	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)
3rd Tranche Residential	111,266	6,058	117,325	N/A	214,191,103	kWh	0.000548	0.000183	N/A	N/A	N/A	N/A	N/A
OPA Residential	104,446	6,469	110,916	N/A	214,191,103	kWh	0.000518	0.000173	N/A	N/A	N/A	N/A	N/A
Total Residential	215,713	12,527	228,240	44,289	214,191,103		0.001066	0.000355	0.000207	0.000069	0.001272	0.000424	
General Service < 50 kW	38,420	1,737	40,157	14,394	84,727,250	kWh	0.000474	0.000158	0.000170	0.000057	0.000644	0.000215	
Unmetered Scattered Load (USL)	1,656	73	1,729	745	337,792	kWh	0.005118	0.001706	0.002206	0.000735	0.007324	0.002441	
General Service > 50 kW	65,402	2,895	68,297	61,382	636,802	kW	0.107250	0.035750	0.096391	0.032130	0.203641	0.067880	
Intermediate	127	6	133	3,636	77,038	kW	0.001725	0.000575	0.047203	0.015734	0.048928	0.016309	
Total	321,318	17,237	338,556	124,447									

- f) Update Exhibit 10, Table 8 as required to show the as filed bill impacts for the Residential and GS<50 kW classes

Response:

Table 8 below has been updated to show the as filed bill impacts for the Residential and GS<50 kW classes.

Table 8 -- Response to Question 30 (f)				
LRAM and SSM Rate Impacts				
Standard Consumption per Month	% Change Variable Rate	% Change Distribution Cost	% Change Total Bill	Average Monthly Increase in Total Bill \$
Residential				
1000 kWh	3.79%	1.67%	0.38%	\$0.45
General Service < 50 kW				
2000 kWh	1.54%	0.84%	0.19%	\$0.45
Unmetered Scattered Load				
1000 kWh	17.56%	6.80%	2.01%	\$2.56
General Service > 50 kW				
100,000 kWh and 275 kW	3.12%	2.05%	0.18%	\$19.60
Intermediate				
1,600,000 kWh and 3100 kW	2.23%	1.78%	0.04%	\$52.56

Question #31 – Updated February 5, 2010

Reference: Exhibit 10, page 4/5

Preamble: The Application states:

“On March 28, 2008 the Board issued a document under the name of Guidelines for Electricity Distributor Conservation and Demand Management EB-2008-0037 (the “Guidelines”). The Guidelines replace the policies and guidelines previously issued by the Board in respect of CDM activities by electricity distributors as articulated in the following documents:

- the Framework Report
- the Total Resource Cost Guide issued in September 2005; and
- the portions of the “Filing Requirements for Transmission and Distribution Applications” that pertain to CDM-related applications”

- a) Does NBHDL agree that the OEB Guidelines Section 7.5 indicate that savings and LRAM claims should be based on the “Best Available” input assumptions at the time that the LRAM claim was prepared?

Response:

Please refer to Board Staff Interrogatory 26 (a) and 26 c).

- b) Is NBHDL aware that on January 29, 2009, The Board issued a letter to all distributors that inter- alia adopted the OPA 2008/2009 Measures and Input Assumptions as the main source of input assumptions for LRAM/SSM claims.

Response:

NBHDL is aware of the January 29, 2009 letter from the Board on Measures and Input Assumptions

- c) Does NBHDL agree that in the case of 3rd tranche and other rate funded programs, the estimation of 2005 -2008 kWh savings, means using the best available input assumptions, which are those of the OPA 2008/2009 Measures and Input Assumptions List? If not explain why not.¹

Response:

- Please refer to Board Staff Interrogatory 26 a) and b).
- d) Confirm whether the independent review of 2009 lost revenue associated with 2005 -2008 Third Tranche and post-Third Tranche Program savings used the latest OPA Measures and Assumptions input assumptions for residential mass market measures and Affordable/Social housing (notably CFLs, Low Flow Showerheads, SLEDs and PTs) as demonstrated in the following OPA documents:
- i. OPA 2007 EKC Program Calculator and/or
 - ii. OPA 2008/2009 Measures and Assumptions list (now adopted by the OEB)

Response:

As per Board Staff Interrogatories 26 (a) and 26 (c), NBHDL did not use the latest OPA Measures and assumptions. In response to Board Staff Interrogatory 26 (b), NBHDL re-calculated energy savings for the OPA programs for the years 2006 and 2007.

- e) Provide details of the adjustments that the independent review made to the 2005-2008 input values used in the NBHDL Annual reports, in particular any adjustments to the above measures.

¹ See Board Decision EB-2009-0158 EB-2009-0192 Horizon Utilities

Response:

The details of the changes were covered under section 1.4 of Exhibit 10.

- f) Provide a Copy of the 2006 and 2007 OPA Every Kilowatt Counts Program Calculators.

Response:

Please refer to Board Staff Interrogatory 26 (b).

- g) Confirm whether NBHDL reported to the OPA on the 2006 and 2007 EKC campaigns using Mass Market measures assumptions (particularly CFLs, SLEDs and PTs) specified in the OPA 2006 and 2007 EKC Program Calculators

Response:

Please refer to Board Staff Interrogatory 26 (b).

- h) Confirm whether the 2006-2007 LRAM claim for OPA programs is based on the OPA 2008 Measures and Input assumptions for CFLs, Low Flow Showerheads, SLEDs and PTs.or the 2006 and 2007 EKC calculators. If not explain clearly in detail the basis of this portion of the claim.

Response:

Please refer to Board Staff Interrogatory 26 (b).

- i) With respect to the SSM Claim, does NBHDL agree that the Board's Guidelines indicate that Assumptions used from the beginning of any year will be those assumptions in existence in the immediately prior year. For example, if any input assumptions change in 2007, those changes should apply for SSM purposes from the beginning of 2008 onwards until changed again.

Response:

NBHDL believes this question is the same as 31(b). NBDHL has stated in 31 b) that it is aware of the January 29, 2009 letter from the Board on Measures and Input Assumptions.

Question #32 – Updated February 5, 2010

References: Exhibit 10, page 22 and Appendix A and C:
Exhibit 10, Appendix B - Bob Mason and Associates Report

Preamble: The Application states:

“As per section 3.2.2 of the Guideline completed “Input Assumptions” are included in Appendix 10-C. The templates included in the 2008 Annual Report are duplicated with some changes and new ones developed for the years 2005 through 2007. Each of the input assumption is a Custom Project thus the free ridership is 30%. NBHDL utilized the inputs and assumptions provided by the Board for all measures including proxies. The remainders are Custom Projects which normally include proxies as part of the justification.”

- a) Provide a Table in the format below that shows for each of the Residential and GS<50kW Programs for each year, which source(s) of input assumptions underpin the claimed kWh and kW savings. (*Note entries below are illustrative only*). Indicate for OPA- Funded Programs whether the 2007 Every Kilowatt Counts (EKC) Calculator or the OPA Measures and Assumptions List for 2008 was used.

LRAM Claim	Third tranche Incl. 2006 Carryover	Other Rate funded	OPA Funded	Verification(s)
2005	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2006	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2007	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2008	OPA Measures	OPA Measures	OPA Measures	Bob Mason & Associates
SSM Claim				
2006	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2006	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2007	OEB Guide	OEB Guide	OPA EKC Calculator	Bob Mason & Associates
2008	OPA Measures	OEB Guide	OPA Measures	Bob Mason & Associates

Response:

For both LRAM and SSM claims for Third Tranche, the OEB Guide was used for 2005 through 2008. For OPA funded programs, the measures provided by the OPA were used for the years 2006 and 2007. As per questions 31(f), 31 (g) and 31 (h), please refer to Board Staff Interrogatory 26 (b).

Bob Mason & Associates conducted the third party review and this review was submitted as part of Board Staff Interrogatory 26 (c). This review focused primarily on the years 2007 and 2008 as per the section 7.5 of the Guidelines. In addition it made comments on 2005 and 2006 Third Tranche as well as the OPA programs for 2006.

- b) Based on the templates in Appendix A and Appendix C Provide a summary by measure **by year** of the input assumptions used to prepare the Residential and GS<50kW kWh and kW load impacts and associated LRAM and SSM claims. In particular provide the detailed input assumptions for all mass market measures including CFLs, showerheads, pipe wrap aerators, SLEDs and PTs.
- i. kWh and kW savings
 - ii. Free ridership
 - iii. Cost of measure
 - iv. Measure life
 - v. Source(s)/authority(ies) for assumption(s)

Response:

Please refer to the answers to 30 a) and 30 c).

- c) Provide a Copy of the Bob Mason and Associates Final Report.

Response:

Please refer to Board Staff Interrogatory 26 c).

Question #33 – Updated February 5, 2010

Reference: Exhibit 10 Appendices A, B and C

- a) Confirm/correct/complete the following Input Assumptions and kWh savings Comparison Table (based on Exhibit 10, Tables 2 and 3 and Appendices A, B and C in the format below for Residential Mass Market measures and Social Housing. *Include any missing programs related to CFLs, Showerheads, Aerators, Pipe wrap, PTs and Seasonal Lights: NOTE VALUES ARE ILLUSTRATIVE ONLY -USE ACTUAL DATA*

Program	Efficient Measure	Participants As filed	As Filed unit kw savings assumption	As filed Free Ridership	Net Kwh Per Filed LRAM Claim	OPA <u>2007</u> EKC Calc or 2008 Measures List	Free Ridership	Adjusted Net kwh OPA 2008 Measures List
2005								
Residential 3rd Tranche								
Water Heater tune up	CFLs 13/15w	1320	106.7	10%		43	30%	
	Tank Wrap	448						
	Aerators	416						
	Showerheads	315						
	Pipe Wraps	587						
Residential 3rd Tranche TOTAL 2005 kwh								
2006								
Residential Third Tranche	CFLs 13/15w		106.7	10%		43	30%	
OPA EKC Spring	E Star CFI 15w		104	10%		43	30%	
	PTs		216	10%		159	10%	
OPA EKC Fall	E Star CFI 15w		104	10%		43	30%	
	PTs		216	10%		55	54%	
OPA EKC Fall	SLED Xmas Lights		45	5%		43	30%	
OTHER	CFLs							
GS<50kw								
Third Tranche Social Housing	CFLs 13/15w		106.7	10%		43	30%	
OPA Affordable/Social Housing	CFLs 13/15w		106.7	10%		43	30%	
Residential 3rd Tranche TOTAL 2006 kwh								
GS<50kw 3rd Tranche TOTALkwh								
OPA Programs								

TOTAL2006 kwh								
2007								
Third Tranche	13/15 watt CFL		109.0	10%		43	30%	
EKC 2007	E Star CFL 15w		43	30%		43	30%	
	E Star CFL 20w+		62	22%		43	30%	
Cool Savings	PTs		55	54%		55	64%	
OTHER	CFLs							
Residential 3 rd Tranche								
TOTAL 2007 kwh								
GS<50kw								
Third Tranche Social Housing	CFIs 13/15w		106.7	10%		43	30%	
OPA Affordable/Social Housing	CFIs 13/15w		106.7	10%		43	30%	
3 rd tranche GS<50kw TOTAL 2007 kwh								
OPA Programs TOTAL2007 kwh								
2008								
Residential								
Third Tranche	CFIs 13/15w		106.7	10%		43	30%	
Third Tranche Social Housing	CFIs 13/15w							
OTHER	CFLs							
Residential 3 rd Tranche								
TOTAL 2008 kwh								
3 rd tranche GS<50kw TOTAL 2008 kwh								
TOTAL Residential 3 rd Tranche CUMULATIVE KWH SAVINGS								
TOTAL GS<50kw 3 rd Tranche CUMULATIVE KWH SAVINGS								
TOTAL Residential OPA CUMULATIVE KWH SAVINGS								
TOTAL GS<50kw OPA CUMULATIVE KWH SAVINGS								

Response:

The response to this question is developed from the response to questions 30 (a) and 33 (b).

Please see Appendix E for the completed Input Assumptions and the Comparison Table.

- b) Provide a revised version of the schedules for third tranche and other rate funded CDM provided in response to VECC IR #30 parts a) and b) adjusted to reflect the OPA 2008/2009 measures and input assumptions list for CFLs and PTs provided in part a) of this IR.

Response:

NBHDL has only responded to this question related to LRAM, thus does not include any reference to question 30 (b).

Please see Appendix F for revised versions of the schedules for third tranche and other rate funded CDM.

- c) Adjust the as filed Carrying costs to reflect the revised LRAM amounts resulting from the answer to part b.

Response:

The following table shows the adjusted as filed Carrying costs to reflect revised LRAM amounts resulting from the answer to part b. The Carrying Costs filed applied only to LRAM.

OPA Table 5 -- Response to Question 33 (c)									
Carrying Charges -- LRAM									
	Q4 2005	Third 2006	Sixth 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007	Q3 2007	Total
	7.25%	7.25%	4.14%	4.59%	4.59%	4.59%	4.59%	4.59%	
3rd Tranche Residential	\$25.78	\$202.57	\$57.84	\$96.19	\$96.19	\$238.03	\$238.03	\$238.03	\$1,192.64
OPA Residential	\$0.00	\$87.91	\$25.10	\$41.74	\$41.74	\$199.67	\$199.67	\$199.67	\$795.52
General Service < 50 kW	\$1.07	\$30.65	\$8.75	\$14.55	\$14.55	\$86.70	\$86.70	\$86.70	\$329.67
Total All Classes	\$28.59	\$388.69	\$110.98	\$184.56	\$184.56	\$663.36	\$663.36	\$663.36	\$2,887.47
	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	
	5.14%	5.14%	4.08%	3.35%	3.35%	2.45%	1.00%	0.55%	
3rd Tranche Residential	\$266.55	\$602.22	\$478.03	\$392.50	\$392.50	\$463.76	\$189.29	\$104.11	\$2,888.96
OPA Residential	\$223.60	\$488.86	\$388.04	\$318.61	\$318.61	\$363.33	\$148.30	\$81.56	\$2,330.92
General Service < 50 kW	\$97.09	\$294.54	\$233.80	\$191.97	\$191.97	\$243.52	\$99.40	\$54.67	\$1,406.95
Total All Classes	\$742.85	\$1,887.13	\$1,497.96	\$1,229.94	\$1,229.94	\$1,496.08	\$610.65	\$335.86	\$9,030.40
Total Residential Third Tranche Carrying Charges									\$4,081.60
Total Residential OPA Carrying Charges									\$3,126.44
Total Residential Carrying Charges									\$7,208.04
Total General Service < 50 kW Carrying Charges									\$1,736.61
Total General Service > 50 kW, Unmetered Scattered Load and Intermediate Carrying Charges									\$2,973.21
Total Carrying Charges									\$11,917.86

- d) Provide a Summary table showing the Third tranche and OPA KWh Load Impacts and LRAM amounts for the as filed and revised claim based on the response to parts a-c of this IR

Response:

For reference the kWh Load Impacts were included in Table 3 of Exhibit 10. NBHDL has shown a comparison for the total in the following table:

OPA Table 3 -- Response to Question 33 (d)														
ANNUAL CDM LOAD IMPACTS BY PROGRAM AND CLASS														
	OPA Input Assumptions and Measures										OEB Measures		Difference	
	2005 OPA		2006 OPA		2007 OPA		2008 OPA		Total OPA		"As Filed"		OPA Less "As Filed"	
Rate Class and Program	Gross MWH	Net MWH	Gross MWH	Net MWH	Gross MWH	Net MWH	Gross MWH	Net MWH	Gross MWH	Net MWH	Gross MWH	Net MWH	Gross MWH	Net MWH
Residential (MWH Where 1 MWH = 1000 kWh)														
Water Heater Tune-up	180.6	165.1	99.3	91.3	60.5	56.0			340.4	312.4	591.9	538.7	-251.4	-226.3
Fridge Buy-back	309.4	278.4	107.2	96.5	46.1	41.5			462.6	416.4	590.4	531.4	-127.8	-115.0
EnerGuide for Houses	71.5	51.1	36.3	32.7					107.8	83.8	108.1	97.3	-0.3	-13.5
Information Based			19.4	17.4	250.6	225.5	788.5	691.6	1,038.4	934.6	2,474.7	2,227.3	-1,436.3	-1,292.7
Demand Reduction					409.6	325.7	373.9	336.5	783.5	662.2	522.7	426.1	260.8	236.2
OPA Residential			919.8	643.9	1,595.7	1,120.5	0.0	0.0	2,515.5	1,764.4	3,747.2	2,945.1	-1,231.7	-1,180.7
Sub-Total (MWH)	561.4	494.7	1,182.0	881.8	2,362.6	1,769.2	1,142.4	1,028.2	5,248.4	4,173.9	8,035.1	6,765.9	-2,786.7	-2,592.0
General Service < 50 kW (MWH Where 1 MWH = 1000 kWh)														
Demand Reduction			208.0	187.2	415.7	374.1	481.2	432.4	1,104.9	993.7	876.6	786.6	228.2	207.1
LED Traffic Lights	31.3	28.2			338.2	304.4	42.3	38.0	411.8	370.6	399.0	359.1	12.8	11.5
Sub-Total (MWH)	31.3	28.2	208.0	187.2	753.8	678.5	523.5	470.5	1,516.6	1,364.3	1,275.6	1,145.7	241.0	218.6
Total (MWH)	592.7	522.8	1,390.0	1,069.0	3,116.4	2,447.7	1,665.9	1,498.7	6,765.0	5,538.2	9,310.7	7,911.6	-2,545.7	-2,373.4

This worksheet is the same as Table 3 of Exhibit 10 except it has been updated using the 2008 OPA Measures when available or proxies. Also customer classes other than Residential and GS < 50 kW have been removed from the table. Columns have been added to show the total "As Filed" gross and net kWh values as well as the difference between "As Filed" gross and net kWh values and those calculated using the OPA Inputs Assumptions and Measures. For Residential this calculation shows a decrease of both gross and net MWH and for GS < 50 kW shows an increase of both gross and net MWH

For reference the "As Filed" LRAM recovery is included in response to question 30 (c). NBHDL has shown a comparison for the total in Appendix G. This worksheet is the same as Table 4 in question 30 (c) except it has been updated using the 2008 OPA Measures when available or proxies. Also customer classes other than Residential and GS < 50 kW have been removed from the table. Columns have been added to show the total "As Filed" lost revenue from Table 4 in question 30 (c) as well as the difference between "As Filed" and the revised LRAM calculated using the OPA Inputs Assumptions and Measures.

The total LRAM impact from this methodology for Residential and GS less than 50kW would be a reduction of \$78,701. This methodology results in a decrease to the residential class of \$86,535 and an increase to the GS less than 50kW of \$7,834. NBHDL's response to Board Staff Interrogatory 26 b) should also be referenced.

Question #34 – Updated February 5, 2010

Reference: Exhibit 10, pages 16-20, Tables 4, 5 and 7

- a) Provide the revised kWh, LRAM/ Rate rider calculations using the complete set of updated 2008/2009 OPA assumptions from the 2008/2009 Measures and Assumptions List for the Third Tranche and Post third tranche Residential and GS<50 kW Sector LRAM claim.

Response:

The calculated rate riders are shown below:

OPA Table 7 – Response to Question 34 (a)												
LRAM and SSM Total Amounts and Rate Riders by Class												
One Year and Three Year Recovery												
Rate Class	Third Tranche Amounts (2005 to 2008); OPA amounts (2006 and 2007)				2010		One Year Rate Rider	Three Year Rate Rider	One Year Rate Rider	Three Year Rate Rider	One Year Rate Rider	Three Year Rate Rider
	LRAM	LRAM	LRAM	SSM			LRAM	LRAM	SSM	SSM	Total	Total
	Foregone Revenue 2005 to 2009 \$	Carrying Charges \$ to Sept. 30, 2009	Total LRAM \$	\$	Weather Normalized Load forecast	kWh or kW	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)	\$/unit (kWh or kW)
3rd Tranche Residential	72,392	4,082	76,474	N/A	214,191,103	kWh	0.000357	0.000119	N/A	N/A	N/A	N/A
OPA Residential	56,786	3,126	59,912	N/A	214,191,103	kWh	0.000280	0.000093	N/A	N/A	N/A	N/A
Total Residential	129,178	7,208	136,386	44,289	214,191,103		0.000637	0.000212	0.000207	0.000069	0.000844	0.000281
General Service < 50 kW	46,254	1,737	47,991	14,394	84,727,250	kWh	0.000566	0.000189	0.000170	0.000057	0.000736	0.000245
Unmetered Scattered Load (USL)	1,656	73	1,729	745	337,792	kWh	0.005118	0.001706	0.002206	0.000735	0.007324	0.002441
General Service > 50 kW	65,402	2,895	68,297	61,382	636,802	kW	0.107250	0.035750	0.096391	0.032130	0.203641	0.067880
Intermediate	127	6	133	3,636	77,038	kW	0.001725	0.000575	0.047203	0.015734	0.048928	0.016309
Total	242,617	11,918	254,535	124,447								

This table is identical to the one included in question 30 (e) except that it has been updated using the OPA Inputs Assumptions and Measures.

Compared to the “As Filed”, rate riders decrease for Residential and increase for GS < 50 kW.

- b) Provide Revised Bill impacts using the complete set of updated OPA assumptions from the 2008/2009 Measures List for the Residential Sector LRAM claim.

Response:

The calculated rate impacts are shown in the following table:

OPA Table 8 – Response to Question 34 (b)				
LRAM and SSM Rate Impacts				
Standard Consumption per Month	% Change Variable Rate	% Change Distribution Cost	% Change Total Bill	Average Monthly Increase in Total Bill \$
Residential				
1000 kWh	2.51%	1.10%	0.25%	\$0.30
General Service < 50 kW				
2000 kWh	1.77%	0.96%	0.22%	\$0.52
Unmetered Scattered Load				
1000 kWh	17.56%	6.80%	2.01%	\$2.56
General Service > 50 kW				
100,000 kWh and 275 kW	3.12%	2.05%	0.18%	\$19.60
Intermediate				
1,600,000 kWh and 3100 kW	2.23%	1.78%	0.04%	\$52.56

This table is identical to the one included in question 30 (e) except that it has been updated using the OPA Inputs Assumptions and Measures.

Based on the response to question 34 (a) when compared to “As Filed”, rate impacts decrease for Residential and increase for GS < 50 kW.

Question #35 – Updated February 5, 2010

Reference: Exhibit 10, page 10, Section 1.6

Preamble: The Application states

“The 2006-2008 OPA Conservation Results for NBHDL distributed by the OPA in July 2009 is the source for LRAM recovery for 2006 and 2007. The energy quantities were “final” for 2006 and 2007, but “Preliminary” for 2008. NBHDL has ignored the “Preliminary” results for 2008 but will include them in future LRAM

filings. The NBHDL results were residential for the following programs: Every Kilowatt Counts, Cool Savings Rebate, Secondary Fridge Retirement, Great Refrigerator Roundup, Affordable Housing and Social Housing. The gross kWh savings for 2006 are 2,140,857 and for 2007 1,621,442. These results only pertain to LRAM recovery and are shown in Table 3 of section 2.3.”

- a) Provide a copy (or Summary) of the Residential Sector/Mass market (and If applicable Social Housing Sector) Report(s) that NBHDL provided to OPA, including the detailed breakdown of measures, unit savings, participants and other assumptions.

Response:

These were OPA Programs therefore NBHDL did not provide the OPA any detailed information.

- b) Provide any correspondence and Attachments from OPA confirming its acceptance of the Reports(s).

Response:

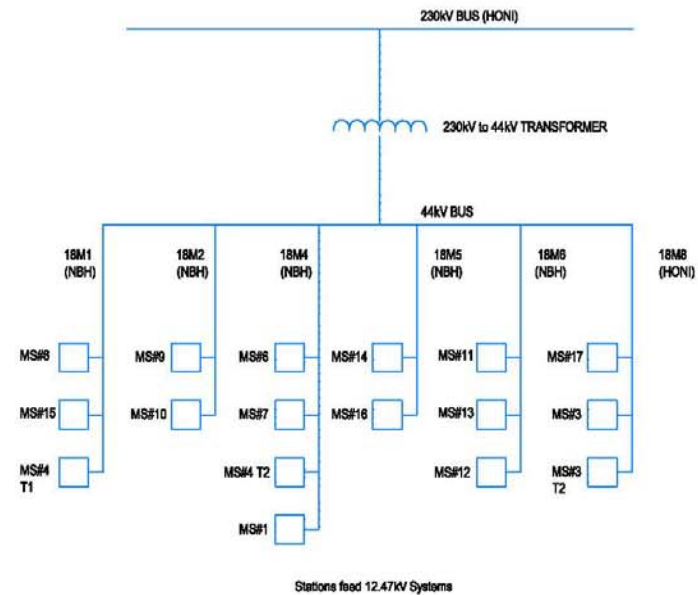
These were OPA Programs thus nothing was sent to NBHDL confirming acceptance.

- c) Provide any correspondence from OPA regarding the 2008 OPA Program results.

Response:

2008 OPA Programs were not part of the NBHDL LRAM recovery.

APPENDIX "A"



APPENDIX "B"

APPENDIX "B"

PROMISSORY NOTE

Amount: Cdn. \$1,332,950.00

Date: February 15, 2002

FOR VALUE RECEIVED North Bay Hydro Services Inc. (the "**Borrower**") promises to pay on demand to North Bay Hydro Distribution Limited (the "**Lender**") the principal amount of **ONE MILLION THREE HUNDRED THIRTY-TWO THOUSAND AND NINE HUNDRED FIFTY DOLLARS** (\$1,332,950) with interest thereon at the rate of five (5%) per cent per annum compounded and payable annually. Such interest to be paid annually on the 31st day of December in each and every year for so long as any amount shall remain outstanding hereunder. Upon demand being made by the Lender hereunder, the Borrower shall forthwith pay to the Lender the outstanding principal balance together with all accrued and unpaid interest due hereunder.

Interest shall be payable at the said rate and in the same manner on any overdue interest payable hereunder if not paid when due, before and after default, maturity and judgment.

Upon default in payment of any principal or interest when due, the entire outstanding principal amount of this Promissory Note, together with all accrued and unpaid interest thereon shall, at the option of the Lender, become immediately due and payable.

The Borrower hereby waives demand and presentment for payment, protest and notice of non-payment and notice of protest and dishonour of this Promissory Note.

This Promissory Note shall be governed by and construed in accordance with laws of the Province of Ontario and the laws of Canada applicable therein.

Appendix “C” – Question 30, part b)

Table 6 -- Response to Question 30(b)					
SSM AMOUNTS BY PROGRAM AND CLASS					
Rate Class and Program	Total Costs \$ (NPV)	Total Benefits \$ (NPV)	Net Benefits \$ (NPV)	Benefit to Cost ratio	SSM Amounts \$ (after Tax)
Residential					
Water Heater Tune-up	73,570	330,521	256,951	4.49	12,848
Fridge Buy-back	52,211	219,311	167,100	4.20	8,355
Energuide for Houses	68,174	99,333	31,159	1.46	1,558
Information Based	359,507	673,119	313,611	1.87	15,681
Demand Reduction	134,263	251,224	116,962	1.87	5,848
Residential Total	687,724	1,573,508	885,784	2.29	44,289
General Service < 50 kW					
Demand Reduction	201,102	381,697	180,595	1.90	9,030
LED Traffic Lights	174,013	281,299	107,286	1.62	5,364
GS < 50 kW Total	375,115	662,996	287,881	1.77	14,394
Unmetered Scattered Load					
LED Traffic Lights	24,169	39,069	14,901	1.62	745
General Service > 50 kW					
Demand Reduction	1,438,307	2,740,633	1,302,326	1.91	65,116
Renewable Energy	86,322	11,637	-74,684	0.13	-3,734
GS > 50 kW Total	1,524,629	2,752,271	1,227,642	1.81	61,382
Intermediate					
Demand Reduction	37,559	110,287	72,728	2.94	3,636
Grand Total	\$2,649,196	\$5,138,132	\$2,488,936	1.94	\$124,447

Input to Table 6 -- As Filed Demand Reduction Residential Third Tranche Results												
Response to Question 30(b)												
Question 30 (b) Third Tranche Residential Reconciled to Table 6 of Exhibit 10	Total Summer Peak kW Savings per Annum	Total Winter Peak kW Savings per Annum	Total Energy Savings per Annum (kWh)	Total Energy Savings per Annum (kWh)	Total Energy Savings per Annum (kWh)	Total Benefits \$ (NPV)	Equipment Costs (Net of Free Riders)	Total Utility Program Costs	Total Costs \$ (NPV)	Net Benefits \$ (NPV)	Benefit to Cost ratio	SSM Amounts \$ (after Tax) From Table 6
Question 30(b)	Gross	Gross	Gross	Gross	Net							
Water Heater Tune-up (2005 through 2008)												
2005	10,482	97,641	306,238	278,247	172,840	11,737	34,991	46,627.70	126,211.82	3.71		6,310.59
2006	8,788	34,238	181,805	165,555	96,550	5,864	13,049	18,912.66	77,637.47	5.11		3,881.87
2007	5,850	19,322	103,842	94,942	61,131	3,716	3,121	6,836.52	54,294.72	8.94		2,714.74
2008	0.000	0.000	0	0	0	0	1,193	1,192.66	-1,192.66	0.00		-59.63
Total	25,120	151,201	591,884	538,744	330,521	21,317	52,253	73,569.54	256,951.35	4.49		12,847.57
Fridge Buy-back (2005 through 2008)												
2005	89,587	94,653	394,800	355,320	143,025	0	18,658	18,658.01	124,367.28	7.67		6,218.36
2006	31,042	32,798	136,800	123,120	54,444	2,474	23,682	26,155.66	28,288.22	2.08		1,414.41
2007	13,343	14,097	58,800	52,920	21,842	2,337	4,242	6,579.74	15,262.22	3.32		763.11
2008	0.000	0.000	0	0	0	0	818	817.56	-817.56	0.00		-40.88
Total	133,972	141,548	590,400	531,360	219,311	4,811	47,400	52,210.97	167,100.17	4.20		8,355.01
Energuide for Houses 2005 through 2008												
2005	0.000	57,513	71,777	64,599	60,727	19,586	281	19,867.20	40,859.96	3.06		2,043.00
2006	0.000	29,122	36,344	32,710	38,605.912	11,880.000	35,340.933	47,220.93	-8,615.02	0.82		-430.75
2007	0.000	0.000	0	0	0	0	914	914.30	-914.30	0.00		-45.72
2008	0.000	0.000	0	0	0	0	172	171.50	-171.50	0.00		-8.58
Total	0.000	86,635	108,121	97,309	99,333	31,466	36,708	68,173.94	31,159.14	1.46		1,557.96
Information Based 2005 through 2008												
2005	0.000	0.000	0	0	0	0	0	44,166	44,166.00	-44,166.00	0.00	-2,208.30
2006	0.000	10,125	46,980	42,282	11,633	810	9,115	9,924.89	1,707.95	1.17		85.40
2007	0.000	134,517	561,933	505,740	193,039	12,240	115,758	127,998.38	65,040.81	1.51		3,252.04
2008	0.000	402,120	1,865,837	1,679,253	484,616	20,470	156,668	177,137.81	287,477.81	2.62		14,373.89
Total	0.000	546,762	2,474,750	2,227,275	669,288	33,520	325,707	359,227.08	310,060.57	1.86		15,503.03
Demand reduction 2005 through 2008												
2005	0	0	0	0	0	0	0	0	0	0		0
2006	0	0	0	0	0	0	0	0	0	0		0
2007	44,982	161,289	330,395	253,008	201,216	101,067	13,966	115,033	86,184	1.75		4,309.19
2008	0.157	54,188	192,312	173,081	50,099	17,723	1,271	18,994	31,105	2.64		1,555.25
Total	45,139	215,477	522,707	426,089	251,315	118,790	15,237	134,027	117,289	1.88		5,894.45
Total Residential 2005 through 2008												
2005	100,069	249,807	772,815	698,166	376,592	31,323	97,996	129,319	247,273			12,364
2006	39,830	106,283	401,929	363,666	201,233	21,028	81,187	102,214	99,019			4,951
2007	64,175	329,226	1,054,970	906,611	477,229	119,359	138,002	257,361	219,867			10,993
2008	0.157	456,308	2,058,149	1,852,334	514,715	38,193	160,121	198,314	316,401			15,820
Total	204,231	1,141,624	4,287,862	3,820,777	1,569,768	209,903	477,305	687,208	882,560			44,128

Note: Quantities didn't quite balance for Demand Reduction and Information Based Resulting in a difference in recovery of \$161
The energy quantities are correct but the TRC one customer was reported against GS-50 kW instead of residential.

Input to Table 6 -- As Filed Demand Reduction Residential Third Tranche Results													
Response to Question 30(b)													
Question 30 (b)Third Tranche GS<50 kW Reconciled to Table 6 of Exhibit 10	Customer Class	Calculated Energy Savings from TRC	Calculated Summer Peak (kW) from TRC	Calculated Winter Peak (kW) from TRC	Initial Energy Savings (Life Cycle)	TRC Program Benefits (Net of Free Riders)	Utility Program Cost (Total TRC Costs)	TRC Participant Cost	Total TRC Cost	Net TRC Cost	TRC Benefit/TR C Cost	SSM Amounts \$ (after Tax)	
	Question 30(b)												
	Total GS<50 kW Projects Reported	0	0	0	0	\$0	\$0	\$0	\$0	\$0	#DIV/0!	\$0	
	2006 GS<50 kW Projects Completed												
	46	GS<50 kW	62,888	14.14	14.88	331,651	\$23,630.88	\$9,056	\$14,104.80	\$23,161	\$470	1.02	\$23
	47	GS<50 kW	47,421	9.82	10.33	308,360	\$20,617.14	\$6,829	\$12,841.20	\$19,670	\$947	1.05	\$47
	48	GS<50 kW	6,200	1.33	1.40	31,000	\$2,243.52	\$893	\$1,890.00	\$2,783	\$-539	0.81	\$-27
	51	GS<50 kW	19,967	4.73	4.99	213,916	\$12,247.01	\$2,875	\$13,440.49	\$16,316	\$-4,069	0.75	\$-203
	4	GS<50 kW	8,520	1.08	1.14	50,220	\$2,860	\$1,227	\$3,274	\$4,501	\$-1,640	0.64	\$-82
	5	GS<50 kW	9,711	1.21	1.28	52,458	\$3,086	\$1,398	\$3,296	\$4,695	\$-1,609	0.66	\$-80
Total GS<50kW Projects Completed -- 2006		154,708	32.30	34.01	987,605	\$64,685	\$22,279	\$48,846	\$71,126	\$-6,441	0.91	\$-322	
2007 GS<50kW Projects Completed													
52	GS<50 kW	110,310	13.55	14.27	493,416	\$32,767	\$2,689	\$10,924	\$13,613	\$19,154	2.41	\$958	
54	GS<50 kW	7,072	1.43	1.51	14,144	\$986	\$172	\$80	\$252	\$734	3.91	\$37	
55	GS<50 kW	43,505	4.56	6.54	590,356	\$23,385	\$1,061	\$3,857	\$4,918	\$18,467	4.75	\$923	
56	GS<50 kW	46,209	12.16	12.80	467,418	\$32,224	\$1,126	\$9,641	\$10,767	\$21,457	2.99	\$1,073	
57	GS<50 kW	3,472	0.74	0.78	17,360	\$1,256	\$85	\$1,058	\$1,143	\$113	1.10	\$6	
60	GS<50 kW	6,880	1.35	1.57	82,555	\$5,307	\$168	\$1,494	\$1,662	\$3,646	3.19	\$182	
9	GS<50kW	23,128	1.00	4.51	171,556	\$9,390	\$564	\$2,189	\$2,752	\$6,638	3.41	\$332	
13	GS<50kW	29,810	0.00	6.42	128,490	\$7,381	\$727	\$352	\$1,078	\$6,303	6.84	\$315	
14	GS<50kW	13,830	0.00	2.98	59,610	\$3,424	\$337	\$163	\$500	\$2,924	6.84	\$146	
17	GS<50kW	16,268	0.00	3.51	70,120	\$3,424	\$397	\$281	\$677	\$2,747	5.06	\$137	
18	GS<50kW	5,856	2.01	2.34	105,413	\$5,850	\$143	\$683	\$826	\$5,024	7.08	\$251	
Total GS<50kW Projects Completed -- 2007		306,340	36.79	57.22	2,200,449	\$125,396	\$7,468	\$30,722	\$38,190	\$87,206	3.28	\$4,360	

Input to Table 6 -- As Filed Demand Reduction Residential Third Tranche Results												
Response to Question 30(b)												
Question 30 (b)Third Tranche GS<50 kW Reconciled to Table 6 of Exhibit 10	Customer Class	Calculated Energy Savings from TRC	Calculated Summer Peak (kW) from TRC	Calculated Winter Peak (kW) from TRC	Initial Energy Savings (Life Cycle)	TRC Program Benefits (Net of Free Riders)	Utility Program Cost (Total TRC Costs)	TRC Participant Cost	Total TRC Cost	Net TRC Cost	TRC Benefit/TR C Cost	SSM Amounts \$ (after Tax)
	2008 GS<50kW Projects Completed											
97	GS<50kW	7,440	1.59	1.67	37,200	\$2,711	\$97	\$2,268	\$2,365	\$347	1.15	\$17
61	GS<50kW	22,524	3.52	3.70	98,999	\$6,965	\$292	\$4,209	\$4,501	\$2,464	1.55	\$123
63	GS<50kW	10,267	2.07	2.18	88,746	\$5,312	\$133	\$3,521	\$3,655	\$1,657	1.45	\$83
65	GS<50kW	10,790	2.11	2.22	37,752	\$2,306	\$140	\$743	\$884	\$1,423	2.61	\$71
66	GS<50kW	30,761	3.47	3.66	85,438	\$5,483	\$399	\$3,280	\$3,679	\$1,803	1.49	\$90
67	GS<50kW	31,270	6.29	6.71	250,090	\$15,749	\$406	\$6,997	\$7,403	\$8,346	2.13	\$417
71	GS<50kW	6,424	1.34	1.41	31,380	\$2,218	\$83	\$1,167	\$1,251	\$967	1.77	\$48
72	GS<50kW	9,252	1.90	2.00	30,780	\$2,162	\$120	\$991	\$1,111	\$1,051	1.95	\$53
73	GS<50kW	29,818	5.96	6.27	101,180	\$6,751	\$387	\$1,528	\$1,915	\$4,836	3.53	\$242
74	GS<50kW	4,912	0.99	1.05	10,120	\$709	\$64	\$104	\$168	\$541	4.22	\$27
75	GS<50kW	6,832	1.44	1.52	41,340	\$2,915	\$89	\$1,643	\$1,731	\$1,184	1.68	\$59
76	GS<50kW	7,368	1.55	1.63	43,380	\$3,059	\$96	\$2,028	\$2,123	\$936	1.44	\$47
77	GS<50kW	7,380	1.49	1.57	14,760	\$1,031	\$96	\$148	\$243	\$787	4.23	\$39
78	GS<50kW	7,777	2.01	2.11	73,744	\$5,137	\$101	\$1,798	\$1,899	\$3,238	2.71	\$162
79	GS<50kW	36,169	5.10	5.65	101,696	\$6,498	\$470	\$4,532	\$5,001	\$1,497	1.30	\$75
82	GS<50kW	3,007	0.48	0.50	50,847	\$2,936	\$39	\$971	\$1,010	\$1,926	2.91	\$96
83	GS<50kW	1,648	1.20	0.38	23,077	\$1,322	\$21	\$594	\$615	\$707	2.15	\$35
84	GS<50kW	10,207	2.54	2.67	78,249	\$5,716	\$133	\$1,411	\$1,543	\$4,173	3.70	\$209
85	GS<50kW	38,916	10.17	10.71	374,354	\$26,278	\$505	\$16,612	\$17,117	\$9,161	1.54	\$458
26	GS<50kW					23,195	\$1,210	1,359	\$2,569	\$20,626	9.03	\$1,031
33	GS<50kW	13,530	0.00	2.92	58,320	3,369	\$176	350	\$526	\$2,844	6.41	\$142
36	GS<50kW	93,702	22.88	24.09	693,576	50,006	\$1,217	23,108	\$24,325	\$25,681	2.06	\$1,284
37	GS<50kW	25,585	6.06	6.38	139,992	9,787	\$332	5,820	\$6,152	\$3,635	1.59	\$182
	Total GS<50kW Projects Completed -- 2008	415,580	84.16	91.00	2,465,019	\$191,616	\$6,606	\$85,180	\$91,786	\$99,830	2.09	\$4,992
	Total GS<50kW Projects Completed -- End of 2008	876,628	153.26	182.23	5,653,072	\$381,697	\$36,353	\$164,748	\$201,102	\$180,595	1.90	\$9,030

Input to Table 6 -- As Filed Demand Reduction Residential Third Tranche Results												
Response to Question 30(b)												
Question 30 (b) Third Tranche GS<50 kW Reconciled to Table 6 of Exhibit 10	Customer Class	Calculated Energy Savings from TRC	Calculated Summer Peak (kW) from TRC	Calculated Winter Peak (kW) from TRC	Initial Energy Savings (Life Cycle)	TRC Program Benefits (Net of Free Riders)	Utility Program Cost (Total TRC Costs)	TRC Participant Cost	Total TRC Cost	Net TRC Cost	TRC Benefit/TR C Cost	SSM Amounts \$ (after Tax)
	Total 2005 and 2006	18,516	5.32	5.61	370,314	21,961	9,018	7,713	16,731	5,230	1.31	\$262
	LED Traffic Lights -- 2007	338,183	36.68	38.61	3,915,579	229,703	5,084	132,221	137,304	92,398	1.67	\$4,620
	LED Traffic Lights -- 2008	42,273	4.58	4.83	489,447	29,635	3,333	16,645	19,978	9,657	1.48	\$483
	Total Metered -- End of 2008	398,971	46.58	49.04	4,775,341	281,299	17,435	156,579	174,013	107,286	1.62	\$5,364

The energy quantities are correct but the TRC for one customer was reported against GS<50 kW instead of residential.

APPENDIX “D” – Question 30, part c)

Table 4 -- Response to Question 30c)

FOREGONE REVENUE BY PROGRAM AND CLASS (With Free Riders)

Rate Class, Program and Measure	2005	2006		2007		2008		2009		LRAM Lost Revenue for 2005 to 2009 Period \$
	First Year kWh Saved	Carried Forward Total kWh Saved For 2005	First Year kWh Saved Plus Carried Forward kWh For 2005	Carried Forward Total kWh Saved For 2005 and 2006	First Year kWh Saved Plus Carried Forward kWh For 05 and 06	Carried Forward Total kWh Saved For 2005, 2006 and 2007	First Year kWh Saved Plus Carried Forward kWh For 05, 06 and 07	Carried Forward Total kWh Saved For 2005, 2006, 2007 and 2008	First Year kWh Saved Plus Carried Forward kWh For 05, 06, 07 and 08	
Rates Effective	1-Mar-05		1-May-06		1-May-07		1-May-08		1-May-09	
Residential										
Rates (\$ per kWh)	\$0.01150		\$0.01120		\$0.01130		\$0.01120		\$0.01120	
Water Heater Tune-up										
Tank Wrap	12,504	50,018	68,357	86,697	100,805	114,912	114,912	114,912	114,912	4,630
Faucet Aerator	1,733	6,932	9,142	11,352	11,973	12,593	12,593	12,593	12,593	541
Showerhead	16,077	64,309	90,327	116,345	135,491	154,636	154,636	154,636	154,636	6,201
Pipe Wrap	3,335	13,338	23,051	32,764	36,457	40,151	40,151	40,151	40,151	1,610
CFL25	21,493	85,973	112,470	138,967	148,692	158,417	158,417	158,417	158,417	6,747
Weatherstripping	14,419	57,676	57,676	57,676	57,676	57,676	57,676	57,676	57,676	2,761
Outlet Insulation					179	358	358	358	358	10
Total Water Heater Tune-up	69,562	278,247	361,024	443,801	491,273	538,744	538,744	538,744	538,744	22,500
Fridge Buy-back	88,830	355,320	416,880	478,440	504,900	531,360	531,360	531,360	531,360	23,341
EnerGuide for Houses										
Caulking Products	81	326	326	326	326	326	326	326	326	16
Weatherstripping	122	489	489	489	489	489	489	489	489	23
Attic Insulation (R-11 to R-38)	951	3,802	3,802	3,802	3,802	3,802	3,802	3,802	3,802	182
Fuel Substitution	14,873	59,494	59,494	59,494	59,494	59,494	59,494	59,494	59,494	2,848
Basement Insulation	122	489	489	489	489	489	489	489	489	23
B-audits			11,090	22,180	22,180	22,180	22,180	22,180	22,180	873
Furnace Fans			5,265	10,530	10,530	10,530	10,530	10,530	10,530	414
Total EnerGuide for Houses	16,150	64,599	80,954	97,309	97,309	97,309	97,309	97,309	97,309	4,380
Information Based										
Inc. 60W to 15W CFL Project Porchlight			0	0	140,940	281,880	1,612,975	1,879,200	1,879,200	40,754
Inc. 60W to 15W CFL Promotions			21,141	42,282	126,846	211,410	279,687	293,343	293,343	8,095
Inc (125W) to LED (3.5W) (New)			0	0	27,366	54,732	54,732	54,732	54,732	1,536
Total Information Based			21,141	42,282	295,152	548,022	1,947,394	2,227,275	2,227,275	50,385
Demand Reduction				126,504	253,008	397,242	426,089	426,089	426,089	10,660
Third Tranche Total (kWh)	174,541	698,166	879,999	1,061,832	1,515,137	1,968,443	3,512,049	3,820,777	3,820,777	111,266
3rd Tranche Lost Revenue (\$)	2,007		9,944		17,071		39,452		42,793	111,266
OPA Residential (2006 & 2007)			963,385	1,926,771	2,440,089	2,945,103	2,945,103	2,945,103	2,945,103	104,446
OPA Lost Revenue (\$)	0		10,886		27,492		33,083		32,985	104,446
Total Residential	174,541	698,166	1,843,384	2,988,603	3,955,226	4,913,546	6,457,152	6,765,880	6,765,880	215,713
Class Lost Revenue (\$)	2,007		20,830		44,562		72,535		75,778	215,713
General Service < 50 kW (GS<50kW)										
Rates (\$ per kWh)	\$0.0142		\$0.01390		\$0.01400		\$0.01390		\$0.01390	
Demand Reduction			69,618	139,237	276,401	413,565	724,456	786,634	786,634	25,863
LED Traffic Lights	4,166	16,664	16,664	16,664	168,846	321,029	352,733	359,074	359,074	12,557
GS < 50 kW Total (kWh)	4,166	16,664	86,283	155,901	445,248	734,594	1,077,189	1,145,708	1,145,708	38,420
Class Lost Revenue (\$)	59		1,208		6,219		15,009		15,925	38,420
Unmetered Scattered Load										
Rates (\$ per kWh)	\$0.0142		\$0.01390		\$0.01400		\$0.01390		\$0.01390	
LED Traffic Lights	0	0	0	0	23,778	47,557	47,557	47,557	47,557	1,656
Class Lost Revenue (\$)	0		0		332		663		661	1,656
General Service > 50 kW (GS>50kW)										
Rates (\$ per kW)	\$2.1189		\$2.17850		\$2.19810		\$2.17830		\$2.17830	
Rates with Transformer Allowance (\$ per kW)	\$1.5189		\$1.5785		\$1.5981		\$1.5783		\$1.5783	
Demand Reduction	31	122	1,191	2,260	3,449	4,638	9,875	10,923	10,923	55,564
DR Transformer Allowance	20	82	82	82	783	1,484	2,531	2,740	2,740	9,741
Renewable Energy							20	25	25	98
GS>50 kW No Allowance (\$)	65		2,571		7,559		21,621		23,846	55,662
GS>50 kW With Allowance (\$)	31		127		1,246		4,011		4,325	9,741
Class Lost Revenue (\$)	96		2,698		8,805		25,632		28,171	65,402
Intermediate with Transformer Allowance										
Rates (\$ per kW)	\$0.3711		\$0.13210		\$0.13870		\$0.13210		\$0.13210	
Demand Reduction					190	380	380	380	380	127
Class Lost Revenue (\$)	0		0		26		51		50	127
Total Lost Revenue (\$)	2,162		24,736		59,944		113,890		120,586	321,318

Input to Table 4 Question 30c) -- As Filed Demand Reduction Residential Third Tranche Results													
Response to Question 30a)													
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings Annum (kWh) Filed	Filed Free Riders Filed	Total Energy Savings Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total
2007						Gross	Gross	Gross		Net	Net	Net	Net
2007 Lighting	Inc 100 watt 23 W CFL OEB Tables	120	179	0.000	0.039	0.000	4.635	21,437	90.00%	19,293	0.000	0.000	4,171
2007 Lighting	Inc 60 watt 13 W CFL OEB Tables	400	109	0.000	0.024	0.000	9,400	43,616	90.00%	39,254	0.000	0.000	8,460
Q Institutional Total						0.000	14,035	65,053		58,548	0.000	0.000	12,631
2007 Lighting	Inc 60 watt 13 W CFL Actual Hours	210	49	0.000	0.011	0.000	2,230	10,348	90.00%	9,313	0.000	0.000	2,007
2007 Lighting	Inc 100 watt 23 W CFL Actual hours	210	137	0.000	0.029	0.000	6,195	28,744	90.00%	25,869	0.000	0.000	5,575
2007 Appliances	Refrigerator	35	74	0.017	0.018	0.588	0.621	2,590	90.00%	2,331	0.529	0.529	0.559
2007 Appliances	Range/Oven	35	55	0.000	0.001	0.000	0.044	1,925	90.00%	1,733	0.000	0.000	0.040
M1 Institutional Total						0.588	9,090	43,607		39,246	0.529	0.529	8,181
Building Design Eng Calculations	Thermal Envelope	1	108,736	0.000	87,128	0.000	87,128	108,736	70.00%	76,115	0.000	0.000	60,990
Building Design Eng Calculations	Programmable Thermostat H & C	1	6,783	2,301	2,708	2,301	2,708	6,783	70.00%	4,748	1,611	1,611	1,895
Building Design Eng Calculations	Energy Star Air Source Heat Pump	1	99,410	40,984	47,604	40,984	47,604	99,410	70.00%	69,587	28,689	28,689	33,323
2007 Lighting	High Pressure Sodium -- Photocell	12	377	0.086	0.053	1,029	0.631	4,520	70.00%	3,164	0.720	0.720	0.442
2007 Appliances Unique	High Efficiency Clothes Washer/Dryer	8	286	0.010	0.012	0.080	0.094	2,286	70.00%	1,600	0.056	0.056	0.066
M2 Institutional Total						44,394	138,164	221,736		155,215	31,076	31,076	96,715
Total 2007 Demand Reduction						44,982	161,289	330,395	50.00%	253,008	31,605	31,605	117,527

Input to Table 4 Question 30c) -- As Filed Demand Reduction Residential Third Tranche Results													
Response to Question 30a)													
Initiative	Measure	Units	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum Filed	Filed Free Riders	Total Energy Savings per Annum Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum Filed	Total
2008					Gross	Gross			Net	Net			
2008 Thermal envelope	Attic Insulation for 40 Units	40	512	0.000	0.410	16,410	20,480	90.00%	18,432	0.000	14,769	18,432	
2008 Thermal envelope	Attic Insulation for Rec Centre	1	1,168	0.000	0.935	0.000	1,168	90.00%	1,051	0.000	0.842	1,051	
Total ZL Institutional						17,346	21,648		19,483	0.000	15,611	19,483	
2008 Lighting Calculated Customer Data	Inc 60W to 13W CFL Individual Suites	950	51	0.000	0.011	0.000	10,537	90.00%	44,003	0.000	9,483	44,003	
Total K Institutional						0.000	7,700	90.00%	32,155	0.000	6,930	32,155	
2008 Lighting	1-100W Inc to 23 W CFL	200	179	0.000	0.0385	0.000	12,375	90.00%	51,678	0.000	11,138	51,678	
2008 Lighting	1-60W Inc to 15 W CFL	550	104	0.000	0.0225	0.000	20,075	90.00%	83,833	0.000	18,068	83,833	
Total X Institutional						0.000	2,835	90.00%	11,839	0.000	2,552	11,839	
2008 Lighting	1-60W Inc to 13 W CFL	210	63	0.000	0.0135	0.000	2,232	90.00%	9,321	0.000	2,009	9,321	
2008 Lighting	1-40W Inc to 9 W CFL	144	72	0.000	0.0155	0.000	1,168	90.00%	525	0.000	0.168	525	
2008 Controls	Motion Sensors controls 432W	1	583	0.157	0.186411	0.157	5,253	90.00%	21,685	0.142	4,728	21,685	
Total O Commercial						0.157	5,253	90.00%	712	0.000	0.153	712	
2008 Lighting	2 - T12 34W (86W) to 2- T8 28W (55W)	11	72	0	0.0155	0.000	0.806	90.00%	3,366	0.000	0.725	3,366	
2008 Controls	1-40W Inc to 9 W CFL	52	72	0	0.0155	0.000	0.977	90.00%	4,078	0.000	0.879	4,078	
Total T Commercial						0.000	0.977						
Total 2008 Demand Reduction						0.157	54,188	83.33%	173,081	0.142	48,769	173,081	
							Last Year		144,234				
Total 2007 and 2008 Demand Reduction						45,139	215,477	83.33%	426,089	31,746	166,296	426,089	
							Last Year		355,074				

Input to Table 4 Question 30c) -- As Filed Residential Third Tranche Results
Response to Question 30a)

Initiative	Measure	Units	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum (kWh) Filed	Filed Free Riders	Total Energy Savings per Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
2005											
2005 Water Heater Tune-up	Tank Wrap	195	0.019	0.047	3,764	9,230	52,650	95.00%	50,018	3,576	8,768
2005 Water Heater Tune-up	Faucet Aerator	229	0.002	0.006	0.551	1,350	7,703	90.00%	6,932	0.496	1,215
2005 Water Heater Tune-up	Showerhead	131	0.039	0.096	5,108	12,526	71,455	90.00%	64,309	4,597	11,273
2005 Water Heater Tune-up	Pipe Wrap	195	0.005	0.013	1,059	2,598	14,820	90.00%	13,338	0.954	2,338
2005 Water Heater Tune-up	CFL25	549	0.000	0.038	0.000	20,588	95,526	90.00%	85,973	0.000	18,529
2005 Water Heater Tune-up	Weatherstripping	118	0.000	0.435	0.000	51,350	64,085	90.00%	57,676	0.000	46,215
Total 2005 Water Heater tune-up					10,482	97,641	306,238	25.00%	278,247	9,622	88,338
2005 Fridge Buy-back	Fridge Buy-back	329	0.272	0.288	89,574	94,644	394,800	90.00%	355,320	80,616	85,179
2005 Energuide for Houses	Caulking Products	1	0.00	0.29	0.000	0.290	362	90.00%	326	0.000	0.261
2005 Energuide for Houses	Weatherstripping	1	0.00	0.44	0.000	0.435	543	90.00%	489	0.000	0.392
2005 Energuide for Houses	Attic Insulation (R-11 to R-38)	1	0.00	3.38	0.000	3,385	4,224	90.00%	3,802	0.000	3,046
2005 Energuide for Houses	Fuel Substitution	3	0.00	17.66	0.000	52,968	66,104	90.00%	59,494	0.000	47,671
2005 Energuide for Houses	Basement Insulation	1	0.00	0.44	0.000	0.435	543	90.00%	489	0.000	0.392
Total 2005 Energuide for Houses					0.000	57,513	71,777	25.00%	64,599	0.000	51,762
2005 Information Based	CFL's	0			0.000	0.000	0.000		0.000	0.000	0.000
Total 2005					100.06	249.80	772,815	25.00%	698,166	90.24	225.28

Input to Table 4 Question 30c -- As Filed Residential Third Tranche Results

Response to Question 30a													
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings Annum (kWh) Filed	Filed Free Riders Filed	Total Energy Savings Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total
2006						Gross	Gross	Gross		Net	Net	Net	Net
2006 Water Heater Tune-up	Tank Wrap	143	270	0.019	0.047	2,760	6,768	38,610	95.00%	36,680	2,622	6,430	
2006 Water Heater Tune-up	Faucet Aerator	146	34	0.002	0.006	0.351	0.861	4,911	90.00%	4,420	0.316	0.775	
2006 Water Heater Tune-up	Showerhead	106	545	0.039	0.096	4,133	10,136	57,818	90.00%	52,036	3,720	9,122	
2006 Water Heater Tune-up	Pipe Wrap	284	76	0.005	0.013	1,543	3,784	21,584	90.00%	19,426	1,389	3,405	
2006 Water Heater Tune-up	CFL25	564	104	0.000	0.023	0.000	12,690	58,892	90.00%	52,993	0.000	11,421	
2006 Water Heater Tune-up	Outlet Insulation	0	18	0.000	0.015	0.000	0.000	0	90.00%	0	0.000	0.000	
Total 2006 Water Heater tune-up						8,788	34,238	181,805	50.00%	165,555	8,047	31,153	
								First Year		82,777			
2006 Fridge Buy-back	Fridge Buy-back	114	1,200	0.272	0.288	31,038	32,795	136,800	90.00%	123,120	27,934	29,515	
2006 Energuide for Houses	B-audits	3	8,215	0.000	6.582	0.000	19,747	24,644	90.00%	22,180	0.000	17,772	
2006 Energuide for Houses	Furnace Fans	39	300	0.000	0.240	0.000	9,375	11,700	90.00%	10,530	0.000	8,438	
Total 2006 Energuide for Houses						0.000	29,122	36,344	50.00%	32,710	0.000	26,210	
								First Year		16,355			
2006 Information Based	Inc. 60W to 15W CFL Giveaways	450	104	0.000	0.023	0.000	10,125	46,980	90.00%	42,282	0.000	9,113	
2006 CFL's								First Year		21,141			
Total 2006						39.83	106.28	401,929	50.00%	363,666	35.98	95.99	
								First Year		181,833			

Input to Table 4 Question 30c -- As Filed Residential Third Tranche Results

Response to Question 30a)												
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum (kWh) Filed	Filed Free Riders Filed	Total Energy Savings per Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
2007						Gross	Gross	Net		Net	Net	Net
2007 Water Heater Tune-up	Tank Wrap	110	270	0.019	0.047	2,123	5,206	29,700	95.00%	28,215	2,017	4,946
2007 Water Heater Tune-up	Faucet Aerator	41	34	0.002	0.006	0.099	0.242	1,379	90.00%	1,241	0.089	0.218
2007 Water Heater Tune-up	Showerhead	78	545	0.039	0.096	3,042	7,458	42,545	90.00%	38,291	2,737	6,712
2007 Water Heater Tune-up	Pipe Wrap	108	76	0.005	0.013	0.587	1,439	8,208	90.00%	7,387	0.528	1,295
2007 Water Heater Tune-up	CFL25	207	104	0.000	0.023	0.000	4,658	21,611	90.00%	19,450	0.000	4,192
2007 Water Heater Tune-up	Outlet Insulation	22	18	0.000	0.015	0.000	0.319	398	90.00%	358	0.000	0.287
Total 2007 Water Heater tune-up						5,850	19,322	103,842	50.00%	94,942	5,371	17,650
								First Year		47,471		
2007 Fridge Buy-back	Fridge Buy-back	49	1,200	0.272	0.288	13,341	14,096	58,800	90.00%	52,920	12,007	12,686
								First Year		26,460		
2007 Energuide for Houses												
Total 2007 Energuide for Houses												
2007 Information Based								First Year		0		
2007 CFL's	Inc. 60W to 15W CFL Project Porchlight	3,000	104	0.000	0.023	0.000	67,500	313,200	90.00%	281,880	0.000	60,750
2007 CFL's	Inc. 60W to 15W CFL Various promotions	1,800	104	0.000	0.023	0.000	40,500	187,920	90.00%	169,128	0.000	36,450
2007 LED's	Inc (125W) to LED (3.5W) (New)	3,225	19	0.000	0.008	0.000	26,517	60,813	90.00%	54,732	0.000	23,866
Total 2007 CFL's and LED's		8,025										
Other Program Costs such as advertising, promotions, education, etc.						0.000	134,517	561,933		505,740	0.000	121,066
Total 2007 Information Based								First Year		252,870		
Total 2007						19.19	167.94	724,575		653,602	17.38	151.40
								First Year		326,801		

Input to Table 4 Question 30c) -- As Filed Residential Third Tranche Results												
Response to Question 30a)												
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum (kWh) Filed	Filed Free Riders Filed	Total Energy Savings per Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
2005 through 2008												
Water Heater Tune-up (2005 through 2008)												
2005						10,482	97,641	306,238		278,247	9,622	88,338
2006						8,788	34,238	181,805		165,555	8,047	31,153
2007						5,850	19,322	103,842		94,942	5,371	17,650
2008						0,000	0,000	0		0	0,000	0,000
Total						25,120	151,201	591,884		538,744	23,041	137,141
Fridge Buy-back (2005 through 2008)												
2005						89,574	94,644	394,800		355,320	80,616	85,179
2006						31,038	32,795	136,800		123,120	27,934	29,515
2007						13,341	14,096	58,800		52,920	12,007	12,686
2008						0,000	0,000	0		0	0,000	0,000
Total						133,952	141,534	590,400		531,360	120,557	127,381
Energuide for Houses 2005 through 2008												
2005						0,000	57,513	71,777		64,599	0,000	51,762
2006						0,000	29,122	36,344		32,710	0,000	26,210
2007						0,000	0,000	0		0	0,000	0,000
2008						0,000	0,000	0		0	0,000	0,000
Total						0,000	86,635	108,121		97,309	0,000	77,972
Information Based 2005 through 2008												
2005						0,000	0,000	0		0	0,000	0,000
2006						0,000	10,125	46,980		42,282	0,000	9,113
2007						0,000	134,517	561,933		505,740	0,000	121,066
2008						0,000	402,120	1,865,837		1,679,253	0,000	361,908
Total						0,000	546,762	2,474,750		2,227,275	0,000	492,086

Input to Table 4 Question 30c) -- As Filed General Service < 50 kW Third Tranche Results																		
Response to Question 30a)																		
Customer Number	Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum Filed	Filed Free Riders	Total Energy Savings (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed		
46	2006 GS<50 kW Projects	4-T12's TO 3-T8, 3X28W (90W)	3,900	0.144	0.090	27	211	0.046	0.049	1,247	1,312	5,686	90.00%	5,118	1,122	1,181		
		4-T12's TO 2-T5's 2X28W (58W)	3,900	0.144	0.058	4	335	0.074	0.077	0.294	0.310	1,207	90.00%	1,207	0.265	0.279		
		2-T12 (72W) TO 1-T5 (28W) (30W)	3,900	0.072	0.030	4	164	0.036	0.038	0.144	0.151	655	90.00%	590	0.129	0.136		
		2-T12 (72W) TO 2-T5 (28W) (59W)	3,900	0.072	0.059	3	51	0.011	0.012	0.033	0.035	137	90.00%	137	0.030	0.032		
		1-T12 (40W) TO 1-T8 (28W) (32W)	8,760	0.040	0.032	8	70	0.008	0.008	0.061	0.064	561	90.00%	505	0.055	0.058		
		2-T12 8ft (180W) TO 4-T8 (28W) (111W)	3,900	0.180	0.111	86	269	0.059	0.062	5,074	5,341	23,143	90.00%	20,828	4,566	4,807		
		1-Halogen (90W) TO 1-CFL (23W)	3,900	0.090	0.023	31	261	0.057	0.060	1,776	1,869	8,100	90.00%	7,290	1,598	1,682		
		1-Halogen (45W) TO 1-CFL (23W)	3,900	0.045	0.023	59	86	0.019	0.020	1,110	1,168	5,062	90.00%	4,556	999	1,051		
		2-T5's 2X28W (58W) --NEW	3,900	0.000	0.058	3	-226	-0.050	-0.052	-0.149	-0.157	-679	90.00%	-611	-0.134	-0.141		
		2-T12 8ft (180W) -- Removed	3,900	0.180	0.000	5	702	0.154	0.162	0.770	0.810	3,510	90.00%	3,159	0.693	0.729		
		2-T12 (75W) TO 2-T8 (28W) (60W)	3,900	0.075	0.060	11	59	0.013	0.014	0.141	0.149	644	90.00%	579	0.127	0.134		
		1-T8s (28W) (32W) --NEW	3,900	0.000	0.032	6	-125	-0.027	-0.029	-0.164	-0.173	-749	90.00%	-674	-0.148	-0.156		
		Incandescent Floods (150W) --Removal	3,900	0.150	0.000	2	585	0.128	0.135	0.257	0.270	1,170	90.00%	1,053	0.231	0.243		
		2-T12 (110W) TO 1-T8 (32W)	8,760	0.110	0.032	1	683	0.074	0.078	0.074	0.078	683	90.00%	615	0.067	0.070		
47	2006 Lighting	Inc 30W Exit to 3Watt LED	8,760	0.030	0.003	2	237	0.028	0.027	0.051	0.054	473	90.00%	428	0.046	0.049		
		Inc 100W TO 23 Watt CFL	1,500	0.100	0.023	13	116	0.030	0.032	0.395	0.416	1,502	90.00%	1,351	0.356	0.374		
		MVR 1000 Watt High Bay -- Removal	2,500	1.100	0.000	4	2,750	0.723	0.762	2,894	3,046	11,000	90.00%	9,900	2,605	2,742		
		Total Lighting				269				14,006	14,743	62,255		56,029	12,606	13,269		
		2006 Sensor				1	491	0.100	0.119	0.100	0.119	491	90.00%	442	0.090	0.107		
		2006 Photo Cell				1	142	0.032	0.020	0.032	0.020	142	90.00%	128	0.029	0.018		
		Custom Project Reference Appendix 10-C Input Assumptions Page 2 of 25																
		Total Project									14,138	14,882	62,888		56,599	12,724	13,393	
		2006 Lighting																
		4-T12 (153W) TO 3-T5 (88W)	8,760	0.153	0.088	155	195	0.051	0.054	7,952	8,370	30,225	90.00%	27,203	7,157	7,533		
		LED Exit Lights -- Single Sided	8,760	0.015	0.002	12	114	0.012	0.013	0.144	0.156	1,367	90.00%	1,230	0.133	0.140		
		LED Exit Lights -- Double Sided	8,760	0.03	0.004	7	228	0.025	0.026	0.173	0.182	1,594	90.00%	1,435	0.156	0.164		
		Total Lighting									9,817	10,333	47,421		42,679	8,835	9,300	
		48	2006 Lighting	2-T12 34W (86W) TO 2-T8 28W (55W)	4,000	0.086	0.055	50	124	0.027	0.028	1,325	1,395	6,200	90.00%	5,580	1,193	1,256
Total Lighting						50				1,325	1,395	6,200		5,580	1,193	1,256		
51	2006 Lighting	T12-4X4 (164W) TO T8-2X4 (28W) (45W)	8,760	0.164	0.045	2	1,042	0.113	0.119	0.226	0.238	2,085	90.00%	1,876	0.203	0.214		
		T12-4X4 (164W) TO T8-2X4 (28W) (45W)	2,600	0.164	0.045	13	309	0.081	0.086	1,058	1,114	4,022	90.00%	3,620	0.952	1,002		
		T12-2X4 (82W) TO T8-2X4 (28W) (45W)	2,600	0.082	0.045	12	96	0.025	0.027	0.304	0.320	1,154	90.00%	1,039	0.273	0.288		
		T12-2X4 (82W) Removed/Replacement	2,600	0.082	0	20	213	0.056	0.059	1,122	1,181	4,264	90.00%	3,838	1,010	1,063		
		T12-4X4 (164W) Removed/Replacement	2,600	0.164	0	2	426	0.112	0.118	0.224	0.236	853	90.00%	768	0.202	0.213		
		T12-2X8 (160W) TO T8-2X4 (28W) (45W)	2,600	0.16	0.045	24	299	0.079	0.083	1,888	1,987	7,176	90.00%	6,458	1,699	1,789		
		T8-2X4 (28W) (45W) New/Replacement	2,600	0	0.045	24	-117	-0.031	-0.032	-0.739	-0.778	-2,808	90.00%	-2,527	-0.665	-0.700		
		T12-2X4 (82W) TO T8-2X4 (28W) (45W) Wash	780	0.082	0.045	1	29	0.008	0.008	0.008	0.008	29	90.00%	26	0.007	0.007		
		T12-4X4 (164W) TO T8-2X4 (28W) (45W) Wash	780	0.164	0.045	6	93	0.024	0.026	0.147	0.154	557	90.00%	501	0.132	0.139		
		T12-2X4 (82W) TO T8-2X4 (28W) (45W) Lunch	780	0.082	0.045	1	29	0.008	0.008	0.008	0.008	29	90.00%	26	0.007	0.007		
		T12-2X4 (82W) Removed/Replacement Lunch	780	0.082	0	1	64	0.017	0.018	0.017	0.018	64	90.00%	58	0.015	0.016		
		T12-4X4 (164W) TO T8-2X4 (28W) (45W) Board air	100	0.164	0.045	5	12	0.003	0.003	0.016	0.016	60	90.00%	54	0.014	0.015		
		T12-2X4 (82W) TO T8-2X4 (28W) (45W) office stor	50	0.082	0.045	1	2	0.000	0.001	0.000	0.001	2	90.00%	2	0.000	0.000		
		T12-4X4 (164W) TO T8-2X4 (28W) (45W) Kitchen	730	0.164	0.045	6	87	0.023	0.024	0.137	0.144	521	90.00%	469	0.123	0.130		
4	2006 Lighting	F20T12CW (26W) TO F20T8 (18W)	365	0.026	0.018	1	3	0.001	0.001	0.001	0.001	3	90.00%	3	0.001	0.001		
		T12-4X4 (164W) TO T8-2X4 (28W) (45W) LR & BR	365	0.164	0.045	9	43	0.011	0.012	0.103	0.108	391	90.00%	352	0.093	0.097		
		Inc 30W Exit TO 2W LED	8,760	0.03	0.002	4	245	0.027	0.028	0.106	0.112	981	90.00%	883	0.086	0.101		
		Inc 60W TO 13W CFL Range Hood	365	0.06	0.013	1	17	0.005	0.005	0.005	0.005	15	90.00%	15	0.004	0.004		
		Inc 60W TO 13W CFL LR Table Lamp	1095	0.06	0.013	2	51	0.014	0.014	0.027	0.029	103	90.00%	93	0.024	0.026		
		Inc 40W TO 13W CFL -- Washroom	730	0.04	0.013	4	20	0.005	0.005	0.021	0.022	79	90.00%	71	0.019	0.020		
		Total Lighting				139				4,677	4,924	19,581		17,623	4,210	4,431		
		2006 Controls				1	386	0.052	0.062	0.052	0.062	386	90.00%	347	0.047	0.056		
		Total Project									4,730	4,986	19,967		17,971	4,257	4,487	
		2006 Lighting																
		4x4 - T12 (164W) TO 4x-T8 28W (98W)	8,760	0.164	0.098	9	578	0.063	0.066	0.564	0.594	5,203	90.00%	4,683	0.508	0.535		
		2x4 - T12 (82W) TO 2-T8 28W (49W)	8,760	0.082	0.049	8	289	0.031	0.033	0.251	0.264	2,313	90.00%	2,081	0.226	0.238		
		4x4 - T12 (164W) TO 4x-T8 28W (98W)	600	0.164	0.098	15	40	0.010	0.011	0.156	0.164	594	90.00%	535	0.141	0.148		
		2x4 - T12 (82W) TO 2-T8 28W (49W)	600	0.082	0.049	14	20	0.005	0.005	0.073	0.077	277	90.00%	249	0.066	0.069		
Inc. 100 W TO 26 Watt CFL Wash	600	0.100	0.026	3	44	0.012	0.012	0.035	0.037	133	90.00%	120	0.032	0.033				
Total Lighting									1,079	1,136	8,520		7,668	0.971	1,023			

Input to Table 4 Question 30c) -- As Filed General Service < 50 kW Third Tranche Results

Response to Question 30a)

Customer Number	Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Gross	Total Winter Peak kW Savings per Annum Gross	Total Energy Savings per Annum Filed	Total Free Riders Filed	Total Savings per (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
5	2006 Lighting	4x4 - T12 (164W) TO 4x-T8 28W (98W)	8760	0.164	0.098	7	578	0.063	0.066	0.439	0.462	4.047	90.00%	3.642	0.395	0.418
	2006 Lighting	2x4 - T12 (82W) TO 2-T8 28W (49W)	8760	0.082	0.049	16	289	0.031	0.033	0.502	0.528	4.163	90.00%	4.163	0.451	0.475
	2006 Lighting	4x4 - T12 (164W) TO 4x-T8 28W (98W)	600	0.164	0.098	15	40	0.010	0.011	0.156	0.164	594	90.00%	535	0.141	0.148
	2006 Lighting	2x4 - T12 (82W) TO 2-T8 28W (49W)	600	0.082	0.049	9	20	0.005	0.005	0.047	0.049	178	90.00%	160	0.042	0.044
	2006 Lighting	Inc. 100 W TO 26 Watt CFL Wash	600	0.100	0.026	6	44	0.012	0.012	0.070	0.074	266	90.00%	240	0.063	0.066
	Total Lighting									1.214	1.278	9.711		8.740	1.092	1.150
	Total 2006 Demand Reduction									32.303	34.009	154.708	50.00%	139.237	29.073	30.608
										First Year				69.618		
	2007 GS-50 kW Projects															
52	2007 Lighting	T12-2x4 (34W) (82W) to T8-25w (40W)	8760	0.082	0.040	90	368	0.040	0.042	3.591	3.780	33.113	90%	29.802	3.232	3.402
	2007 Lighting	T12-2x4 (40W) (96W) to T8-25w (40W)	8760	0.096	0.040	47	491	0.053	0.056	2.500	2.632	23.056	90%	20.751	2.250	2.369
	2007 Lighting	T12-2x4 (40W) (96W) Removed	8760	0.096	0.000	26	841	0.091	0.096	2.371	2.496	21.865	90%	19.678	2.134	2.246
	2007 Lighting	T12-4x4 40W (186W) Removed Permanently	4,000	0.186	0.000	12	744	0.159	0.167	1.908	2.009	8.928	90%	8.035	1.718	1.808
	2007 Lighting	T12-2x8 HO (186W) Removed Garage	8,760	0.184	0.000	16	1,612	0.175	0.183	2.797	2.944	25.789	90%	23.210	2.577	2.850
	2007 Lighting	HPS (70) (91) MH Garage Replacement	8,760	0.000	0.091	13	-797	-0.086	-0.091	-1.124	-1.183	-10.363	90%	-9.327	-1.011	-1.065
	2007 Lighting	T12-2x4 (40W) (96W) to T8-25w (40W)	2,190	0.096	0.040	12	123	0.032	0.034	0.387	0.408	1.472	90%	1.325	0.348	0.367
	2007 Lighting	T12-2x4 (40W) (96W) to T8-25w (40W)	8,760	0.096	0.040	4	491	0.053	0.056	0.213	0.224	1.962	90%	1.766	0.192	0.202
	2007 Lighting	Inc 75Watt to 9 Watt CFL's	4,000	0.075	0.008	17	264	0.053	0.056	0.909	0.957	4.488	90%	4.039	0.818	0.861
	Total Lighting									13.553	14.266	110.310		99.279	12.197	12.839
54	2007 Lighting	1-65W Inc to 13 W CFL	4,000	0.085	0.013	34	208	0.042	0.044	1.432	1.507	7.072	90%	6.365	1.289	1.356
	Total Lighting									1.432	1.50722	7.072		6.365	1.289	1.356
55	2007 Lighting	T12-2x4 (32W) (82W) to T8-2x4 (25W) (37W)	8760	0.082	0.046	30	315	0.034	0.036	1.026	1.080	9.461	90%	8.515	0.923	0.972
	2007 Lighting	T12-2lamp (82W) to T8-2 lamp (25W) (37W)	2920	0.082	0.046	4	105	0.028	0.029	0.116	0.116	420	90%	378	0.100	0.105
	2007 Lighting	Inc 75W to 14W CFL	8760	0.075	0.014	21	534	0.058	0.061	1.217	1.281	11.222	90%	10.059	1.095	1.153
	2007 Lighting	Inc 75W Spot to 15W CFL Spot	8760	0.075	0.014	4	534	0.058	0.061	0.232	0.244	1.924	90%	1.924	0.209	0.220
	2007 Lighting	Inc 75W Spot to 15W CFL Spot	5110	0.075	0.014	5	312	0.049	0.052	0.247	0.260	1.559	90%	1.403	0.222	0.234
	2007 Lighting	Inc 75W to 14W CFL	525	0.075	0.014	152	32	0.000	0.007	0.000	0.049	4.868	90%	4.381	0.000	0.844
	2007 Lighting	Inc 75W to 14W CFL	790	0.075	0.014	50	48	0.000	0.003	0.000	0.174	808	90%	2.169	0.000	0.467
	2007 Lighting	Inc 75W to 14W CFL	265	0.075	0.014	16	16	0.000	0.003	0.000	0.174	808	90%	2.169	0.000	0.467
	2007 Lighting	Inc 75W to 14W CFL	2920	0.075	0.014	1	178	0.044	0.047	0.047	0.047	178	90%	190	0.040	0.042
	2007 Lighting	Inc 75W to 14W CFL	100	0.075	0.014	1	6	0.002	0.002	0.002	0.002	6	90%	5	0.001	0.001
	2007 Lighting	Inc 30 Watt to LED 1.6 Watt Exit	8760	0.030	0.003	10	238	0.026	0.027	0.258	0.272	2.383	90%	2.144	0.233	0.245
	2007 Lighting	Inc 7 Watt Decorative to LED 2W Watt Decorative	5112	0.007	0.002	280	26	0.004	0.005	1.137	1.260	7.157	90%	6.441	1.077	1.134
	2007 Lighting	T12-1x4 to 14W CFL	525	0.075	0.014	10	32	0.008	0.008	0.080	0.084	320	90%	288	0.072	0.076
	2007 Lighting	Inc 75W to 28W CFL	525	0.075	0.014	18	32	0.008	0.008	0.144	0.151	576	90%	519	0.129	0.136
	Total Lighting									4.557	6.540	43.505		39.154	4.101	5.886
56	2007 Lighting	4X8 - T12 (316W) to 2x4 Tandem 4bulbs T8(32W)	3000	0.316	0.098	60	654	0.172	0.181	10.323	10.867	39.240	90%	35.316	9.291	9.780
	2007 Lighting	2X8 - T12 (158W) to 2x4 Tandem 4bulbs T8 (98W)	3000	0.158	0.098	3	180	0.047	0.050	0.142	0.150	540	90%	486	0.128	0.135
	2007 Lighting	2 - T12 (40W) (86W) to 2- T8 (51W)	3000	0.086	0.051	2	105	0.028	0.029	0.055	0.058	210	90%	189	0.050	0.052
	2007 Lighting	1X8 - T12 (74W) to 1X4X4 T8 (98W)	3000	0.074	0.098	3	-72	-0.019	-0.020	-0.057	-0.060	-216	90%	-194	-0.051	-0.054
	2007 Lighting	1X8 T12 (74W) Removal	3000	0.074	0.000	3	222	0.068	0.068	0.175	0.184	666	90%	599	0.158	0.166
	2007 Lighting	2X8 - T12 (158W) to 2x4 T8 (51W) (25W)	3000	0.158	0.051	7	321	0.084	0.089	0.591	0.622	2.247	90%	2.022	0.532	0.560
	2007 Lighting	T12-1x4 (44W) to T8-1x4 (25W) (23W)	3000	0.044	0.023	3	63	0.017	0.017	0.050	0.052	189	90%	170	0.045	0.047
	2007 Lighting	T12-1x4 (44W) to T8-1x4 (25W) (23W)	3000	0.044	0.023	1	63	0.017	0.017	0.017	0.017	63	90%	57	0.015	0.016
	2007 Lighting	4X8 - T12 (316W) to 2x4 Tandem 4bulbs T8(32W)	3000	0.316	0.098	5	654	0.172	0.181	0.860	0.906	3.270	90%	2.943	0.774	0.815
	Total Lighting									12.157	12.797	45.209		41.588	10.941	11.517
57	2007 Lighting	2 - T12 34W (86W) to 2- T8 28W (55W)	4000	0.086	0.055	28	124	0.027	0.028	0.742	0.781	3.472	90%	3.125	0.688	0.703
	Total Lighting									0.742	0.781	3.472		3.125	0.688	0.703
60	2007 Roof Top	Replace SEER 9.5 with SEER 13.45 Roof Top				1	6,880	1.346	1.571	1.346	1.571	6,880	70%	4.816	0.943	1.100
	Custom Protect Reference Appendix 10-C Input Assumptions Page 9 of 25															
	Total Roof Top									1.346	1.571	6,880		4.816	0.943	1.100

Input to Table 4 Question 30c) -- As Filed General Service < 50 kW Third Tranche Results
Response to Question 30a)

Customer Number	Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum Filed	Filed Free Riders	Total Energy Savings per (kWh) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
9	2007 Lighting Murb	T8-1x4 (32W) (30W) to T8-1x4 (25W) (23W)	8760	0.030	0.023	89	61	0.007	0.592	0.623	5,457	90%	4.912	0.533	0.561
	2007 Lighting Murb	T8-2x4 (32W) (51W) to T8-2x4 (25W) (40W)	730	0.051	0.040	9	8	0.002	0.019	0.020	72	90%	65	0.017	0.018
	2007 Lighting Murb	T8-1x4 (32W) (30W) to T8-1x4 (25W) (23W)	730	0.030	0.023	4	5	0.001	0.005	0.006	20	90%	18	0.005	0.005
	2007 Lighting Murb	T12-2U tube (40W) (66W) to T8-2x4 (25W) (40W)	730	0.086	0.040	44	41	0.011	0.473	0.498	1,799	90%	1,619	0.426	0.448
	2007 Lighting Murb	T12-2x4 (32W) (62W) to T8-2x4 (25W) (40W)	8760	0.082	0.040	1	368	0.040	0.040	0.042	368	90%	331	0.036	0.038
	2007 Lighting Murb Apt.	Inc 60W to 13W CFL 1095 hours	1095	0.060	0.013	219	51	0.000	0.011	0.000	2,429	90%	10,144	0.000	2,186
	2007 Lighting Murb Apt.	Inc 60W to 13W CFL 180 hours	180	0.060	0.013	18	8	0.000	0.000	0.000	152	90%	137	0.000	0.000
	2007 Lighting Murb Apt.	Inc 75W to 20W CFL 180 hours	180	0.075	0.020	3	10	0.000	0.000	0.000	30	90%	27	0.000	0.000
	2007 Lighting Murb Apt.	Inc 60W to 13W CFL at 730 hours	730	0.060	0.013	50	34	0.000	0.000	0.000	3,716	90%	1,544	0.000	0.333
	2007 Lighting Murb Apt.	Inc 60W to 13W CFL at 1095 hours	1095	0.060	0.013	26	51	0.000	0.011	0.000	2,288	90%	1,204	0.000	0.260
	2007 Lighting Murb Apt.	Inc 75W to 20W at 1095 hours	1095	0.075	0.020	15	60	0.000	0.013	0.000	1,950	90%	813	0.000	0.175
	Total Lighting								1,129	4,510	23,127		20,814	1,016	4,059
13	2007 Lighting	1-60W Inc to 13 W CFL	2320	0.060	0.013	257	109	0.000	0.024	0.000	6,040	90%	25,221	0.000	5,436
	2007 Lighting	1-100W Inc to 23 W CFL	2320	0.100	0.023	10	179	0.000	0.039	0.000	1,786	90%	1,608	0.000	0.347
	Total Lighting								0.000	6,425	29,810		26,829	0.000	5,782
14	2007 Lighting	1-60W Inc to 13 W CFL	2320	0.060	0.013	117	109	0.000	0.024	0.000	2,750	90%	11,482	0.000	2,475
	2007 Lighting	1-100W Inc to 23 W CFL	2320	0.100	0.023	6	179	0.000	0.039	0.000	1,072	90%	965	0.000	0.208
	Total Lighting								0.000	2,981	13,830		12,447	0.000	2,682
17	2007 Lighting	1-100W Inc to 26 W CFL	2320	0.100	0.026	16	172	0.000	0.037	0.000	2,747	90%	2,472	0.000	0.533
	2007 Lighting	1-60W Inc to 13 W CFL	2320	0.060	0.013	124	109	0.000	0.024	0.000	2,914	90%	12,168	0.000	2,623
	Total Lighting								0.000	3,506	16,268		14,641	0.000	3,155
18	2007 Programmable Thermostats	Programmable Thermostat Heating/Cooling				3	1,952	0.669	0.780	2,006	2,340	90%	5,271	1,805	2,106
	Total Programmable Thermostat								2,006	2,340	5,856		5,271	1,805	2,106
	Total 2007 Demand Reduction								36,922	57,222	306,339	50.00%	274,329	32,961	51,186
											First Year		137,164		
97	2008 GS<50 kW Projects														
	2008 Lighting Industrial	2 - T12 34W (86W) to 2- T8 28W (65W)	4000	0.086	0.055	60	124	0.027	0.028	1,590	1,674	90%	6,696	1,431	1,507
	Total Lighting								1,590	1,674	7,440		6,696	1,431	1,507
61	2008 Lighting	2X8-T12 FIXTURE TO 4X4 T8(25W) (84W)	5475	0.172	0.084	35	482	0.075	0.079	2,633	2,772	90%	15,177	2,370	2,495
	2008 Lighting	2X8-T12 FIXTURE Removal	5475	0.172	0.084	1	482	0.075	0.079	0.075	0.079	90%	434	0.068	0.071
	2008 Lighting	2X4-T12 FIXTURE TO 2-F028T8(64)XPSS-ECO	5475	0.086	0.042	11	241	0.038	0.040	0.414	0.436	90%	2,385	0.372	0.392
	2008 Lighting	100W Inc. to 23W CFL	5475	0.1	0.023	6	422	0.061	0.064	0.368	2,529	90%	2,277	0.329	0.346
	Total Lighting								3,488	3,672	22,524		20,272	3,139	3,305
63	2008 Lighting	2 - T12 (34W) (86W) to 2- T8 (28W) (51W)	4000	0.082	0.051	42	124	0.027	0.028	1,113	1,172	90%	4,687	1,002	1,055
	2008 Lighting	2 - T12 (34W)(86W) Removal	4000	0.082	0	6	328	0.070	0.074	0.441	0.443	90%	1,771	0.379	0.399
	2008 Lighting	2L (30W) Inc to 3W Exit	8760	0.03	0.003	5	237	0.026	0.027	0.128	0.135	90%	1,064	0.115	0.122
	2008 Lighting	2 - T12 (34W)(86W) to 1- T8 (28W) (29W)	4000	0.082	0.029	9	212	0.045	0.048	0.408	0.429	90%	1,717	0.367	0.386
	Total Lighting								2,070	2,179	10,267		9,240	1,863	1,961
65	2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8760	0.03	0.016	3	249	0.027	0.028	0.081	0.085	90%	672	0.073	0.077
	2008 Lighting	40 W Inc. to 7 W CFL	4000	0.04	0.007	65	132	0.027	0.028	1,737	1,829	90%	7,722	1,963	1,946
	2008 Lighting	40 W Inc. to 9 W CFL	4000	0.04	0.009	6	124	0.025	0.026	0.151	0.159	90%	670	0.136	0.143
	2008 Lighting	Hal 50W to 35W Hal Corner spots	4000	0.05	0.035	12	60	0.012	0.012	0.142	0.150	90%	648	0.128	0.135
	Total Lighting								2,111	2,222	10,790		9,711	1,900	2,000

Input to Table 4 Question 3bc) -- As Filed General Service < 50 kW Third Tranche Results
Response to Question 30a)

Customer Number	Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Gross	Total Winter Peak kW Savings per Annum Gross	Total Energy Savings per Annum Filed	Total Free Riders Filed	Total Energy Savings per (kWh) Filed	Net	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
66	2008 Lighting	T12-2x4 (82W) to T8-2x4 (25W) (40W)	8760	0.082	0.040	17	368	0.040	0.042	0.678	0.714	6.255	90%	5.629	79	0.610	0.643
	2008 Lighting	T12-2lamp (82W) to T8-2 lamp (25W) (40W)	1040	0.082	0.040	2	44	0.011	0.012	0.023	0.024	87	90%	79	0.021	0.022	0.022
	2008 Lighting	T12-2x8 (160W) to T8-2x4 (25W) (40W)	1480	0.160	0.040	2	178	0.047	0.049	0.093	0.098	355	90%	320	0.084	0.089	0.089
	2008 Lighting	Inc 60W to 13W CFL	8760	0.080	0.013	55	412	0.045	0.047	2.456	2.585	22.645	90%	20.380	210	2.327	2.327
	2008 Lighting	Inc 100W to 13W CFL	1040	0.080	0.013	2	49	0.012	0.013	0.024	0.026	98	90%	88	0.022	0.023	0.023
	2008 Lighting	Inc 60W Flood to 15W CFL	520	0.100	0.013	6	45	0.011	0.011	0.068	0.071	271	90%	244	0.061	0.064	0.064
	2008 Lighting	Inc 65W Flood to 15W CFL	520	0.085	0.015	3	26	0.006	0.007	0.019	0.020	78	90%	70	0.017	0.018	0.018
	2008 Lighting	Inc 60W to 13W CFL	520	0.080	0.013	2	24	0.006	0.006	0.012	0.013	49	90%	44	0.011	0.012	0.012
	2008 Lighting	Inc 7 Watt to LED 8 Watt Exit	8760	0.007	0.001	17	54	0.006	0.006	0.100	0.105	923	90%	831	0.090	0.095	0.095
	Total Lighting									3.474	3.657	30.761		27.685	3.127	3.291	3.291
67	2008 Lighting	2 - T12 34W (86W) to 2 - T8 25W (47W)	4000	0.086	0.047	43	156	0.033	0.035	1.434	1.509	6.708	90%	6.037	1290	1.358	1.358
	2008 Lighting	4 - T12 34W (156W) to 4 - T8 28W (95W)	4000	0.156	0.095	32	244	0.052	0.055	1.689	1.757	7.808	90%	7.027	1502	1.581	1.581
	2008 Lighting	1-60W Inc to 13 W CFL	4000	0.060	0.015	58	180	0.036	0.038	2.114	2.225	10.440	90%	9.396	1902	2.003	2.003
	2008 Lighting	1-30W Inc Exit to 1-3W LED	8760	0.030	0.003	16	237	0.026	0.027	0.410	0.432	3.784	90%	3.408	0.369	0.389	0.389
	Total Lighting					3	810	0.218	0.259	5.627	5.923	28.740	90%	25.866	5.064	5.331	5.331
	2008 Controls	Motion Sensors 600 Watts each				1	100	0.004	0.010	0.004	0.010	100	90%	2.187	0.590	0.699	0.699
	2008 Controls	Timer 100 watts				1	100	0.004	0.010	0.004	0.010	100	90%	90	0.004	0.009	0.009
	Total Lighting and Controls									6.287	6.710	31.270		28.143	5.658	6.039	6.039
	2008 Lighting	2-T12 34W (86W) to 2-T8 28W (55W)	4000	0.086	0.055	18	124	0.027	0.028	0.477	0.502	2.232	90%	2.009	0.429	0.452	0.452
	2008 Lighting	1-100W Inc to 26 W CFL	4000	0.100	0.026	6	296	0.060	0.063	0.360	0.379	1.776	90%	1.598	0.324	0.341	0.341
71	2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	8	180	0.036	0.038	0.282	0.307	1.440	90%	1.296	0.262	0.276	0.276
	2008 Lighting	4-T12 34W (156W) to 4-T8 28W (95W)	4000	0.156	0.095	4	244	0.052	0.055	0.209	0.220	976	90%	878	0.188	0.198	0.198
	Total Lighting									1.337	1.407	6.424		5.762	1.203	1.266	1.266
	2008 Lighting	2-T12 34W (86W) to 2-T8 28W (55W)				18	124	0.027	0.028	0.477	0.502	2.232	90%	2.009	0.429	0.452	0.452
	2008 Lighting	1-60W Inc to 15 W CFL				39	180	0.036	0.038	1.421	1.496	7.020	90%	6.318	1.279	1.347	1.347
	Total Lighting									1.898	1.998	9.252		8.327	1.709	1.799	1.799
	2008 Lighting	1-100W Inc to 26 W CFL	4000	0.100	0.026	94	296	0.060	0.063	5.633	5.930	27.824	90%	25.042	5.070	5.337	5.337
	2008 Lighting	1-T12 34W (42W) to 1-T8 25W (20W)	4000	0.042	0.020	1	88	0.019	0.020	0.109	0.120	88	90%	79	0.017	0.018	0.018
	2008 Lighting	Inc 30W to Led Exit 3 Watts	8760	0.030	0.003	4	237	0.026	0.027	0.103	0.108	946	90%	851	0.092	0.097	0.097
	Total Lighting					5	192	0.041	0.043	0.205	0.216	960	90%	864	0.185	0.194	0.194
74	2008 Lighting	4-T12 34W (156W) to 4-T8 32W (108W)	4000	0.156	0.108					5.960	6.274	29.818		26.836	5.364	5.646	5.646
	2008 Lighting	1-100W Inc to 26 W CFL	4000	0.100	0.026	2	296	0.060	0.063	0.120	0.126	592	90%	533	0.108	0.114	0.114
	2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	24	180	0.036	0.038	0.875	0.921	4.320	90%	3.888	0.787	0.829	0.829
	Total Lighting									0.995	1.047	4.912		4.421	0.895	0.942	0.942
	2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	10	180	0.036	0.038	0.364	0.384	1.800	90%	1.620	0.328	0.345	0.345
	2008 Lighting	2-T12 34W (86W) to 2-T8 25W (49W)	4000	0.086	0.049	34	148	0.032	0.033	1.076	1.132	5.032	90%	4.529	0.968	1.019	1.019
	Total Lighting									1.440	1.516	6.632		6.149	1.296	1.364	1.364
	2008 Lighting	2-T12 34W (86W) to 2-T8 28W (55W)	4000	0.086	0.055	42	124	0.027	0.028	1.113	1.172	5.208	90%	4.687	1.002	1.055	1.055
	2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	12	180	0.036	0.038	0.437	0.460	2.160	90%	1.944	0.394	0.414	0.414
	Total Lighting									1.551	1.632	7.368		6.631	1.395	1.469	1.469
77	2008 Lighting	1-60W Inc to 15 W CFL	4,000	0.060	0.015	41	180	0.036	0.038	1.494	1.573	7.380	90%	6.642	1.345	1.416	1.416
	Total Lighting									1.494	1.573	7.380		6.642	1.345	1.416	1.416
	2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8,760	0.030	0.002	1	249	0.027	0.028	0.027	0.028	249	90%	224	0.024	0.026	0.026
	2008 Lighting	2 - T12 (40W)(86W) to 2 - T8 (28W) (42W)	2,900	0.086	0.042	15	128	0.034	0.035	0.504	0.530	1.914	90%	1.723	0.453	0.477	0.477
	2008 Lighting	4 - T12 (40W)(172W) to 4 - T8 (28W) (84W)	2,900	0.172	0.084	22	255	0.067	0.071	1.477	1.555	5.614	90%	5.053	1.329	1.399	1.399
	Total Lighting									2.008	2.113	7.777		6.999	1.807	1.902	1.902
78	2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8,760	0.030	0.002	1	249	0.027	0.028	0.027	0.028	249	90%	224	0.024	0.026	0.026
	2008 Lighting	2 - T12 (40W)(86W) to 2 - T8 (28W) (42W)	2,900	0.086	0.042	15	128	0.034	0.035	0.504	0.530	1.914	90%	1.723	0.453	0.477	0.477
	2008 Lighting	4 - T12 (40W)(172W) to 4 - T8 (28W) (84W)	2,900	0.172	0.084	22	255	0.067	0.071	1.477	1.555	5.614	90%	5.053	1.329	1.399	1.399
	Total Lighting									2.008	2.113	7.777		6.999	1.807	1.902	1.902
	2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8,760	0.030	0.002	1	249	0.027	0.028	0.027	0.028	249	90%	224	0.024	0.026	0.026
	2008 Lighting	2 - T12 (40W)(86W) to 2 - T8 (28W) (42W)	2,900	0.086	0.042	15	128	0.034	0.035	0.504	0.530	1.914	90%	1.723	0.453	0.477	0.477
	2008 Lighting	4 - T12 (40W)(172W) to 4 - T8 (28W) (84W)	2,900	0.172	0.084	22	255	0.067	0.071	1.477	1.555	5.614	90%	5.053	1.329	1.399	1.399
	Total Lighting									2.008	2.113	7.777		6.999	1.807	1.902	1.902
	2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8,760	0.030	0.002	1	249	0.027	0.028	0.027	0.028	249	90%	224	0.024	0.026	0.026
	2008 Lighting	2 - T12 (40W)(86W) to 2 - T8 (28W) (42W)	2,900	0.086	0.042	15	128	0.034	0.035	0.504	0.530	1.914	90%	1.723	0.453	0.477	0.477
	2008 Lighting	4 - T12 (40W)(172W) to 4 - T8 (28W) (84W)	2,900	0.172	0.084	22	255	0.067	0.071	1.477	1.555	5.614	90%	5.053	1.329	1.399	1.399
	Total Lighting									2.008	2.113	7.777		6.999	1.807	1.902	1.902

Input to Table 4 Question 30c) -- As Filed General Service < 50 kW Third Tranche Results														
Response to Question 30a)														
Customer Number	Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum (kWh) Filed	Filed Free Riders	Total Energy Savings per Annum (kWh) Filed	Total Summer Peak kW Savings per Annum Filed
36		2X4 - T12 (86) to 2X4 T8 (28W) (42W)	3500	0.086	0.042	393	154	0.038	0.040	14.785	15.563	90%	54,470	13,306
		4X4 - T12 (172W) to 4X4 T8 (28W) (84W)	3500	0.172	0.084	95	308	0.075	0.079	7.148	7.524	90%	26,334	6,433
		1 - T12 (45W) to 1 - T8 (22W)	3500	0.045	0.022	8	81	0.020	0.021	0.157	0.166	90%	580	0.142
		4X4 - T8 (114W) to 4X4 T8 (28W) (84W)	3500	0.114	0.084	26	105	0.026	0.027	0.667	0.702	90%	2,457	0.600
		1-75W PAR30 to CFL 23W	3500	0.075	0.023	3	182	0.042	0.044	0.126	0.133	90%	491	0.114
Total Lighting														
37		30W Incandescent Exit to 1.6 W LED Exit	8760	0.030	0.002	5	249	0.027	0.028	0.135	0.142	90%	1,120	0.121
		2 - T12 (86W) to 2- T8 (28W) (42W)	3400	0.086	0.042	55	150	0.038	0.040	2.069	2.178	90%	7,405	1.862
		4 - T12 (172W) to 4- T8 (28W) (84W)	3400	0.172	0.084	5	299	0.075	0.079	0.376	0.396	90%	1,346	0.359
		50W/Par 20 Inc. to 9 W CFL Par 20	3400	0.050	0.009	50	139	0.033	0.035	1.660	1.748	90%	6,273	1.494
		75 BR 30 Inc. to 23 W CFL front entrance	3400	0.075	0.023	17	177	0.042	0.044	0.716	0.754	90%	2,705	0.644
		100 W Inc. to 23 W CFL outdoor pot	3400	0.100	0.023	13	262	0.062	0.066	0.811	0.853	90%	3,063	0.730
		Hal 75W Par38 to CFL 23W	3400	0.075	0.023	7	177	0.042	0.044	0.295	0.310	90%	1,114	0.265
										6.062	6.381	25.585	23,026	5.456
										84.133	90.973	415,580	373,069	81,739
		Total 2008 Demand Reduction								First Year	First Year	First Year	83.33%	75,476
Traffic Lights 2005 Through 2008														
100	2005 Traffic Lights	130 W Inc to 10.5 W LED 12" Lens	2920	0.1300	0.0105	14	349	0.114	0.120	1.589	1.673	90.00%	4,397	1,430
		69 W to 7.5 W LED 8" Lens	2920	0.0690	0.0075	40	180	0.058	0.062	2.337	2.460	90.00%	6,465	2,103
		100 W to 8 W LED Pedestrian 8" Lens	4380	0.1000	0.0080	16	403	0.087	0.092	1.398	1.472	90.00%	5,803	1,259
										5.325	5.605	18,516	16,664	4,792
		Total Traffic Lights 2005								First Year	First Year	First Year	25.00%	4,166
Total Traffic Lights 2006														
	2007 Traffic Lights	130W Inc. to RED 7.5 W LED 12" Lens	4000	0.1300	0.0075	135.0244	490	0.053	0.056	7.175	7.553	90.00%	59,546	6,458
		130W Inc. To AMBER 7.5 W LED 12" Lens	760	0.1300	0.0075	12.4878	93	0.010	0.011	0.126	0.133	90.00%	1,046	0.113
		130W Inc. to GREEN 7.5 W LED 12" Lens	4000	0.1300	0.0075	12.4878	490	0.053	0.056	0.664	0.699	90.00%	5,507	0.597
		69W Inc. To RED 5.5 W LED 8" Lens	4000	0.0690	0.0055	116.2927	254	0.028	0.029	3.203	3.372	90.00%	26,585	2,883
		69W Inc. To AMBER 5.5 W LED 8" Lens	760	0.0690	0.0055	225.561	48	0.005	0.006	1.181	1.243	90.00%	9,797	1,062
		69W Inc. To AMBER 5.5 W LED 8" Lens	4000	0.0690	0.0055	225.561	254	0.028	0.029	6.213	6.540	90.00%	51,563	5,592
		130W Inc. To GREEN 5.5 W LED 8" Lens	438	0.1300	0.0075	6.243902	54	0.006	0.006	0.036	0.038	90.00%	302	0.033
		130W Inc. To Arrow 7.5 W LED 12" Lens	8760	0.1000	0.0080	206.8293	806	0.087	0.092	18.077	19.028	90.00%	150,019	16,269
		130W Inc. To Pedestrian 8 W LED 12" Lens				940.4878				36.675	38.605	336,163	304,365	33,008
		Total Traffic Lights 2007								First Year	First Year	First Year	50.00%	152,182
	2008 Traffic Lights	130W Inc. to RED 7.5 W LED 12" Lens	4000	0.1300	0.0075	16.87805	490	0.053139	0.055936	0.897	0.944	90%	7,443	0.807
		130W Inc. To AMBER 7.5 W LED 12" Lens	760	0.1300	0.0075	1.560976	93	0.010096	0.010628	0.016	0.017	90%	131	0.014
		130W Inc. to GREEN 7.5 W LED 12" Lens	4000	0.1300	0.0075	1.560976	490	0.053139	0.055936	0.083	0.087	90%	688	0.075
		69W Inc. To RED 5.5 W LED 8" Lens	4000	0.0690	0.0055	14.53659	254	0.027546	0.028995	0.400	0.421	90%	3,323	0.360
		69W Inc. To AMBER 5.5 W LED 8" Lens	760	0.0690	0.0055	28.19512	48	0.005234	0.005509	0.148	0.155	90%	1,225	0.133
		69W Inc. To GREEN 5.5 W LED 8" Lens	4000	0.0690	0.0055	28.19512	254	0.027546	0.028995	0.777	0.818	90%	6,445	0.699
		130W Inc. To Arrow 7.5 W LED 12" Lens	438	0.1300	0.0075	0.780488	54	0.005819	0.006125	0.005	0.005	90%	38	0.004
		130W Inc. To Pedestrian 8 W LED 12" Lens	8760	0.1000	0.0080	25.85366	806	0.0874	0.092	2.260	2.379	90%	18,752	2,034
										4.584	4.826	42,273	38,046	4,126
		Total Traffic Lights 2008								First Year	First Year	First Year	83.33%	31,705

Input to Table 4 Question 30c) -- As Filed OPA Conservation Results for 2006 and 2007
Response to Question 30a)

Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per Annum (kWh) Filed	Filed Free Riders Filed	Gross		Net	
										Gross	Gross	Net	Net
2006													
2006 Every Kilowatt Counts (spring)	Energy Star® Compact Fluorescent Light Bulb	6,887	104	0.000		0.000	0.000	719,006	90.00%			647,105	0.000
2006 Every Kilowatt Counts (spring)	Electric Timers	193	183	0.000		0.000	0.000	35,333	90.00%			31,799	0.000
2006 Every Kilowatt Counts (spring)	Programmable Thermostats	84	216	0.050		4.199	0.000	18,141	90.00%			16,327	3.779
2006 Every Kilowatt Counts (spring)	Energy Star® Ceiling Fans	64	141	0.014		0.894	0.000	9,008	90.00%			8,108	0.805
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	74	351	0.359		26.591	0.000	25,998	90.00%			23,398	0.000
2006 Cool Savings Rebate Program	Programmable Thermostats	56	159	0.163		9.198	0.000	8,972	90.00%			8,075	8.278
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	67	369	0.038		2.519	0.000	24,594	90.00%			22,134	2.267
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	26	1,200	0.272		7.024	0.000	30,988	90.00%			27,890	6.322
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	1	900	0.204		0.228	0.000	1,005	90.00%			905	0.205
2006 Every Kilowatt Counts (fall)	Energy Star® Compact Fluorescent Light Bulb	10,211	104	0.000		0.000	0.000	1,066,073	90.00%			959,466	0.000
2006 Every Kilowatt Counts (fall)	Seasonal Light Emitting Diode Light String	2,458	31	0.000		0.000	0.000	75,580	90.00%			68,022	0.000
2006 Every Kilowatt Counts (fall)	Programmable Thermostats	162	522	0.118		19.076	0.000	84,591	90.00%			76,132	17.168
2006 Every Kilowatt Counts (fall)	Dimmers	128	139	0.000		0.000	0.000	17,808	90.00%			16,027	0.000
2006 Every Kilowatt Counts (fall)	Indoor Motion Sensors	46	209	0.000		0.000	0.000	9,608	90.00%			8,647	0.000
2006 Every Kilowatt Counts (fall)	Programmable Baseboard Thermostats	10	1,466	0.000		69.773	0.000	14,150	90.00%			12,735	0.000
Total 2006							0.00	2,140,857			First Year	1,926,771	62.76
									50.00%			963,385	0.00

Input to Table 4 Question 30c -- As Filed OPA Conservation Results for 2006 and 2007

Response to Question 30a)											
Initiative	Measure	Units	Annual Energy Savings per Unit (kW) Filed	Annual Energy Savings per Unit (Summer Peak kW) Filed	Annual Energy Savings per Unit (Winter Peak kW) Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed	Total Energy Savings per (kWh) Filed	Filed Free Riders Filed	Total Summer Peak kW Savings per Annum Filed	Total Winter Peak kW Savings per Annum Filed
2007						Gross	Gross	Gross		Net	Net
2007 Great Refrigerator Roundup	Refrigerator	327	745	0.096	0.117	31,392	38,259	243,517	39%	95,427	12,302
2007 Great Refrigerator Roundup	Freezer	61	515	0.096	0.117	5,856	7,137	31,439	46%	14,362	2,875
2007 Great Refrigerator Roundup	Small Refrigerator	5	490	0.096	0.117	0.480	0.585	2,450	30%	736	0.144
2007 Great Refrigerator Roundup	Small Freezer	2	339	0.096	0.117	0.192	0.234	677	30%	204	0.058
2007 Great Refrigerator Roundup	Window Air Conditioner	1	240	0.098	0.000	0.098	0.000	240	43%	104	0.042
2007 Cool Savings Rebate	ENERGY STAR® Central Air Conditioner	172	152	0.018	0.000	3,149	0.000	26,186	57%	14,978	1,801
2007 Cool Savings Rebate	Programmable Thermostat	244	55	0.151	0.000	36,795	0.000	13,310	27%	3,655	10,105
2007 Cool Savings Rebate	Furnace with Electronically Commutated Motor	270	832	0.440	0.126	118,629	33,971	224,277	59%	132,548	70,110
2007 Cool Savings Rebate	Central Air Conditioning Tune Up	145	235	0.278	0.000	40,436	0.000	34,251	16%	5,382	6,353
2007 Every Kilowatt Counts	15 W CFL	12,322	43	0.001	0.012	12,322	147,862	529,838	78%	413,273	9,611
2007 Every Kilowatt Counts	20 W+ CFLs	2,006	62	0.002	0.015	4,012	30,088	124,565	78%	97,161	3,129
2007 Every Kilowatt Counts	Protect Porchlight CFLs	2,593	43	0.001	0.012	2,593	31,115	111,495	76%	84,736	1,971
2007 Every Kilowatt Counts	Energy Star Ceiling Fan	99	90	0.003	0.025	0.298	2,485	8,925	55%	4,909	0.164
2007 Every Kilowatt Counts	Furnace Filter	400	38	0.021	0.006	8,410	2,403	15,098	55%	8,304	4,626
2007 Every Kilowatt Counts	Solar Lights	1,582	33	0.000	0.000	0.000	0.000	51,887	13%	6,745	0.000
2007 Every Kilowatt Counts	Outdoor Motion Sensor	158	160	0.000	0.000	0.000	0.000	25,288	55%	13,909	0.000
2007 Every Kilowatt Counts	Dimmer Switch	101	24	0.001	0.007	0.070	0.704	2,383	55%	1,311	0.039
2007 Every Kilowatt Counts	Energy Star Light Fixtures	48	123	0.004	0.035	0.191	1,675	5,882	55%	3,235	0.105
2007 Every Kilowatt Counts	SLEDs	3,264	14	0.000	0.006	0.000	19,587	44,723	49%	21,914	0.000
2007 Every Kilowatt Counts	T8	94	37	0.001	0.010	0.094	0.938	3,489	77%	2,697	0.072
2007 Every Kilowatt Counts	Programmable Thermostat	97	75	0.000	0.022	0.000	2,126	7,257	55%	3,991	0.000
2007 Every Kilowatt Counts	Power Bar with Timer	44	72	0.006	0.009	0.263	0.394	3,170	77%	2,441	0.202
2007 Every Kilowatt Counts	Lighting Control Devices	507	72	0.001	0.013	0.507	6,589	36,596	55%	20,128	0.279
2007 Affordable Housing – Pilot	Energy Star Clotheswasher	8	287	0.018	0.031	0.144	0.248	2,296	100%	2,296	0.144
2007 Affordable Housing – Pilot	Energy Star Refrigerator	35	69	0.007	0.009	0.245	0.315	2,415	100%	2,415	0.245
2007 Affordable Housing – Pilot	High Pressure Sodium	10	749			0.000	0.000	7,490	100%	7,490	0.000
2007 Affordable Housing – Pilot	Photo Sensors	2	292	0.000		0.000	0.000	584	100%	584	0.000
2007 Social Housing – Pilot	Custom Retrofit Projects	10				0.000	0.000	61,711	100%	61,711	0.000
Total 2007						266.18	326.71	1,621,442	50.00%	513,318	124.18

APPENDIX “E” – Question 33, part a)

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2005								
Third Tranche								
2005 Water Heater Tune-up	Tank Wrap	195	270	95.00%	50,018	270	95.00%	50,018
2005 Water Heater Tune-up	Faucet Aerator	229	34	90.00%	6,932	22	90.00%	4,534
2005 Water Heater Tune-up	Showerhead	131	545	90.00%	64,309	212	90.00%	24,995
2005 Water Heater Tune-up	Pipe Wrap	195	76	90.00%	13,338	38	90.00%	6,669
2005 Water Heater Tune-up	CFL25	549	174	90.00%	85,973	43	90.00%	21,246
2005 Water Heater Tune-up	Weatherstripping	118	543	90.00%	57,676	543	90.00%	57,676
Total 2005 Water Heater tune-up					278,247			165,138
2005 Fridge Buy-back	Fridge Buy-back	329	1,200	90.00%	355,320	940	90.00%	278,423
2005 Energuide for Houses	Caulking Products	1	362	90.00%	326	362	90.00%	326
2005 Energuide for Houses	Weatherstripping	1	543	90.00%	489	543	90.00%	489
2005 Energuide for Houses	Attic Insulation (R-11 to R-38)	1	4,224	90.00%	3,802	3,935	90.00%	3,542
2005 Energuide for Houses	Fuel Substitution	3	22,035	90.00%	59,494	22,035	70.00%	46,273
2005 Energuide for Houses	Basement Insulation	1	543	90.00%	489	543	90.00%	489
Total 2005 Energuide for Houses					64,599			51,118
2005 Total Residential Third Tranche kWh					698,166			494,679
2005 GS< 50 kW Traffic Lights Third Tranche					16,664			28,167

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2006								
Third Tranche								
2006 Water Heater Tune-up	Tank Wrap	143	270	95.00%	36,680	270	95.00%	36,680
2006 Water Heater Tune-up	Faucet Aerator	146	34	90.00%	4,420	22	90.00%	2,891
2006 Water Heater Tune-up	Showerhead	106	545	90.00%	52,036	212	90.00%	20,225
2006 Water Heater Tune-up	Pipe Wrap	284	76	90.00%	19,426	38	90.00%	9,713
2006 Water Heater Tune-up	CFL25	564	104	90.00%	52,993	43	90.00%	21,827
2006 Water Heater Tune-up								
Total 2006 Water Heater tune-up					165,555			91,335
2006 Fridge Buy-back	Fridge Buy-back	114	1,200	90.00%	123,120	940	90.00%	96,475
2006 Energuide for Houses	B-audits	3	8,215	90.00%	22,180	8,215	90.00%	22,180
2006 Energuide for Houses	Furnace Fans	39	300	90.00%	10,530	300	90.00%	10,530
Total 2006 Energuide for Houses					32,710			32,710
2006 Information Based								
2006 CFL's	Inc. 60W to 15W CFL Giveaways	450	104	90.00%	42,282	43	90.00%	17,415
2006 Residential Third Tranche kWh								237,934
2006 GS < 50 kW Third Tranche					363,666			187,182
2006 Total Third Tranche					139,237			425,117
					502,903			

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2006 OPA Programs								
2006 Every Kilowatt Counts (spring)	Energy Star® Compact Fluorescent Light Bulb	6,887	104	90.00%	647,105	43	70.00%	207,300
2006 Every Kilowatt Counts (spring)	Electric Timers	193	183	90.00%	31,799	219	70.00%	29,598
2006 Every Kilowatt Counts (spring)	Programmable Thermostats	84	216	90.00%	16,327	138	70.00%	8,113
2006 Every Kilowatt Counts (spring)	Energy Star® Ceiling Fans	64	141	90.00%	8,108	90	70.00%	4,016
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	74	351	90.00%	23,398	167	70.00%	8,659
2006 Cool Savings Rebate Program	Programmable Thermostats	56	159	90.00%	8,075	138	70.00%	5,451
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	67	369	90.00%	22,134	254	70.00%	11,850
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	26	1,200	90.00%	27,890	940	70.00%	16,997
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	1	900	90.00%	905	755	70.00%	590
2006 Every Kilowatt Counts (fall)	Energy Star® Compact Fluorescent Light Bulb	10,211	104	90.00%	959,466	43	70.00%	307,364
2006 Every Kilowatt Counts (fall)	Seasonal Light Emitting Diode Light String	2,458	31	90.00%	68,022	14	70.00%	23,571
2006 Every Kilowatt Counts (fall)	Programmable Thermostats	162	522	90.00%	76,132	138	70.00%	15,651
2006 Every Kilowatt Counts (fall)	Dimmers	128	139	90.00%	16,027	24	70.00%	2,125
2006 Every Kilowatt Counts (fall)	Indoor Motion Sensors	46	209	90.00%	8,647	64	70.00%	2,060
2006 Every Kilowatt Counts (fall)	Programmable Baseboard Thermostats	10	1,466	90.00%	12,735	75	70.00%	507
2006 Total OPA					1,926,771			643,854

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2007								
Third Tranche								
2007 Water Heater Tune-up	Tank Wrap	110	270	95.00%	28,215	270	95.00%	28,215
2007 Water Heater Tune-up	Faucet Aerator	41	34	90.00%	1,241	22	90.00%	812
2007 Water Heater Tune-up	Showerhead	78	545	90.00%	38,291	212	90.00%	14,882
2007 Water Heater Tune-up	Pipe Wrap	108	76	90.00%	7,387	38	90.00%	3,694
2007 Water Heater Tune-up	CFL25	207	104	90.00%	19,450	43	90.00%	8,011
2007 Water Heater Tune-up	Outlet Insulation	22	18	90.00%	358	18	90.00%	358
Total 2007 Water Heater tune-up					94,942			55,972
2007 Fridge Buy-back	Fridge Buy-back	49	1,200	90.00%	52,920	940	90.00%	41,467
2007 Energyguide for Houses								
Total 2007 Energyguide for Houses								
2007 Information Based								
2007 CFL's	Inc. 60W to 15W CFL Project Porchlight	3,000	104	90.00%	281,880	43	90.00%	116,100
2007 CFL's	Inc. 60W to 15W CFL Various promotions	1,800	104	90.00%	169,128	43	90.00%	69,660
2007 LED's	Inc (125W) to LED (3.5W) (New)	3,225	19	90.00%	54,732	14	90.00%	39,764
Total 2007 CFL's and LED's		8,025						
Other Program Costs such as advertising, promotions, education, etc.								
Total 2007 Information Based					505,740			225,524
2007 Residential Third Tranche kWh					653,602			322,964

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2007 Demand Reduction Residential Third Tranche								
2007 Lighting MURB's	Inc 100 watt 23 W CFL	120	179	90.00%	19,293	162	90.00%	17,464
2007 Lighting MURB's	Inc 60 watt 13 W CFL	400	109	90.00%	39,254	99	90.00%	35,532
Q Institutional Total					58,548			52,996
2007 Lighting MURB's	Inc 60 watt 13 W CFL	210	49	90.00%	9,313	99	90.00%	18,654
2007 Lighting MURB's	Inc 100 watt 23 W CFL	210	137	90.00%	25,869	162	90.00%	30,561
2007 Appliances	Refrigerator	35	74	90.00%	2,331	69	90.00%	2,167
2007 Appliances	Range/Oven	35	55	90.00%	1,733	55	90.00%	1,733
M1 Institutional Total					39,246			53,115
Building Design Eng Calculations	Thermal Envelope	1	108,736	70.00%	76,115	108,736	70.00%	76,115
Custom Project Reference Appendix 10-C Input Assumptions Page 22 of 25								
Building Design Eng Calculations	Programmable Thermostat H & C	1	6,783	70.00%	4,748	77,035	90.00%	69,332
Custom Project Reference Appendix 10-C Input Assumptions Page 24 of 25								
Building Design Eng Calculations	Energy Star Air Source Heat Pump	1	99,410	70.00%	69,587	99,410	70.00%	69,587
Custom Project Reference Appendix 10-C Input Assumptions Page 23 of 25								
2007 Lighting	High Pressure Sodium -- Photocell	12	377	70.00%	3,164	377	70.00%	3,164
Custom Project Reference Appendix 10-C Input Assumptions Page 2 of 25								
2007 Appliances Unique	High Efficiency Clothes Washer/Dryer	8	286	70.00%	1,600	251	70.00%	1,406
Custom Project Reference Appendix 10-C Input Assumptions Page 2 of 25								
M2 Institutional Total					155,215			219,603
2007 Demand Reduction Residential Third Tranche								
					253,008			325,714
2007 GS< 50 kW Third Tranche					274,329			374,099
2007 GS< 50 kW Traffic Lights Third Tranche Only					304,365			304,365
Total 2007 Third Tranche					1,485,304			1,327,141

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA							
Response to Question 33(a)							
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership
							Adjusted Net kWh OPA 2008 Measures List (When Available)
2007 OPA Programs							
2007 Great Refrigerator Roundup	Refrigerator	327	745	39%	95,427	940	215,235
2007 Great Refrigerator Roundup	Freezer	61	515	46%	14,362	755	32,251
2007 Great Refrigerator Roundup	Small Refrigerator	5	490	30%	736	940	3,291
2007 Great Refrigerator Roundup	Small Freezer	2	339	30%	204	755	1,057
2007 Great Refrigerator Roundup	Window Air Conditioner	1	240	43%	104	96	67
2007 Cool Savings Rebate	ENERGY STAR® Central Air Conditioner	172	152	57%	14,978	167	20,113
2007 Cool Savings Rebate	Programmable Thermostat	244	55	27%	3,655	138	23,539
2007 Cool Savings Rebate	Furnace with Electronically Commutated Motor	270	832	59%	132,548	807	152,303
2007 Cool Savings Rebate	Central Air Conditioning Tune Up	145	235	16%	5,382	254	25,861
2007 Every Kilowatt Counts	15 W CFL	12,322	43	78%	413,273	43	370,886
2007 Every Kilowatt Counts	20 W+ CFLs	2,006	62	78%	97,161	53	73,856
2007 Every Kilowatt Counts	Project Porchlight CFLs	2,593	43	76%	84,736	43	78,047
2007 Every Kilowatt Counts	Energy Star Ceiling Fan	99	90	55%	4,909	90	6,248
2007 Every Kilowatt Counts	Furnace Filter	400	38	55%	8,304	38	10,569
2007 Every Kilowatt Counts	Solar Lights	1,582	33	13%	6,745	5	5,315
2007 Every Kilowatt Counts	Outdoor Motion Sensor	158	160	55%	13,909	160	17,702
2007 Every Kilowatt Counts	Dimmer Switch	101	24	55%	1,311	24	1,668
2007 Every Kilowatt Counts	Energy Star Light Fixtures	48	123	55%	3,235	123	4,117
2007 Every Kilowatt Counts	SLEDs	3,264	14	49%	21,914	14	31,306
2007 Every Kilowatt Counts	T8	94	37	77%	2,687	37	2,443
2007 Every Kilowatt Counts	Programmable Thermostat	97	75	55%	3,991	75	5,080
2007 Every Kilowatt Counts	Power Bar with Timer	44	72	77%	2,441	72	2,219
2007 Every Kilowatt Counts	Lighting Control Devices	507	72	55%	20,128	72	25,617
2007 Affordable Housing – Pilot	Energy Star Clotheswasher	8	287	100%	2,296	159	1,272
2007 Affordable Housing – Pilot	Energy Star Refrigerator	35	69	100%	2,415	69	2,408
2007 Affordable Housing – Pilot	High Pressure Sodium	10	749	100%	7,490	749	7,490
2007 Affordable Housing – Pilot	Photo Sensors	2	292	100%	584	292	584
2007 Social Housing – Pilot	Custom Retrofit Projects	10		100%	61,711		0
2007 Total OPA					1,018,333		1,120,547

Input Assumptions and Comparison Table for Residential Mass Market Measures for Third Tranche and OPA								
Response to Question 33(a)								
Program	Efficient Measure	Participants As Filed	As Filed Per Unit kWh Savings	As Filed Free Ridership	Net kWh per Filed LRAM Claim	kWh Savings Per Unit 2008 Measures List (When Available)	Free Ridership	Adjusted Net kWh OPA 2008 Measures List (When Available)
2008								
Third Tranche								
2008 Information Based								
2008 CFL's	Inc. 60W to 15W CFL Project Porchlight	17,000	104	90.00%	1,597,320	43	90.00%	657,900
2008 CFL's	Inc. 60W to 15W CFL Various promotions	872	104	90.00%	81,933	43	90.00%	33,746
Total 2008 CFL's and LED's								
Other Program Costs such as advertising, promotions, education, etc.								
Total 2008 Information Based					1,679,253			691,646
2008 Residential Third Tranche kWh					1,679,253			691,646
2008 Demand Reduction Residential Third Tranche								
2008 Thermal envelope	Attic Insulation for 40 Units	40	512	90.00%	18,432	3,935	90.00%	141,660
2008 Thermal envelope	Attic Insulation for Rec Centre	1	1,168	90.00%	1,051	3,935	90.00%	3,542
Total ZL Institutional					19,483			145,202
2008 Lighting Calculated Customer Data	Inc 60W to 13W CFL Individual Suites							
Total K Institutional		950	51	90.00%	44,003	98.7	90.00%	84,389
2008 Lighting MURB's	1-100W Inc to 23 W CFL	200	179	90.00%	32,155	161.7	90.00%	29,106
2008 Lighting MURB's	1-60W Inc to 15 W CFL	550	104	90.00%	51,678	94.5	90.00%	46,778
Total X Institutional					83,833			75,884
2008 Lighting MURB's	1-60W Inc to 13 W CFL	210	63	90.00%	11,839	98.7	90.00%	18,654
2008 Lighting MURB's	1-40W Inc to 9 W CFL	144	72	90.00%	9,321	65.1	90.00%	8,437
2008 Controls	Motion Sensors controls 432W	1	583	90.00%	525	265	90.00%	238
Total O Commercial					21,685			27,329
2008 Lighting MURB's	2 - T12 34W (86W) to 2- T8 28W (55W)	11	72	90.00%	712	69.3	90.00%	686
2008 Controls	1-40W Inc to 9 W CFL	52	72	90.00%	3,366	65.1	90.00%	3,047
Total T Commercial					4,078			3,733
2008 Demand Reduction Residential Third Tranche					173,081			336,536
2008 GS< 50 kW Third Tranche								
2008 GS< 50 kW Traffic Lights Third Tranche Only					373,069			432,440
Total 2008 Third Tranche					38,046			38,046
					2,263,448			1,498,668
Total Residential Third Tranche					3,820,777			2,409,473
Total GS< 50 kW Third Tranche					1,145,708			1,364,298
Total Residential OPA					2,945,103			1,764,400

APPENDIX “F” – Question 33, part b)

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Third Tranche

Response to Question 33(b)

Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Filed Free Riders Filed	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Gross	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2005					Net									
2005 Water Heater Tune-up	Tank Wrap	195	270	95.00%	50,018	270	0.021	0.050	52,650	4,105	9,778	50,018	3,900	9,290
2005 Water Heater Tune-up	Faucet Aerator	229	34	90.00%	6,932	22	0.002	0.004	5,038	0.393	0.936	4,534	0.354	0.842
2005 Water Heater Tune-up	Showerhead	131	545	90.00%	64,309	212	0.017	0.039	27,772	2,165	5,158	24,995	1,949	4,642
2005 Water Heater Tune-up	Pipe Wrap	195	76	90.00%	13,338	38	0.003	0.007	7,410	0.578	1,376	6,669	0.520	1,239
2005 Water Heater Tune-up	CFL25	549	174	90.00%	85,973	43	0.001	0.012	23,607	0.744	6,619	21,246	0.670	5,957
2005 Water Heater Tune-up	Weatherstripping	118	543	90.00%	57,676	543	0.019	0.161	64,085	2,199	18,957	57,676	1,979	17,061
Total 2005 Water Heater tune-up					278,247			180,562	10,184	First Year	42,824	165,138	9,371	39,031
					69,562						25.00%	41,284		
2005 Fridge Buy-back	Fridge Buy-back	329	1,200	90.00%	355,320	940	0.096	0.117	309,359	31,584	38,493	278,423	28,426	34,644
					88,830					First Year		69,606		
2005 Energuide for Houses	Caulking Products	1	362	90.00%	325	362	0.012	0.107	362	0.012	0.107	325	0.011	0.096
2005 Energuide for Houses	Weatherstripping	1	543	90.00%	489	543	0.019	0.161	543	0.019	0.161	489	0.017	0.145
2005 Energuide for Houses	Attic Insulation (R-11 to R-38)	1	4,224	90.00%	3,802	3,935	0.135	1.164	3,935	0.135	1.164	3,542	0.122	1,048
2005 Energuide for Houses	Fuel Substitution	3	22,035	90.00%	59,494	22,035	0.756	6.518	66,104	2,268	19,554	46,273	1,588	13,688
2005 Energuide for Houses	Basement Insulation	1	543	90.00%	489	543	0.019	0.161	543	0.019	0.161	489	0.017	0.145
Total 2005 Energuide for Houses					64,599			71,487	2,453	21,147	51,118	12,779	1,754	15,121
					16,150					First Year				
2005 Information Based	CFL's	0			0.000									
Total 2005					698,166			561,408	44,221	102,464	494,679	123,670	39,550	88,796
					174,541					First Year	25.00%			

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Third Tranche														
Response to Question 33(b)														
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filled	Filled Free Riders Filled	Total Energy Savings per Annum Filled	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2006					Net			Gross	Gross	Gross		Net	Net	Net
2006 Water Heater Tune-up	Tank Wrap	143	270	95.00%	36,680	0.021	0.050	38,610	3,010	7,171	95.00%	36,680	2,860	6,812
2006 Water Heater Tune-up	Faucet Aerator	146	34	90.00%	4,420	0.002	0.004	3,212	0.250	0.597	90.00%	2,891	0.225	0.537
2006 Water Heater Tune-up	Showerhead	106	545	90.00%	52,036	0.017	0.039	22,472	1,752	4,174	90.00%	20,225	1,577	3,756
2006 Water Heater Tune-up	Pipe Wrap	284	76	90.00%	19,426	0.003	0.007	10,792	0.841	2,004	90.00%	9,713	0.757	1,804
2006 Water Heater Tune-up	CFL25	564	104	90.00%	52,953	0.001	0.012	24,252	0.764	6,799	90.00%	21,827	0.688	6,119
2006 Water Heater Tune-up														
2006 Water Heater Tune-up					165,555			99,338	6,618	20,745		91,335	6,107	19,029
Total 2006 Water Heater tune-up				50.00%	82,777					First Year	50.00%	45,667		
2006 Fridge Buy-back														
2006 Fridge Buy-back	Fridge Buy-back	114	1,200	90.00%	123,120	0.096	0.117	107,194	10,944	13,338	90.00%	96,475	9,850	12,004
				50.00%	61,560					First Year	50.00%	48,237		
2006 Energuide for Houses														
2006 Energuide for Houses	B-audits	3	8,215	90.00%	22,180	0.282	2,430	24,644	0.846	7,290	90.00%	22,180	0.761	6,561
2006 Energuide for Houses	Furnace Fans	39	300	90.00%	10,530	0.010	0.089	11,700	0.401	3,461	90.00%	10,530	0.361	3,115
Total 2006 Energuide for Houses					32,710			36,344	1,247	10,751		32,710	1,122	9,676
				50.00%	16,355					First Year	50.00%	16,355		
2006 Information Based														
2006 CFL's	Inc. 60W to 15W CFL Giveaways	450	104	90.00%	42,282	0.001	0.012	19,350	0.610	5,425	90.00%	17,415	0.549	4,883
				50.00%	21,141					First Year	50.00%	8,708		
Total 2006					363,666			262,226	19,42	50,26	50.00%	237,934	17,63	45,59
				50.00%	181,833					First Year	50.00%	118,967		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Third Tranche															
Response to Question 33(b)															
	Measure	Units	Annual Energy Savings per Unit (kWh) Filled	Filed Free Riders Filled	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2007					Net				Net				Net		Net
2007 Water Heater Tune-up	Tank Wrap	110	270	95.00%	28,215	0.021	0.050	5,516	29,700	2,316	5,516	95.00%	28,215	2,200	5,240
2007 Water Heater Tune-up	Faucet Aerator	41	34	90.00%	1,241	0.002	0.004	0.168	902	0.070	0.168	90.00%	812	0.063	0.151
2007 Water Heater Tune-up	Showerhead	78	545	90.00%	38,291	0.017	0.039	1,289	16,536	1,289	3,071	90.00%	14,882	1,160	2,764
2007 Water Heater Tune-up	Pipe Wrap	108	76	90.00%	7,387	0.003	0.007	0.320	4,104	0.320	0.762	90.00%	3,694	0.288	0.686
2007 Water Heater Tune-up	CFL25	207	104	90.00%	19,450	0.001	0.012	2,496	8,901	0.281	2,496	90.00%	8,011	0.252	2,246
2007 Water Heater Tune-up	Outlet Insulation	22	18	90.00%	358	0.001	0.005	0.112	398	0.013	0.112	90.00%	358	0.011	0.100
Total 2007 Water Heater tune-up					94,942			12,124	60,541	4,288	12,124		55,972	3,975	11,188
				50.00%	47,471			First Year			First Year	50.00%	27,986		
2007 Fridge Buy-back	Fridge Buy-back	49	1,200	90.00%	52,920	0.096	0.117	5,733	46,075	4,704	5,733	90.00%	41,467	4,234	5,160
				50.00%	26,460			First Year			First Year	50.00%	20,734		
2007 Energuide for Houses															
Total 2007 Energuide for Houses				50.00%	0			First Year			First Year	50.00%	0		
2007 Information Based															
2007 CFL's	Inc. 60W to 15W CFL Project Porchlight	3,000	104	90.00%	281,880	0.001	0.012	4,066	129,000	4,066	36,167	90.00%	116,100	3,659	32,550
2007 CFL's	Inc. 60W to 15W CFL Various promotions	1,800	104	90.00%	169,128	0.001	0.012	2,439	77,400	2,439	21,700	90.00%	69,660	2,195	19,530
2007 LED's	Inc (125W) to LED (3.5W) (New)	3,225	19	90.00%	54,732	0.000	0.006	0.000	44,183	0.000	19,975	90.00%	39,764	0.000	17,977
Total 2007 CFL's and LED's		8,025													
Other Program Costs such as advertising, promotions, education, etc.															
Total 2007 Information Based				50.00%	505,740			77,842	250,583	6,505	77,842		225,524	5,855	70,058
					252,870			First Year			First Year	50.00%	112,762		
					653,602			95.70	357,198	15.50	95.70		322,964	14.06	86.41
Total 2007				50.00%	326,801			First Year			First Year	50.00%	161,482		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Third Tranche

Response to Question 33(b)															
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filled	Filled Free Riders Filled	Total Energy Savings per Annum (kWh) Filled	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2008					Net				Gross	Gross	Gross		Net	Net	Net
Total 2008 Water Heater tune-up	Utility Costs														
				83.33%		0					Last Year	83.33%	0		
2008 Fridge Buy-back	Utility Costs														
				83.33%		0					Last Year	83.33%	0		
2008 Energuide for Houses															
Total 2008 Energuide for Houses											Last Year				
2008 Information Based						0							0		
2008 CFL's	Inc. 60W to 15W CFL Project Porchlight	17,000	104	90.00%	1,597,320	43	0.001	0.012	731,000	23,039	204,947	90.00%	657,900	20,735	184,452
2008 CFL's	Inc. 60W to 15W CFL Various promotions	872	104	90.00%	81,933	43	0.001	0.012	37,496	1,182	10,513	90.00%	33,746	1,064	9,461
Total 2008 CFL's and LED's															
Other Program Costs such as advertising, promotions, education, etc.															
Total 2008 Information Based				83.33%	1,679,253				768,496	24,221	215,460	83.33%	691,646	21,799	193,914
					1,399,378						Last Year		576,370		
Total 2008				83.33%	1,679,253				768,496	24,22	215,46		691,646	21,80	193,91
					1,399,372						Last Year	83.33%	576,370		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Demand Reduction Third Tranche															
Response to Question 33(b)															
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Filed Free Riders Filed	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2007					Net				Gross	Gross	Gross		Net	Net	Net
2007 Lighting MURB's	Inc 100 watt 23 W CFL	120	179	90.00%	19,293	162	0.001	0.045	19,404	0.130	5,440	90.00%	17,464	0.117	4,896
2007 Lighting MURB's	Inc 60 watt 13 W CFL	400	109	90.00%	39,254	99	0.001	0.028	39,480	0.264	11,069	90.00%	35,532	0.238	9,962
O Institutional Total					58,548				58,884	0.394	16,509		52,996	0.355	14,858
2007 Lighting MURB's	Inc 60 watt 13 W CFL	210	49	90.00%	9,313	99	0.001	0.028	20,727	0.139	5,811	90.00%	18,654	0.125	5,230
2007 Lighting MURB's	Inc 100 watt 23 W CFL	210	137	90.00%	25,869	162	0.001	0.045	33,957	0.227	9,520	90.00%	30,561	0.204	8,568
2007 Appliances	Refrigerator	35	74	90.00%	2,331	69	0.007	0.009	2,408	0.245	0.315	90.00%	2,167	0.221	0.284
2007 Appliances	Range/Oven	35	55	90.00%	1,733	55	0.000	0.001	1,925	0.000	0.044	90.00%	1,733	0.000	0.040
M1 Institutional Total					39,246				59,017	0.611	15,690		53,115	0.550	14,121
Building Design Eng Calculations	Thermal Envelope	1	108,736	70.00%	76,115	108,736	3.731	31,132	108,736	3.731	31,132	70.00%	76,115	2,612	21,792
Custom Project Reference Appendix 10-C Input Assumptions Page 22 of 25															
Building Design Eng Calculations	Programmable Thermostat H & C	1	6,783	70.00%	4,748	77,035	5.436	21,924	77,035	5.436	21,924	90.00%	69,332	4,892	19,732
Custom Project Reference Appendix 10-C Input Assumptions Page 24 of 25															
Building Design Eng Calculations	Energy Star Air Source Heat Pump	1	99,410	70.00%	69,587	99,410	4.690	28,104	99,410	4.690	28,104	70.00%	69,587	3,283	19,673
Custom Project Reference Appendix 10-C Input Assumptions Page 23 of 25															
2007 Lighting	High Pressure Sodium -- Photocell	12	377	70.00%	3,164	377	0.086	0.053	4,520	1.029	0.631	70.00%	3,164	0.720	0.442
Custom Project Reference Appendix 10-C Input Assumptions Page 2 of 25															
2007 Appliances Unique	High Efficiency Clothes Washer/Dryer	8	286	70.00%	1,600	251	0.023	0.035	2,008	0.184	0.280	70.00%	1,406	0.129	0.196
Custom Project Reference Appendix 10-C Input Assumptions Page 2 of 25															
M2 Institutional Total					155,215				291,709	15,071	82,070		219,603	11,637	61,834
Total 2007 Demand Reduction				50.00%	253,008		First Year	50.00%	409,610	16,075	114,270	First Year	325,714	12,541	90,813
					126,504				204,805			50.00%	162,857		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential Demand Reduction Third Tranche														
Response to Question 33(b)														
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filed	Filed Free Riders Filed	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2008					Net				Gross	Gross		Net	Net	Net
2008 Thermal envelope	Attic Insulation for 40 Units	40	512	90.00%	18,432	0.135	1.164	157,400	5,401	46,561	90.00%	141,660	4,861	41,905
2008 Thermal envelope	Attic Insulation for Rec Centre	1	1,168	90.00%	1,051	0.135	1.164	3,935	0.135	1,164	90.00%	3,542	0.122	1,048
Total ZL Institutional					19,483			161,335	5,536	47,725		145,202	4,982	42,953
2008 Lighting Calculated Customer Data	Inc 60W to 13W CFL Individual Suites	950	51	90.00%	44,003	98.7	0.001	93,765	0.627	26,288	90.00%	84,389	0.585	23,660
Total K Institutional		200	179	90.00%	32,155	161.7	0.001	32,340	0.216	9,067	90.00%	29,106	0.195	8,160
2008 Lighting MURB's	1-100W Inc to 23 W CFL	550	104	90.00%	51,678	94.5	0.001	51,975	0.348	14,572	90.00%	46,778	0.313	13,115
2008 Lighting MURB's	1-60W Inc to 15 W CFL				83,833			84,315	0.564	23,639		75,884	0.508	21,275
Total X Institutional		210	63	90.00%	11,839	98.7	0.001	20,727	0.139	5,811	90.00%	18,654	0.125	5,230
2008 Lighting MURB's	1-40W Inc to 9 W CFL	144	72	90.00%	9,321	65.1	0.000	9,374	0.063	2,628	90.00%	8,437	0.056	2,365
2008 Lighting MURB's	1-60W Inc to 13 W CFL				525	265	0.002	265	0.002	0.074	90.00%	238	0.002	0.067
2008 Controls	Motion Sensors controls 432W	1	583	90.00%	21,685			30,366	0.203	8,514		27,329	0.183	7,662
Total O Commercial		11	72	90.00%	712	69.3	0.000	762	0.005	0.214	90.00%	686	0.005	0.192
2008 Lighting MURB's	2 - T12 34W (86W) to 2- T8 28W (55W)	52	72	90.00%	3,366	65.1	0.000	3,385	0.023	0.949	90.00%	3,047	0.020	0.854
2008 Controls	1-40W Inc to 9 W CFL				4,078			4,148	0.028	1.163		3,733	0.025	1.047
Total T Commercial														
Total 2008 Demand Reduction				83.33%	173,081			373,929	6,958	107,329		336,536	6,262	96,596
					144,234			311,607		Last Year	83.33%	280,446		
Total 2007 and 2008 Demand Reduction					426,089			783,539	23,034	221,599		662,250	18,803	187,410
				83.33%	355,074			652,949		Last Year	83.33%	551,875		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche																
Response to Question 33(b)																
Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filed	Filled Free Riders	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Summer Peak kW) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2006 GS<50 kW Projects																
46	2006 Lighting	4-T12's TO 3-T8, 3X28W (90W)	3.900	0.144	0.090	27	211	90.00%	0.086	0.071	1,193	1,441	90.00%	7,894	1,074	1,297
46	2006 Lighting	4-T12's TO 2-T5's 2X28W (58W)	3.900	0.144	0.058	4	335	90.00%	0.041	0.044	877.1	1,762	90.00%	1,566	0.216	0.261
46	2006 Lighting	2-T12 (72W) TO 1-T5 (28W) (30W)	3.900	0.072	0.030	4	164	90.00%	0.041	0.034	997	0.136	90.00%	897	0.122	0.147
46	2006 Lighting	2-T12 (72W) TO 2-T5 (28W) (59W)	3.900	0.072	0.059	3	51	90.00%	0.023	0.019	414	0.056	90.00%	372	0.051	0.061
46	2006 Lighting	1-T12 (40W) TO 1-T8 (28W) (32W)	8.760	0.040	0.032	8	70	90.00%	0.016	0.013	783	0.107	90.00%	705	0.096	0.116
46	2006 Lighting	2-T12 8ft (180W) TO 4-T8 (28W) (111W)	3.900	0.180	0.111	86	269	90.00%	0.046	0.056	29,085	3,956	90.00%	26,177	3,560	4,300
46	2006 Lighting	1-Halogen (90W) TO 1-CFL (23W)	3.900	0.090	0.023	31	261	90.00%	0.041	0.013	9,243	1,257	90.00%	8,318	1,131	1,367
46	2006 Lighting	1-Halogen (45W) TO 1-CFL (23W)	3.900	0.045	0.023	59	86	90.00%	0.013	-0.030	5,776	0.786	90.00%	5,198	0.707	0.854
46	2006 Lighting	2-T5's 2X28W (58W) --NEW	3.900	0.000	0.058	3	-226	90.00%	-0.037	-0.030	-668	-0.091	90.00%	-601	-0.082	-0.099
46	2006 Lighting	2-T12 8ft (180W) -- Removal	3.900	0.180	0.000	5	702	90.00%	0.104	0.126	3,827	0.521	90.00%	3,444	0.468	0.566
46	2006 Lighting	2-T12 (75W) TO 2-T8 (28W) (60W)	3.900	0.075	0.060	11	59	90.00%	0.024	0.020	1,615	0.220	90.00%	1,454	0.198	0.239
46	2006 Lighting	1-T8's (28W) (32W) --NEW	3.900	0.000	0.032	6	-129	90.00%	-0.018	-0.015	-668	-0.091	90.00%	-601	-0.082	-0.099
46	2006 Lighting	Incandescent Floods (150W) --Removal	3.900	0.150	0.000	2	585	90.00%	0.091	0.110	1,335	0.182	90.00%	1,202	0.163	0.197
46	2006 Lighting	2-T12 (110W) to 1-T8 (32W)	8.760	0.110	0.032	1	683	90.00%	0.032	0.039	236	0.032	90.00%	212	0.029	0.035
46	2006 Lighting	Inc 30W Exit to 3Watt LED	8.760	0.030	0.003	2	149	90.00%	0.020	0.024	298	0.041	90.00%	268	0.036	0.044
46	2006 Lighting	Inc 100W TO 23 Watt CFL	1.500	0.100	0.023	13	116	90.00%	0.056	0.047	4,454	0.606	90.00%	4,009	0.545	0.659
46	2006 Lighting	MVR 1000 Watt High Bay -- Removal	2,500	1.100	0.000	4	2,750	90.00%	0.804	0.666	19,580	2,663	90.00%	17,622	2,397	2,895
46	Total Lighting					269		56,029			86,841	11,812	14,267		10,631	12,840
46	2006 Sensor	Manual TO Sensor Laundry (420W)				1	491	90.00%	0.123	0.102	748	1,084	90.00%	673	0.092	0.111
46	2006 Photo Cell	T8 (32 Watt with Photo)				1	142	90.00%	0.017	0.028	124	0.028	70.00%	87	0.020	0.012
46	Custom Project	Reference Appendix 10-C Input Assumptions Page 2 of 25						128								
46	Total Project							56,599			87,713	11,941	14,407		78,917	10,742
47	2006 Lighting	4-T12 (153W) to 3-T5 (88W)	3000	0.153	0.088	155	195	90.00%	0.048	0.040	45,260	6,156	90.00%	40,734	5,540	6,692
47	2006 Lighting	4-T12 (153W) to 3-T5 (88W)	8760	0.153	0.088	25	569	90.00%	0.048	0.040	7,300	0.993	90.00%	6,570	0.894	1,079
47	2006 Lighting	LED Exit Lights -- Single Sided	8760	0.015	0.002	12	114	90.00%	0.024	0.020	1,787	0.243	90.00%	1,608	0.219	0.264
47	2006 Lighting	LED Exit Lights -- Double Sided	8760	0.03	0.004	7	228	90.00%	0.024	0.020	1,042	0.142	90.00%	938	0.128	0.154
47	Total Lighting							42,679			55,389	7,534	9,100		49,851	6,780
48	2006 Lighting	2-T12 34W (86W) to 2-T8 28W (55W)	4000	0.086	0.055	50	124	90.00%	0.018	0.022	6,600	0.898	90.00%	5,940	0.808	0.976
48	Total Lighting					50		5,580			6,600	0.898	1,084		5,940	0.808
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W)	8760	0.164	0.045	2	1,042	90.00%	0.073	0.060	889	0.121	90.00%	800	0.109	0.131
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W)	2600	0.164	0.045	13	309	90.00%	0.060	0.073	5,777	0.786	90.00%	5,199	0.707	0.854
51	2006 Lighting	T12-2X4 (82W) to T8-2x4 (28W) (45W)	2600	0.082	0.045	12	96	90.00%	0.024	0.020	1,742	0.237	90.00%	1,568	0.213	0.258
51	2006 Lighting	T12-2X4 (82W) Removed/Replacement	2600	0.082	0	20	213	90.00%	0.059	0.048	7,128	0.970	90.00%	6,415	0.873	1,054
51	2006 Lighting	T12-4X4 (164W) Removed/Replacement	2600	0.164	0	2	428	90.00%	0.108	0.089	1,311	0.178	90.00%	1,180	0.161	0.194
51	2006 Lighting	T12-2X4 (82W) to T8-2x4 (28W) (45W)	2600	0.16	0.045	24	299	90.00%	0.090	0.090	13,094	1,781	90.00%	11,785	1,603	1,936
51	2006 Lighting	T8-2x4 (28W) (45W) New/Replacement	2600	0	0.045	24	-117	90.00%	-0.035	-0.029	-5,069	-0.689	90.00%	-4,562	-0.620	-0.749
51	2006 Lighting	T12-2X4 (82W) to T8-2x4 (28W) (45W) Wash	780	0.082	0.045	1	29	90.00%	0.020	0.024	145	0.020	90.00%	131	0.018	0.021
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W) Wash	780	0.164	0.045	6	93	90.00%	0.073	0.060	2,666	0.363	90.00%	2,400	0.326	0.394
51	2006 Lighting	T12-2X4 (82W) to T8-2x4 (28W) (45W) Lunch	780	0.082	0.045	1	29	90.00%	0.024	0.020	145	0.020	90.00%	131	0.018	0.021
51	2006 Lighting	T12-2X4 (82W) Removed/Replacement Lunch	780	0.082	0	1	64	90.00%	0.059	0.048	356	0.048	90.00%	321	0.044	0.053
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W) Board an	100	0.164	0.045	5	12	90.00%	0.073	0.060	2,222	0.302	90.00%	2,000	0.272	0.329
51	2006 Lighting	T12-2X4 (82W) to T8-2x4 (28W) (45W) office stor	50	0.082	0.045	1	2	90.00%	0.020	0.024	145	0.020	90.00%	131	0.018	0.021
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W) Kitchen	730	0.164	0.045	6	87	90.00%	0.060	0.073	2,666	0.363	90.00%	2,400	0.326	0.394
51	2006 Lighting	F20T12CW (26W) to F20T18 (18W)	365	0.026	0.018	1	3	90.00%	0.005	0.006	35	0.005	90.00%	32	0.004	0.005
51	2006 Lighting	T12-4X4 (164W) to T8-2x4 (28W) (45W) LR & BR	365	0.164	0.045	9	43	90.00%	0.073	0.060	4,000	0.544	90.00%	3,600	0.490	0.591
51	2006 Lighting	Inc 30W Exit TO 2W LED	8760	0.03	0.002	4	245	90.00%	0.024	0.020	596	0.081	90.00%	536	0.073	0.088
51	2006 Lighting	Inc 60W to 13W CFL Range Hood	365	0.06	0.013	1	17	90.00%	0.034	0.028	207	0.028	90.00%	186	0.025	0.031
51	2006 Lighting	Inc 60W to 13W CFL LR Table Lamp	1095	0.06	0.013	2	51	90.00%	0.034	0.028	414	0.056	90.00%	372	0.051	0.061
51	2006 Lighting	Inc 40W to 13W CFL -- Washroom	730	0.04	0.013	4	20	90.00%	0.020	0.016	475	0.065	90.00%	428	0.058	0.070
51	Total Lighting					139		17,623			38,946	5,297	6,398		35,051	4,768
51	2006 Controls	Motion Sensors (3) controlling 495 Watts				1	386	90.00%	0.121	0.101	739	1,011	90.00%	665	0.090	0.109
51	Total Project							17,971			39,685	5,398	6,520		35,717	4,888

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche																		
Response to Question 33(b)																		
Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filed	Filed Free Riders	Total Energy Savings per Annum (kWh) Filed	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
								Net				Gross	Gross	Gross			Net	Net
4	2006 Lighting				9	578	90.00%	4,683	212	0.029	0.035	1,908	0.260	0.313	90.00%	1,717	0.234	0.282
4	2006 Lighting				8	289	90.00%	2,081	132	0.018	0.022	1,056	0.144	0.173	90.00%	950	0.129	0.156
4	2006 Lighting				15	40	90.00%	535	212	0.029	0.035	3,180	0.433	0.522	90.00%	2,862	0.389	0.470
4	2006 Lighting				14	20	90.00%	249	132	0.018	0.022	1,848	0.251	0.304	90.00%	1,683	0.226	0.273
4	2006 Lighting				3	44	90.00%	120	296	0.040	0.049	888	0.121	0.146	90.00%	799	0.109	0.131
4	Total Lighting							7,668				8,880	1,208	1,459		7,992	1,087	1,313
5	2006 Lighting				7	578	90.00%	3,642	212	0.029	0.035	1,484	0.202	0.244	90.00%	1,336	0.182	0.219
5	2006 Lighting				16	289	90.00%	4,163	132	0.018	0.022	2,112	0.287	0.347	90.00%	1,901	0.259	0.312
5	2006 Lighting				15	40	90.00%	535	212	0.029	0.035	3,180	0.433	0.522	90.00%	2,862	0.389	0.470
5	2006 Lighting				9	20	90.00%	160	132	0.018	0.022	1,188	0.162	0.195	90.00%	1,069	0.145	0.176
5	2006 Lighting				6	44	90.00%	240	296	0.040	0.049	1,776	0.242	0.292	90.00%	1,598	0.217	0.263
5	Total Lighting							8,740				9,740	1,325	1,600		8,766	1,192	1,440
Total 2006 GS < 50 kW								139,237				208,008	28,303	34,169		187,182	25,467	30,749
								69,618						First Year	50.00%	93,591		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche															
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								Net							
2007 GS-<50 kW Projects															
52	2007 Lighting														
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Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche																
Response to Question 33(b)																
Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filled	Annual Energy Savings per Unit (kWh) Revised	Total Energy Savings per Annum (kWh) Filled	Annual Energy Savings per Unit (kWh) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
9	2007 Lighting Murb	8760	0.030	0.023	89	61	41	4,912	0.006	0.007	3,631	0.494	90.00%	3,268	0.445	0.537
9	2007 Lighting Murb	730	0.051	0.040	9	8	77	65	0.010	0.013	689	0.094	90.00%	620	0.084	0.102
9	2007 Lighting Murb	730	0.030	0.023	4	5	41	18	0.006	0.007	163	0.022	90.00%	147	0.020	0.024
9	2007 Lighting Murb	730	0.096	0.040	44	41	255	1,619	0.035	0.042	11,220	1,528	90.00%	10,098	1,373	1,659
9	2007 Lighting Murb	8760	0.082	0.040	1	368	194	331	0.026	0.032	194	0.028	90.00%	174	0.024	0.029
9	2007 Lighting Murb Apt	1095	0.060	0.013	219	51	99	10,144	0.013	0.016	21,615	2,940	90.00%	19,454	2,646	3,196
9	2007 Lighting Murb Apt	180	0.060	0.013	18	8	137	137	0.013	0.016	1,777	0.242	90.00%	1,599	0.217	0.263
9	2007 Lighting Murb Apt	180	0.075	0.020	3	10	27	27	0.016	0.019	347	0.047	90.00%	312	0.042	0.051
9	2007 Lighting Murb Apt	730	0.060	0.013	50	34	98	1,544	0.013	0.016	4,935	0.671	90.00%	4,442	0.604	0.730
9	2007 Lighting Murb Apt	1095	0.060	0.013	26	51	99	1,204	0.013	0.016	2,566	0.349	90.00%	2,310	0.314	0.379
9	2007 Lighting Murb Apt	1095	0.075	0.020	15	60	813	20,814	0.016	0.019	1,733	0.236	90.00%	1,559	0.212	0.256
9	Total Lighting							20,814			48,869	6,647	8,028	43,982	5,992	7,226
13	2007 Lighting	2320	0.060	0.013	257	109	188	25,221	0.026	0.031	48,316	6,572	90.00%	43,484	5,915	7,144
13	2007 Lighting	2320	0.100	0.023	10	179	308	1,608	0.042	0.051	3,080	0.419	90.00%	2,772	0.377	0.455
13	Total Lighting							26,829			51,396	6,991	8,444	46,256	6,292	7,599
14	2007 Lighting	2320	0.060	0.013	117	109	188	11,482	0.026	0.031	21,996	2,992	90.00%	19,796	2,693	3,252
14	2007 Lighting	2320	0.100	0.023	6	179	965	965	0.042	0.051	1,848	0.251	90.00%	1,663	0.226	0.273
14	Total Lighting							12,447			23,844	3,243	3,917	21,460	2,919	3,526
17	2007 Lighting	2320	0.100	0.026	16	172	296	2,472	0.040	0.049	4,736	0.644	90.00%	4,282	0.580	0.700
17	2007 Lighting	2320	0.060	0.013	124	109	188	12,169	0.026	0.031	23,312	3,171	90.00%	20,981	2,854	3,447
17	Total Lighting							14,641			28,048	3,815	4,608	25,243	3,433	4,147
18	2007 Programmable Thermostats				3	1,952	1,088	5,271	0.000	0.000	3,263	0.000	90.00%	2,937	0.000	0.000
18	Total Programmable Thermostat							5,271			3,263	0.000	0.000	2,937	0.000	0.000
Total 2007 Demand Reduction								274,329			415,665	56,401	67,598	374,099	50,761	60,928
								137,164				First Year	50.00%	187,049		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche														
Response to Question 33(d)														
Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh) Filled	Filled Free Riders	Total Energy Savings per Annum (kWh) Filled	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Energy Savings per Annum (kWh) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Total Energy Savings per Annum (kWh) Revised
74 2008 Lighting	1-100W Inc to 26 W CFL	4000	0.100	0.026	2	296	90%	533	0.040	0.049	592	0.081	0.097	533
74 2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	24	180	90%	3,888	0.024	0.030	4,320	0.588	0.710	3,888
74 Total Lighting								4,421			4,912	0.668	0.807	4,421
75 2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	10	180	90%	1,620	0.024	0.030	1,800	0.245	0.298	1,620
75 2008 Lighting	2-T12 34W (86W) to 2-T8 25W (49W)	4000	0.086	0.049	34	148	90%	4,529	0.020	0.024	5,032	0.884	0.827	4,529
75 Total Lighting								6,149			6,832	0.929	1,122	6,149
76 2008 Lighting	2-T12 34W (86W) to 2-T8 28W (55W)	4000	0.086	0.055	42	124	90%	4,687	0.020	0.024	5,168	0.839	1,013	4,687
76 2008 Lighting	1-60W Inc to 15 W CFL	4000	0.060	0.015	12	180	90%	1,944	0.027	0.033	2,403	0.327	0.395	1,944
76 Total Lighting								6,631			7,571	1,166	1,408	6,631
77 2008 Lighting	1-60W Inc to 15 W CFL	4,000	0.060	0.015	41	180	90%	6,642	0.019	0.023	7,512	0.790	0.955	6,642
77 Total Lighting								6,642			7,512	0.790	0.955	6,642
78 2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8,760	0.030	0.002	1	249	90%	224	0.020	0.024	249	0.020	0.024	224
78 2008 Lighting	2-T12 (40W)(86W) to 2-T8 (28W) (42W)	2,900	0.086	0.042	15	128	90%	1,753	0.024	0.029	2,070	0.363	0.439	1,753
78 2008 Lighting	4-T12 (40W)(172W) to 4-T8 (28W) (84W)	2,900	0.172	0.084	22	255	90%	5,053	0.048	0.058	5,734	0.952	1,271	5,053
78 Total Lighting								6,999			10,553	1,435	1,734	6,999
79 2008 Lighting	1X4- T12 (34W)(43W) to 1X4- T8(28W)(26W)	8760	0.043	0.026	8	149	90%	1,072	0.015	0.018	898	0.122	0.147	898
79 2008 Lighting	1X3- T12 (34W)(40W) to 1X3- T8(28W)(24W)	8760	0.040	0.024	2	140	90%	252	0.015	0.018	224	0.031	0.037	252
79 2008 Lighting	1X2- T12 (34W)(36W) to 1X2- T8(28W)(22W)	8760	0.036	0.022	5	123	90%	552	0.015	0.018	561	0.076	0.092	561
79 2008 Lighting	2X4- T12 (34W)(86W) to 2X4- T8(28W)(48W)	8760	0.086	0.048	9	333	90%	2,696	0.023	0.028	3,151	0.206	0.249	2,696
79 2008 Lighting	4X4- T12 (34W)(164W) to 4X4- T8(28W)(94W)	4000	0.164	0.094	13	280	90%	3,276	0.037	0.044	3,514	0.478	0.577	3,276
79 2008 Lighting	60 W Inc. to 13 W CFL	8760	0.060	0.013	12	412	90%	4,447	0.033	0.039	4,876	0.391	0.473	4,447
79 2008 Lighting	60 W Inc. to 23 W CFL	4000	0.060	0.013	60	188	90%	10,152	0.033	0.039	14,382	1,956	2,363	10,152
79 2008 Lighting	60 W Inc. to 13 W CFL	4000	0.060	0.023	4	148	90%	533	0.026	0.031	595	0.103	0.124	595
79 2008 Lighting	100 W Inc. to 16 W EL/ARB30 CFL	8760	0.100	0.016	6	736	90%	3,974	0.058	0.070	2,570	0.350	0.422	3,974
79 2008 Lighting	75 W Inc. to 16 W EL/ARB30 CFL	8760	0.075	0.016	6	517	90%	2,791	0.041	0.049	1,805	0.246	0.297	2,791
79 2008 Lighting -- Custom Photocell	100 W Inc. to 42 W CF40EL	4320	0.100	0.042	9	251	70%	1,579	0.002	0.024	2,255	0.014	0.217	1,579
79 2008 Lighting -- Custom Photocell	100 W Inc. to 70 W HPS (100W) -- Removal	4320	0.100	0.000	2	432	70%	605	0.003	0.042	864	0.005	0.083	605
79 Custom Project Reference Appendix 10-C Input Assumptions Page 3 of 25								31,928			32,220	3,977	5,081	31,928
79 Total Lighting								57			120	0.016	0.020	57
82 2008 Lighting	40 Watt Incandescent to 13 Watt CFL	2340	0.040	0.013	1	63	90%	154	0.016	0.020	146	0.199	0.241	154
82 2008 Lighting	60 Watt Incandescent to 13 Watt CFL	520	0.060	0.013	7	24	90%	30	0.028	0.034	1,464	0.241	0.298	1,464
82 2008 Lighting	60 Watt Incandescent to 13 Watt CFL	100	0.060	0.013	7	5	90%	30	0.028	0.034	1,464	0.199	0.241	1,464
82 2008 Lighting	T12-2x4 (34W)(86W) to T8-2x4 (32 W) (55W)	8760	0.086	0.055	2	272	90%	489	0.016	0.019	231	0.031	0.038	489
82 2008 Lighting	T12-2x4 (34W)(86W) to T8-2x4 (32 W) (55W)	2340	0.086	0.055	10	73	90%	653	0.016	0.019	1,157	0.157	0.190	653
82 2008 Lighting	Exit 30W Inc. To 2 Watt LED	8760	0.030	0.002	6	245	90%	1,325	0.020	0.024	864	0.122	0.147	1,325
82 Total Lighting								2,707			5,330	0.725	0.876	2,707
83 2008 Air Conditioning -- Custom	5 Ton SEER 13 Air Conditioner -- Summer	5-Ton			1	1,169	70%	818	0.000	0.000	0	0.000	0.000	0
83 2008 Air Conditioning -- Custom	5 Ton SEER 13 Air Conditioner -- Winter	5-Ton			1	479	70%	335			0	0.000	0.000	0
83 Custom Project Reference Appendix 10-C Input Assumptions Page 1 of 25								1,154			0	0.000	0.000	1,154
83 Total Air Conditioning											0	0.000	0.000	0

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								Net				Gross	Gross	Net	
84 2008 Lighting	T12-4x4 (164W) to T8-4x4 (32W) (112W)	2912	0.164	0.112	3	151	0.022	409	0.026	0.022	0.026	0.065	0.079	432	
84 2008 Lighting	T12-4x4 (164W) Removal	2912	0.164	0	2	478	0.081	860	0.098	0.081	0.098	0.162	0.196	1,073	
84 2008 Lighting	T12-2x4 (82W) to T8-4x4 (32W) (112W)	2912	0.082	0.112	3	-87	-0.015	-236	-0.018	-0.015	-0.018	-0.046	-0.055	-302	
84 2008 Lighting	T12-2x4 (82W) Removed	2912	0.082	0	2	239	0.044	430	0.053	0.044	0.053	0.068	0.106	583	
84 2008 Lighting	T12-4x4 (164W) to T8-2x4 (32W) (59W)	1040	0.164	0.059	3	109	0.031	295	0.037	0.051	0.062	0.153	0.185	1,015	
84 2008 Lighting	Additional to T8-2x4 (32W) (59W)	1040	0	0.059	1	-61	-0.030	-55	-0.036	-0.030	-0.036	-0.030	-0.036	-198	
84 2008 Lighting	Inc 100W to 24W CFL Entrance	3640	0.1	0.024	2	277	0.041	498	0.048	0.041	0.050	0.083	0.100	547	
84 2008 Lighting	Inc 75W Flood to 15W CFL Entrance	3640	0.075	0.015	3	218	0.033	590	0.039	0.033	0.039	0.098	0.118	648	
84 2008 Lighting	Inc 100W to 24W CFL Office	2912	0.1	0.024	2	221	0.041	398	0.041	0.041	0.050	0.083	0.100	547	
84 2008 Lighting	Inc 75W Flood to 15W CFL Office	2912	0.075	0.015	2	175	0.033	314	0.033	0.033	0.039	0.085	0.079	432	
84 2008 Lighting	Halogen 75W to 24W CFL Office	2912	0.075	0.015	5	149	0.028	668	0.034	0.028	0.034	1.020	0.139	918	
84 2008 Lighting	Inc 75W Flood to 15W CFL Chapel	2496	0.075	0.015	18	150	0.033	240	0.039	0.033	0.039	4.320	0.568	3,888	
84 2008 Lighting	Inc 200W to 24W CFL LOUNGE Floor Lamp	1248	0.2	0.024	4	220	0.096	791	0.116	0.096	0.116	2.816	0.383	2,534	
84 2008 Lighting	Inc 60W to 13W CFL Table (12)	1248	0.06	0.013	12	59	0.026	633	0.026	0.026	0.031	2.256	0.307	2,030	
84 2008 Lighting	Inc 75W Flood to 15W CFL Lounge	1248	0.075	0.015	4	75	0.033	270	0.033	0.033	0.039	0.960	0.131	864	
84 2008 Lighting	Halogen 75W to 24W CFL Show Room	520	0.075	0.024	6	27	0.028	143	0.034	0.028	0.034	1.224	0.166	1,102	
84 2008 Lighting	Inc 75W Flood to 15W CFL Show Room	520	0.075	0.015	17	31	0.033	477	0.039	0.033	0.039	4.080	0.555	3,672	
84 2008 Lighting	Inc 60W to 11W CFL Lounge	1248	0.06	0.011	5	61	0.027	275	0.032	0.027	0.032	0.980	0.161	882	
84 Total Lighting								9,186				22,964	3,123	20,668	
85 2008 Lighting	2x8- T12 (158W) to 2x8- T8(25W)(87W)	3000	0.158	0.087	122	213	0.053	387	0.064	0.053	0.064	47,232	6,424	42,509	
85 2008 Lighting	2x4 T12 (72W) to 2x4 T8(25W)(46W)	3000	0.072	0.046	35	78	0.023	2,457	0.028	0.023	0.028	5,919	0.805	5,327	
85 2008 Lighting	1x4- T12 (43W) Removed	3000	0.043	0	26	129	0.028	3,019	0.034	0.028	0.034	5,438	0.740	4,894	
85 2008 Lighting	1x4- T12 (43W) to 4x4- T8(25W)(87W)	3000	0.043	0.087	10	-132	-0.023	-1,188	-0.028	-0.023	-0.028	-1,691	-0.230	-1,522	
85 2008 Lighting	T12-1x4 (31W) to T8-1x4 (25W) (26W)	3000	0.043	0.026	4	51	0.015	184	0.018	0.015	0.018	445	0.073	401	
85 2008 Lighting	T12-4x8 (316W) to T8-2x8 Tandem (25W) (87W)	3000	0.316	0.087	8	687	0.157	4,948	0.189	0.157	0.189	9,220	1,254	8,298	
85 2008 Lighting	100 W inc. to 15/016EL/AR20 (14W) CFL	750	0.1	0.014	5	65	0.032	290	0.038	0.032	0.038	1,914	0.260	1,722	
85 2008 Lighting	150 W inc. to 15/016EL/AR20 (14W) CFL	750	0.15	0.014	3	102	0.082	275	0.099	0.082	0.099	1,816	0.247	1,634	
85 2008 Lighting	50 W inc.Flood to 15 EL/BR30 (15W) CFL	3500	0.05	0.015	15	123	0.021	1,654	0.026	0.021	0.026	3,318	0.384	2,103	
85 Total Lighting								35,024				72,628	9,879	65,366	
33 2008 Lighting	1-60W inc to 13 W CFL	2320	0.04	0.013	216	63	0.026	12,177	0.031	0.026	0.031	40,608	5,523	36,547	
33 Total Lighting								12,177				40,608	5,523	36,547	
36 2008 Lighting	2x4 - T12 (86) to 2x4 T8 (28W) (42W)	3500	0.086	0.042	393	154	0.018	54,470	0.022	0.018	0.022	51,876	7,056	46,688	
36 2008 Lighting	4x4 - T12 (172W) to 4x4 T8 (28W) (84W)	3500	0.172	0.084	95	308	0.041	26,334	0.050	0.041	0.050	28,880	3,928	25,992	
36 2008 Lighting	1 - T12 (45W) to 1 - T8 (22W)	3500	0.045	0.022	8	81	0.014	580	0.016	0.014	0.016	800	0.109	720	
36 2008 Lighting	4x4 - T8 (114W) to 4x4 T8 (28W) (84W)	3500	0.114	0.084	26	105	0.009	2,457	0.011	0.009	0.011	1,664	0.226	1,498	
36 2008 Lighting	1-75W PAR30 to CFL 23W	3500	0.075	0.023	3	182	0.028	491	0.034	0.028	0.034	824	0.085	582	
36 Total Lighting								84,332				83,944	11,404	75,460	
37 2008 Lighting	30W Incandescent Exit to 1.6 W LED Exit	8760	0.030	0.002	5	249	0.020	1,120	0.024	0.020	0.024	745	0.101	670	
37 2008 Lighting	2 - T12 (86W) to 2- T8 (28W) (42W)	3400	0.086	0.042	55	150	0.018	7,405	0.022	0.018	0.022	7,260	0.987	6,534	
37 2008 Lighting	4 - T12 (172W) to 4- T8 (28W) (84W)	3400	0.172	0.084	5	299	0.041	1,346	0.050	0.041	0.050	1,520	0.207	1,368	
37 2008 Lighting	50W Par 20 inc. to 9 W CFL Par 20	3400	0.050	0.009	50	139	0.009	6,273	0.027	0.027	0.027	8,200	1,115	7,380	
37 2008 Lighting	75 BR 30 inc. to 23 W CFL front entrance	3400	0.075	0.023	17	177	0.028	2,705	0.034	0.028	0.034	3,536	0.481	3,182	
37 2008 Lighting	100 W inc. to 23 W CFL outdoor pot	3400	0.100	0.023	13	262	0.042	3,063	0.051	0.042	0.051	4,004	0.545	3,604	
37 2008 Lighting	Hal 75W Par38 to CFL 23W	3400	0.075	0.023	7	177	0.028	1,114	0.034	0.028	0.034	1,456	0.198	1,310	
Total Lighting								23,026				26,721	3,634	24,049	
Total 2008 Demand Reduction								310,890				481,182	65,043	58,535	
								83.33%				First Year	83.33%		83.33%
								360,367							360,367

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Demand Reduction General Service < 50 kW for Third Tranche														
Response to Question 33(b)														
Initiative	Measure	Hours Use	Base kW	Efficiency kW	Units	Annual Energy Savings per Unit (kWh)	Filed Free Riders	Total Energy Savings per Annum (kWh)	Annual Energy Savings per Unit (Summer Peak kW) Revised	Annual Energy Savings per Unit (Winter Peak kW) Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) Revised
	Traffic Lights							Net			Gross	Gross		Net
100 2005 Traffic Lights	130W Inc. to 10.5 W LED 12" Lens	2920	0.1300	0.0105	14	349	90.00%	4,397	0.065	0.079	0.910	1,099	90.00%	6,023
100 2005 Traffic Lights	69 W to 7.5 W LED 8" Lens	2920	0.0690	0.0075	40	180	90.00%	6,465	0.040	0.048	1,593	1,924	90.00%	10,539
100 2005 Traffic Lights	100 W to 8 W LED Pedestrian 8" Lens	4380	0.1000	0.0080	16	403	90.00%	5,803	0.110	0.132	12,895	2,118	90.00%	11,605
100 Total Traffic Lights 2005							25.00%	16,664			31,296	5,142		28,167
								4,166				First Year	25.00%	7,042
100 Total Traffic Lights 2006								0			0	First Year	50.00%	0
100 2007 Traffic Lights	130W Inc. to RED 7.5 W LED 12" Lens	4000	0.1300	0.0075	135	490	90.00%	59,546	0.067	0.081	8,999	10,869	90.00%	59,546
100 2007 Traffic Lights	130W Inc. To AMBER 7.5 W LED 12" Lens	760	0.1300	0.0075	12	93	90.00%	1,046	0.013	0.015	1,163	0.158	90.00%	1,046
100 2007 Traffic Lights	130W Inc. To GREEN 7.5 W LED 12" Lens	4000	0.1300	0.0075	12	490	90.00%	5,507	0.067	0.081	6,119	0.832	90.00%	5,507
100 2007 Traffic Lights	69W Inc. To RED 5.5 W LED 8" Lens	4000	0.0690	0.0055	116	254	90.00%	26,585	0.035	0.042	29,538	4,018	90.00%	26,585
100 2007 Traffic Lights	69W Inc. To AMBER 5.5 W LED 8" Lens	760	0.0690	0.0055	226	48	90.00%	9,797	0.007	0.008	10,896	1,481	90.00%	9,797
100 2007 Traffic Lights	69W Inc. To GREEN 5.5 W LED 8" Lens	4000	0.0690	0.0055	226	254	90.00%	51,563	0.035	0.042	57,292	7,793	90.00%	51,563
100 2007 Traffic Lights	130W Inc. To Arrow 7.5 W LED 12" Lens	438	0.1300	0.0075	6	54	90.00%	302	0.007	0.009	335	0.046	90.00%	302
100 2007 Traffic Lights	130W Inc. To Pedestrian 8 W LED 12" Lens	8760	0.1000	0.0080	207	806	90.00%	150,019	0.110	0.132	166,698	27,384	90.00%	150,019
100 Total Traffic Lights 2007					940			304,365			338,183	55,559		304,365
							50.00%	152,182			First Year	50.00%	50.00%	152,182
100 2008 Traffic Lights	130W Inc. to RED 7.5 W LED 12" Lens	4000	0.1300	0.0075	17	490	90%	7,443	0.067	0.081	8,270	1,125	90.00%	7,443
100 2008 Traffic Lights	130W Inc. To AMBER 7.5 W LED 12" Lens	760	0.1300	0.0075	2	93	90%	1,311	0.013	0.015	1,45	0.020	90.00%	1,311
100 2008 Traffic Lights	130W Inc. To GREEN 7.5 W LED 12" Lens	4000	0.1300	0.0075	2	490	90%	688	0.067	0.081	765	0.104	90.00%	688
100 2008 Traffic Lights	69W Inc. To RED 5.5 W LED 8" Lens	4000	0.0690	0.0055	15	254	90%	3,323	0.035	0.042	3,692	0.502	90.00%	3,323
100 2008 Traffic Lights	69W Inc. To AMBER 5.5 W LED 8" Lens	760	0.0690	0.0055	28	48	90%	1,225	0.007	0.008	1,351	0.185	90.00%	1,225
100 2008 Traffic Lights	69W Inc. To GREEN 5.5 W LED 8" Lens	4000	0.0690	0.0055	28	254	90%	6,445	0.035	0.042	7,162	0.974	90.00%	6,445
100 2008 Traffic Lights	130W Inc. To Arrow 7.5 W LED 12" Lens	438	0.1300	0.0075	1	54	90%	38	0.007	0.009	42	0.006	90.00%	38
100 2008 Traffic Lights	130W Inc. To Pedestrian 8 W LED 12" Lens	8760	0.1000	0.0080	26	806	90%	18,752	0.110	0.132	20,836	3,423	90.00%	18,752
100 Total Traffic Lights 2008					118		83.33%	31,705			5,750	6,945	First Year	38,046
												First Year	50.00%	19,023

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential OPA Programs															
Response to Question 33(b)															
Initiative	Measure	Units	Annual Energy Savings per Unit (kWh) Filled	Filed Free Riders Filled	Total Energy Savings per Annum (kWh) Filled	Annual Energy Savings per Unit (kWh) OPA Measures	Annual Energy Savings per Unit (Summer Peak kW) OPA Measures	Annual Energy Savings per Unit (Winter Peak kW) OPA Measures	Total Energy Savings per Annum (kWh) OPA Revised	Total Summer Peak kW Savings per Annum OPA Revised	Total Winter Peak kW Savings per Annum OPA Revised	Revised Free Riders	Total Energy Savings per Annum (kWh) OPA Revised	Total Summer Peak kW Savings per Annum OPA Revised	Total Winter Peak kW Savings per Annum OPA Revised
2006															
2006 Every Kilowatt Counts (spring)	Energy Star® Compact Fluorescent Light Bulb	6,887	104	90.00%	647,105	43	0.001	0.012	296,142	6,887	82,844	70.00%	207,300	4,821	57,851
2006 Every Kilowatt Counts (spring)	Electric Timers	193	183	90.00%	31,799	219	0.007	0.062	42,283	1,352	11,971	70.00%	29,598	0,946	8,379
2006 Every Kilowatt Counts (spring)	Programmable Thermostats	84	216	90.00%	16,327	138	0.151	0.000	11,590	12,682	0,000	70.00%	8,113	8,877	0,000
2006 Every Kilowatt Counts (spring)	Energy Star® Ceiling Fans	64	141	90.00%	8,108	90	0.003	0.025	5,737	0.192	1,597	70.00%	4,016	0.134	1,118
2006 Cool Savings Rebate Program	Energy Star® Air Conditioner	74	351	90.00%	23,398	167	0.183	0.000	12,370	13,555	0,000	70.00%	8,659	9,488	0,000
2006 Cool Savings Rebate Program	Programmable Thermostats	56	159	90.00%	8,075	138	0.151	0.000	7,787	8,521	0,000	70.00%	5,451	5,964	0,000
2006 Cool Savings Rebate Program	Air Conditioner Tune-Up	67	369	90.00%	22,134	254	0.278	0.000	16,929	18,529	0,000	70.00%	11,850	12,970	0,000
2006 Secondary Fridge Retirement Pilot	Refrigerator Retirement	26	1,200	90.00%	27,890	940	0.096	0.117	24,282	2,479	3,021	70.00%	16,997	1,735	2,115
2006 Secondary Fridge Retirement Pilot	Freezer Retirement	1	900	90.00%	905	755	0.086	0.088	843	0.096	0,098	70.00%	590	0,067	0,069
2006 Every Kilowatt Counts (fall)	Energy Star® Compact Fluorescent Light Bulb	10,211	104	90.00%	959,466	43	0.001	0.012	439,092	10,211	122,537	70.00%	307,364	7,148	85,776
2006 Every Kilowatt Counts (fall)	Seasonal Light Emitting Diode Light String	2,458	31	90.00%	68,022	14	0.000	0.006	33,673	0,000	14,747	70.00%	23,571	0,000	10,323
2006 Every Kilowatt Counts (fall)	Programmable Thermostats	162	522	90.00%	76,132	138	0.151	0.000	22,359	24,465	0,000	70.00%	15,651	17,126	0,000
2006 Every Kilowatt Counts (fall)	Dimmers	128	139	90.00%	16,027	24	0.007	0.007	3,036	0,897	0,897	70.00%	2,125	0,628	0,628
2006 Every Kilowatt Counts (fall)	Indoor Motion Sensors	46	209	90.00%	8,647	64	0.002	0.018	2,942	0,092	0,827	70.00%	2,060	0,064	0,579
2006 Every Kilowatt Counts (fall)	Programmable Baseboard Thermostats	10	1,466	90.00%	12,735	75	0.000	0.022	725	0,000	0,212	70.00%	507	0,000	0,149
Total 2006				50.00%	1,926,771				919,791	99,96	238.55	50.00%	643,854	69.97	166.99
					963,385				First Year				321,927		

Input to OPA Table 3 and OPA Table 4 Question 33(d) -- OPA Assumptions and Measures Calculations for Residential OPA Programs														
Response to Question 33(b)														
Initiative	Measure	Units	Annual Energy Savings per Unit Filled	Total Energy Savings per Annum Filled (kWh)	Annual Energy Savings per Unit (kWh) OPA Measures	Annual Energy Savings per Unit (Summer Peak kW) OPA Measures	Annual Energy Savings per Unit (Winter Peak kW) OPA Measures	Total Energy Savings per Annum Revised Gross	Total Summer Peak kW Savings per Annum Revised Gross	Total Winter Peak kW Savings per Annum Revised Gross	Revised Free Riders	Total Energy Savings per Annum Revised	Total Summer Peak kW Savings per Annum Revised	Total Winter Peak kW Savings per Annum Revised
2007				Net										
2007	Great Refrigerator Roundup	327	745	95,427	940	0.096	0.117	307,478	31,392	38,259	70%	215,235	21,974	26,781
2007	Great Refrigerator Roundup	61	515	14,362	755	0.086	0.088	46,073	5,246	5,368	70%	32,251	3,672	3,758
2007	Great Refrigerator Roundup	5	490	736	940	0.096	0.117	4,702	0.480	0.585	70%	3,291	0.336	0.410
2007	Great Refrigerator Roundup	2	339	304	755	0.086	0.088	1,511	0.172	0.176	70%	1,057	0.120	0.123
2007	Great Refrigerator Roundup	1	240	104	96	0.098	0.000	96	0.098	0.000	70%	67	0.069	0.000
2007	Great Refrigerator Roundup	172	152	14,978	167	0.183	0.000	28,733	31,486	0.000	70%	20,113	22,040	0.000
2007	Great Refrigerator Roundup	244	55	3,655	138	0.151	0.000	33,627	36,795	0.000	70%	23,539	25,757	0.000
2007	Great Refrigerator Roundup	270	832	132,548	807	0.440	0.126	217,576	118,629	33,971	70%	152,303	83,040	23,780
2007	Great Refrigerator Roundup	145	235	5,382	254	0.278	0.000	36,945	40,436	0.000	70%	25,861	28,305	0.000
2007	Great Refrigerator Roundup	12,322	43	413,273	43	0.001	0.012	529,838	12,322	147,862	70%	370,886	8,625	103,503
2007	Great Refrigerator Roundup	2,006	62	97,161	53	0.002	0.015	105,509	4,012	30,088	70%	73,856	2,808	21,062
2007	Great Refrigerator Roundup	2,593	43	84,736	43	0.001	0.012	111,495	2,593	31,115	70%	78,047	1,815	21,780
2007	Great Refrigerator Roundup	99	90	4,909	90	0.003	0.025	8,925	0.298	2,485	70%	6,248	0.209	1,739
2007	Great Refrigerator Roundup	400	38	8,304	38	0.021	0.006	15,098	8,410	2,403	70%	10,569	5,887	1,682
2007	Great Refrigerator Roundup	1,582	33	6,745	5	0.000	0.000	7,593	0.000	0.000	70%	5,315	0.000	0.000
2007	Great Refrigerator Roundup	158	160	13,909	160	0.000	0.000	25,288	0.000	0.000	70%	17,702	0.000	0.000
2007	Great Refrigerator Roundup	101	24	1,311	24	0.007	0.007	2,383	0.704	0.704	70%	1,668	0.493	0.493
2007	Great Refrigerator Roundup	48	123	3,235	123	0.004	0.035	5,882	0.191	1,675	70%	4,117	0.134	1,173
2007	Great Refrigerator Roundup	3,264	14	21,914	14	0.000	0.006	44,723	0.000	19,587	70%	31,306	0.000	13,711
2007	Great Refrigerator Roundup	94	37	2,687	37	0.001	0.010	3,489	0.094	0.938	70%	2,443	0.066	0.657
2007	Great Refrigerator Roundup	97	75	3,991	75	0.000	0.022	7,257	0.000	2,126	70%	5,080	0.000	1,488
2007	Great Refrigerator Roundup	44	72	2,441	72	0.006	0.009	3,170	0.263	0.394	70%	2,219	0.184	0.276
2007	Great Refrigerator Roundup	507	72	20,128	72	0.001	0.013	36,596	0.507	6,589	70%	25,617	0.355	4,613
2007	Great Refrigerator Roundup	8	287	2,266	159	0.018	0.031	1,272	0.144	0.248	100%	1,272	0.144	0.248
2007	Great Refrigerator Roundup	35	69	2,415	69	0.007	0.009	2,408	0.245	0.315	100%	2,408	0.245	0.315
2007	Great Refrigerator Roundup	10	749	7,490	749	0.090	0.000	7,490	0.900	0.000	100%	7,490	0.900	0.000
2007	Great Refrigerator Roundup	2	292	584	292	0.000	0.000	584	0.000	0.000	100%	584	0.000	0.000
2007	Great Refrigerator Roundup	10	100%	61,711	0	0.000	0.000	0	0.000	0.000	100%	0	0.000	0.000
2007	Great Refrigerator Roundup			1,018,333				1,595,743	295.42	324.89	50.00%	1,120,547	207.18	227.59
Total 2007				513,318						First Year		560,273		

APPENDIX "G" – Question 33, part d)

OPA Table 4 -- Response to Question 33 (d)												
FOREGONE REVENUE BY PROGRAM AND CLASS (With Free Riders)												
Rate Class, Program and Measure	OPA Input Assumptions and Measures										"As Filed"	Difference
	2005	2006		2007		2008		2009		OPA	OEB	
	First Year kWh Saved	Carried Forward Total kWh Saved For 2005	First Year kWh Saved Plus Carried Forward kWh For 2005	Carried Forward Total kWh Saved For 2005 and 2006	First Year kWh Saved Plus Carried Forward kWh For 05 and 06	Carried Forward Total kWh Saved For 2005, 2006 and 2007	First Year kWh Saved Plus Carried Forward kWh For 05, 06 and 07	Carried Forward Total kWh Saved For 2005, 2006, 2007 and 2008	First Year kWh Saved Plus Carried Forward kWh For 05, 06, 07 and 08	LRAM Lost Revenue for 2005 to 2009 Period \$	LRAM Lost Revenue for 2005 to 2009 Period \$	OPA LESS "As Filed" LRAM Lost Revenue for 2005 to 2009 Period \$
Rates Effective	1-Mar-05		1-May-06		1-May-07		1-May-08		1-May-09			
Residential												
Rates (\$ per kWh)	\$0.01150		\$0.01120		\$0.01130		\$0.01120		\$0.01120			
Water Heater Tune-up												
Tank Wrap	12,504	50,018	68,357	86,697	100,805	114,912	114,912	114,912	114,912	4,630	4,630	0
Faucet Aerator	1,134	4,534	5,980	7,425	7,831	8,237	8,237	8,237	8,237	354	541	-187
Showerhead	6,249	24,995	35,107	45,220	52,661	60,102	60,102	60,102	60,102	2,410	6,201	-3,791
Pipe Wrap	1,667	6,669	11,525	16,382	18,229	20,075	20,075	20,075	20,075	805	1,610	-805
CFL25	5,312	21,246	32,160	43,073	47,079	51,084	51,084	51,084	51,084	2,101	6,747	-4,646
Weatherstripping	14,419	57,676	57,676	57,676	57,676	57,676	57,676	57,676	57,676	2,761	2,761	0
Outlet Insulation					179	358	358	358	358	10	10	0
Total Water Heater Tune-up	41,284	165,138	210,805	256,473	284,459	312,445	312,445	312,445	312,445	13,071	22,500	-9,429
Fridge Buy-back	69,606	278,423	326,660	374,898	395,631	416,365	416,365	416,365	416,365	18,290	23,341	-5,051
EnerGuide for Houses												
Caulking Products	81	326	326	326	326	326	326	326	326	16	16	0
Weatherstripping	122	489	489	489	489	489	489	489	489	23	23	0
Attic Insulation (R-11 to R-38)	885	3,542	3,542	3,542	3,542	3,542	3,542	3,542	3,542	170	182	-12
Fuel Substitution	11,568	46,273	46,273	46,273	46,273	46,273	46,273	46,273	46,273	2,215	2,848	-633
Basement Insulation	122	489	489	489	489	489	489	489	489	23	23	0
B-audits			11,090	22,180	22,180	22,180	22,180	22,180	22,180	873	873	0
Furnace Fans			5,265	10,530	10,530	10,530	10,530	10,530	10,530	414	414	0
Total EnerGuide for Houses	12,779	51,118	67,473	83,827	83,827	83,827	83,827	83,827	83,827	3,734	4,380	-645
Information Based												
Inc. 60W to 15W CFL Project Porchlight			0	0	58,050	116,100	664,348	774,000	774,000	16,786	40,754	-23,968
Inc. 60W to 15W CFL Promotions			8,708	17,415	52,245	87,075	115,197	120,821	120,821	3,334	8,095	-4,761
Inc (125W) to LED (3.5W) (New)			0	0	19,882	39,764	39,764	39,764	39,764	1,116	1,536	-420
Total Information Based			8,708	17,415	130,177	242,939	819,309	934,586	934,586	21,236	50,385	-29,149
Demand Reduction					162,857	325,714	606,161	662,250	662,250	16,061	10,660	5,401
Third Tranche Total (kWh)	123,670	494,679	613,646	732,613	1,056,952	1,381,291	2,238,107	2,409,473	2,409,473	72,392	111,266	-38,874
3rd Tranche Lost Revenue (\$)	1,422		6,934		11,908		25,141		26,986	72,392		
OPA Residential (2006 & 2007)			321,927	643,854	1,204,127	1,764,400	1,764,400	1,764,400	1,764,400	56,786	104,446	-47,661
OPA Lost Revenue (\$)	0		3,638		13,566		19,820		19,761	56,786		
Total Residential	123,670	494,679	935,572	1,376,466	2,261,079	3,145,691	4,002,507	4,173,873	4,173,873	129,178	215,713	-86,535
Class Lost Revenue (\$)	1,422		10,572		25,475		44,961		46,747	129,178	215,713	-86,535
General Service < 50 kW (GS<50kW)												
Rates (\$ per kWh)	\$0.0142		\$0.01390		\$0.01400		\$0.01390		\$0.01390			
Demand Reduction			93,591	187,182	374,232	561,281	921,648	993,721	993,721	33,191	25,863	7,328
LED Traffic Lights	7,042	28,167	28,167	28,167	180,349	332,531	351,554	370,577	370,577	13,063	12,557	506
GS < 50 kW Total (kWh)	7,042	28,167	121,758	215,349	554,581	893,812	1,273,202	1,364,298	1,364,298	46,254	38,420	7,834
Class Lost Revenue (\$)	100		1,705		7,746		17,740		18,964	46,254	38,420	7,834
Total Residential and GS<50kW Lost Revenue \$	1,522		12,277		33,220		62,701		65,711	175,432	254,133	-78,701