Cooperative Hydro Embrun Inc.
821 Notre-dame Street
Embrun, ON
K0A 1W1

December 14, 2011

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

Re: Response to Interrogatories EB-2011-0164

Dear Ms. Walli:

Please find attached Cooperative Hydro Embrun Inc.'s response to interrogatories.

This document is being filed pursuant to the Board's e-Filing Services.

Yours Truly,

Benoit Lamarche
General Manager

Exhibit 4

Tab 1 of 2

Response to Interrogatories

Response to Board Staff Interrogatories

Cooperative Hydro Embrun Inc.
2012 Electricity Distribution Rates
EB-2011-0164
Board Staff Interrogatories

1. Board Approved Disposition - 2010

Ref: Rate Generator Model

A portion of Sheet "9. 2012 Cont. Sched. Def_Var" from the Rate Generator Model is reproduced below.

		2011			Projected Interest on Dec-31-10 Balances			2.1.7 RRR
Account Descriptions	Account Number	Interest Disposition during 2011 - instructed by Board	Closing Principal Balances as of Dec 31-10 Adjusted for Dispositions during 2011	Closing Interest Balances as of Dec 31-10 Adjusted during 2011 Dispositions	Projected Interest from Jan 1, 2011 to December 31, 2011 on Dec 31 -10 balance adjusted for disposition	Projected Interest from January 1, 2012 to April 30, 2012 on Dec 31 -10 balance adjusted for disposition during 2011	Total Claim	As of Dec 31-10 [4]
Group 1 Accounts								
LV Variance Account	1550		$ 3,893	$ 576	$ 23	$ 8	$ 4,500	$ 4,469
RSVA - Wholesale Market Service Charge	1580		-$ 67,321	-$ 353	-$ 1,210	-$ 403	-$ 69,287	-$ 67,674
RSVA - Retail Transmission Network Charge	1584		-$ 89	-$ 299	-$ 6	-$ 2	-$ 396	-$ 388
RSVA - Retail Transmission Connection Charge	1586		-$ 24,256	-$ 586	-$ 411	-$ 137	-$ 25,390	-$ 24,842
RSVA - Power (excluding Global Adjustment)	1588		$ 35,087	$ 1,047	-$ 144	-$ 48	$ 35,942	$ 36,134
RSVA - Power - Sub-Account - Global Adjustment	1588		$ 26,850	$ 264	$ 428	$ 142	$ 27,684	$ 27,114
Recovery of Regulatory Asset Balances	1590		$ -	$ -			$ -	
Disposition and Recovery of Regulatory Balances (2008)[7]	1595		$ 4,564	$ 9,943	$ 36	$ 12	$ 14,555	$ 14,507
Disposition and Recovery of Regulatory Balances (2009)[7]	1595		$ -	$ -			$ -	
Group 1 Sub-Total (including Account 1588 - Global Adjustment)		$ -	-$ 21,272	$ 10,592	-$ 1,284	-$ 428	-$ 12,392	-$ 10,680

a) Board Staff notes that the amounts provided in the "2.1.7 RRR" column for the Group 1 accounts do not match the corresponding amounts provided by Embrun Hydro in the RRR filing.

Please provide an explanation for the apparent discrepancy. If this is an error, please submit correct amounts and Board Staff will make appropriate corrections in the model.

CHEI Response

In the Ontario Energy Board Accounting Procedures Handbook Frequently Asked Questions of October 2009, answer to question 13 stated that:

'The APH in Article 490 states that the method (billed or accrual) chosen by the distributor shall be consistently applied on an ongoing basis to all RSVAS. Consequently, all quarterly (2.1.1) and annual reporting are required to be reported under the same method.'

In the Rate Generator Model submitted, all variance accounts have been reported under the cash basis for all the years presented, which is consistent with the December 31, 2010 2.1.1 RRR filing submitted on February 28, 2011. 2.1.7 RRR filing was done using the accrual basis, which corresponds to the annual audited financial statements.

On November 11, 2011 Board advised CHEI that it did not intend to hear the application for disposition of Account 1562 as part of CHEI's 2012 IRM application but will consider it in on a stand-alone basis in a separate application. The Board expects CHEI to address the disposition of account 1562 in a stand-alone application to be filed no later than April 1, 2012. CHEI respectfully request that the Board allow CHEI to defer disposition of its Group 1 Deferral and Variance Accounts to that proceeding. CHEI make this request in the desire to avoid compounding rate riders.

CHEI requests Board staff to make the appropriate adjustments in the model.

2. Unmetered Scattered Load and Street

Ref: Rate Generator Model

A portion of Sheet "4. Current MFC" from the Rate Generator Model is reproduced below.

Unmetered Scattered Load		
Service Charge	$	39.47
Rate Rider for Recovery of Late Payment Penalty Litigation Costs	$	0.09
Street Lighting		
Service Charge	$	1.58
Rate Rider for Recovery of Late Payment Penalty Litigation Costs	$	0.01

A portion of Sheet "13. Proposed MFC" from the Rate Generator Model is reproduced below.

Unmetered Scattered Load		
Service Charge	$	39.47
Street Lighting		
Service Charge	$	1.58

a) Please confirm if the Service Charge for the Unmetered Scattered Load and Street Lighting rate classes is respectively "per customer" and "per connection". After confirmation, Board Staff will make the correction.

CHEI Response

CHEI confirms that Unmetered Scattered Load rate classes is respectively "per customer".

CHEI confirms that Street Lighting rate classes is respectively "per connection".

CHEI respectfully requests Board staff to make the correction in the model.

3. Specific Service Charges – Account History

Ref: Rate Generator Model
Ref. Tariff of Rates and Charges – Effective May 1, 2011

a) Board Staff notes that the Specific Service Charge for "Account history" ($15) is captured in Embrun Hydro's Tariff of Rates and Charges – Effective May 1, 2011. Board Staff further notes that this charge is missing from Sheet "19. Other Charges" of the Rate Generator Model.

   If this is an error, Board Staff will make the correction.

CHEI Response

CHEI confirms this is an error. CHEI respectfully requests Board staff to make the correction in the model.

4. Service Charge and Volumetric Rates – Tax Savings Work Form

Ref: Shared Tax Savings Model

A portion of Sheet "3. Re-Based Bill Det & Rates" from the Shared Tax Savings Model is reproduced below.

Rate Class	Fixed Metric	Vol Metric	Re-based Billed Customers or Connections A	Re-based Billed kWh B	Re-based Billed kW C	Rate ReBal Base Service Charge D	Rate ReBal Base Distribution Volumetric Rate kWh E	Rate ReBal Base Distributio Volumetric Rate kW F
Residential	Customer	kWh	1,834	19,657,452		12.88	0.0120	
General Service Less Than 50 kW	Customer	kWh	162	4,976,291		20.02	0.0166	
General Service 50 to 4,999 kW	Customer	kW	12	4,387,835	12,779	241.54		4.475
Unmetered Scattered Load	Connection	kWh	20	95,536		52.55	0.0137	
Street Lighting	Connection	kW	407	388,274	1,066	1.86		7.552

a) Board Staff notes that the Service Charge and Volumetric Rates for kWh and kW on this work form do not match the most current approved tariff, i.e. Embrun Hydro's Tariff of Rates and Charges – Effective May 1, 2011.

   Please provide an explanation for the apparent discrepancy. If this is an error, Board Staff will make appropriate corrections in the model.

CHEI Response

CHEI confirms this as an error. However CHEI would also note that the resulting shared tax savings is not material and therefore does not have any impact on the current application.

CHEI will submit a corrected model for record purposes.

5. Account 1521 – Special Purpose Charge ("SPC")

Ref: Manager's Summary, Table 6, Page 20 and Table 7, Page 21.

a) Please confirm Hydro Embrun's SPC assessment amount and provide a copy of the original SPC invoice.

CHEI Response

Please see Appendix 1.

b) Please provide the recovery period for the SPC.

CHEI Response

CHEI recovery period for the SPC was June 2010 to May 31, 2011.

c) Please complete the following table related to the SPC.

CHEI Response

SPC Assessment (Principal balance)	Amount recovered from customers in 2010	Carrying Charges for 2010	December 31, 2010 Year End Principal Balance	December 31, 2010 Year End Carrying Charges Balance	Amount recovered from customers in 2011	Carrying Charges for 2011	Forecasted December 31, 2011 Year End Principal Balance	Forecasted December 31, 2011 Year End Carrying Charges Balance	Forecasted Carrying Charges for 2012 (Jan.1 to Apr.30)	Total for Disposition (Principal & Interest)
$11,171	$5,570	$35	$5,601	$35	$5,335	$22	$266	$57	$2	$325

6. LRAM Claims

Ref: 2006-2012 LRAM Report, Sept. 26, 2011

Elenchus notes that the sum of all LRAM calculations $23,748.80 and that this amount is based on lost revenues from programs implemented from 2006-2010 with savings persisting to April 30, 2012.

a) Please confirm that Cooperative Hydro Embrun has not collected any LRAM amounts it has requested in this application in past LRAM applications.

CHEI Response

CHEI confirms that it has not claimed LRAM amounts in previous applications.

b) Please confirm that Cooperative Hydro Embrun used final 2010 program evaluation results from the OPA to calculate its LRAM amount?

CHEI Response

CHEI received the final 2010 evaluation results on November 15, 2011. The final report effectively changes the amount requested. This is detailed in c) below.

c) If Cooperative Hydro Embrun did not use final 2010 program evaluation results from the OPA, please explain why and update the LRAM amount accordingly.

CHEI Response

CHEI received the final 2010 evaluation results from the OPA on November 15, 2011.

The following summarizes the updated results.

Customer Class	Savings	LRAM
Residential	2.0 GWh	$21,993.66
General Service Less Than 50 kW	0.1 GWH	$595.28
General Service 50 to 4,999 kW	0.3 MW	$893.14
Total To April 2012		**$23,482.09**

Therefore CHEI includes in this response an updated LRAM claim in the amount of $23,482.09 for the years from January 1, 2006 through April 30, 2012. An amended third party review by the consulting firm Elenchus is enclosed herein, which supports this claim. Please see Appendix 2.

The following table calculates the updated proposed rate riders to be collected over a one year period ending April 30, 2013:

Customer Class	2010 RRR	Units	LRAM	Proposed Rate Rider
Residential	19,868,483	kWh	$21,993.66	$0.0011
General Service Less Than 50 kW	4,729,493	kWh	$595.28	$0.0001
General Service 50 to 4,999 kW	11,793	kW	$893.14	$0.0757
Total To April 2012			**$23,482.09**	

CHEI respectfully requests Board staff to make the appropriate changes in the model.

d) Please discuss why Cooperative Hydro Embrun feels it is appropriate to collect LRAM for 2006-2010 programs from January 1, 2011until April 30, 2012 when the 2011 program year is not yet complete, 2012 has not yet begun and both are using estimated lost revenue amounts based on the OPA Measures and Assumptions list available at the time of filing this application.

CHEI Response

It is appropriate to collect LRAM for savings that persist from programs and projects completed prior to 2011/2012. Those savings are predictable and not dependent on any activity or lack of activity undertaken by CHEI or any other party. Savings that result from activity initiated and carried out in 2011 and 2012 will be the subject of future LRAM claims once those savings have been evaluated and established (by the OPA in most cases). The savings claims are not based on the OPA Measures and Assumptions lists and therefore subject to revision. They are based on OPA reports to CHEI that tabulate the actual evaluated savings (EM&V process has been

completed) and in some cases are pro-rated by the OPA if locally-specific information is not available or impracticable to get.

e) If the OPA subsequently updates its Measures and Assumptions list following the 2011 program year (i.e. sometime in 2012 and before Cooperative Hydro Embrun files its next rate application), will Cooperative Hydro Embrun file an updated LRAM application seeking to recover or refund any variance between the requested LRAM amounts from January 1, 2011 – April 30, 2012 to the actual verified amounts from January 1, 2011 – April 30, 2012 calculated using the updated OPA Measures and Assumptions list? Please discuss the rationale for your response.

CHEI Response

Subsequent to the OPA performing full EM&V on its programs (starting in 2007 and going forward the same applies to any approved LDC programs), LRAM savings claims are not based on the OPA Measures and Assumptions lists and are therefore not subject to revision. For 2006 to 2010, the savings are based exclusively on OPA reports to each LDC, CHEI in this case, that tabulate the evaluated savings (i.e., the EM&V process has been completed). In some cases, the savings are pro-rated by the OPA if LDC-specific information is not available or impracticable to get (e.g., for some mass market consumer programs where individual savings cannot be tracked and traced to specific residential addresses). The OPA EM&V process already factors in any necessary changes to the Measures and Assumptions lists values before producing its final results. Typically, if the OPA updates Measures and Assumptions list values, it is to align them with recent EM&V actual results since evaluation results are the primary source that drives the values on the lists in the first place. The Measures and Assumptions lists values are ex ante while the EM&V evaluation results are ex post. By definition, ex ante values cannot predict net-to-gross factors or attribution and would therefore be inappropriate for LRAM calculation purposes since it too is an ex post process.

Response to VECC Interrogatories

ONTARIO ENERGY BOARD

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

AND IN THE MATTER OF an Application by
Cooperative Hydro Embrun Inc. for an order or orders
approving or fixing just and reasonable
distribution rates to be effective May 1, 2012.

Information Requests of the Vulnerable Energy Consumers Coalition (VECC)

Lost Revenue Adjustment Mechanism (LRAM)

VECC Question # 1

Reference: Exhibit 1, Tab 2, Schedule 6, Attachment 1, Elenchus Report, Page 1

Preamble: Cooperative Hydro Embrun Inc. (Embrun) seeks an LRAM claim of $23,748.80 for energy savings from 2006 to 2010 OPA CDM activities, for the years January 1, 2006 through April 30, 2012.

a) Please confirm that the LRAM amounts Embrun is seeking to recover in this application are new amounts not included in past LRAM claims.

CHEI Response:

As confirmed on Exhibit 1 Tab 1 Schedule 2 page 1, line 21of the LRAM report, there has been no previous LRAM application by CHEI.

b) Please explain why there is no claim for activity related to 2005 to 2009 Third Tranche programs.

CHEI Response:

CHEI chose to reserve its LRAM claim to savings that were the least contestable and easiest to calculate.

c) Please discuss how any CDM savings have been accounted for in Embrun's approved load forecast.

CHEI Response:

There were no direct CDM savings from OPA programs included in CHEI's load forecast.

d) Does the LRAM claim include carrying charges? If not, please explain.

CHEI Response:

CHEI has chosen not to include carrying charges as they are not material.

e) Please provide the rationale for requesting lost revenues for 2011 and January 1, 2012 to April 30, 2012.

CHEI Response:

CHEI is requesting recovery of lost revenues estimated to April 30, 2012 for programs "delivered" (OPA terminology) in 2009 and 2010; i.e. programs started in either of these years but which may continue to have energy-saving benefits for a number of years.

CHEI is not requesting recovery of lost revenue associated with unverified programs started in 2011, or unverified programs started between January 1 and April 30, 2012. The requested lost revenues in 2011 and the first four months of 2012 are associated with verified savings arising from programs that were started in 2009 and 2010.

A distinction must be made between lost revenue in 2011 due to programs started in 2011, and lost revenue in 2011 due to programs started in earlier years. An implemented program will lead to energy savings, and thus lost revenues, that will persist over the lifetime of the program's measures. For example, if a 2009 program consists of a measure with a lifetime of two years, the program will lead to lost revenues each year until the end of 2011. This would be unrelated to lost revenue due to a program started in 2011.

The use of a program's verified results extending over multiple years is standard for the calculation of an LRAM claim. This approach is consistent with numerous Board-approved LRAM claims, including Burlington Hydro's LRAM claims (Decision on EB-

2010-0067 dated March 17, 2011; Decision on EB-2009-0259 dated March 1, 2010), as well as decisions on other LRAM claims (Decision on Middlesex Power Distribution's LRAM claim EB-2010-0098 dated March 17, 2011; Decision on Norfolk Power Distribution's LRAM claim EB-2011-0046 dated May 6, 2011; Decision on Hydro One Brampton's LRAM claim EB-2010-0132 dated April 4, 2011).

f) Please provide the calculation of the LRAM Rate Riders for each applicable rate class to the end of 2010.

CHEI Response:

Customer Class	2010 RRR	Units	LRAM	Proposed Rate Rider
Residential	19,868,483	kWh	$17,023.11	$0.0009
General Service Less Than 50 kW	4,729,493	kWh	$496.94	$0.0001
General Service 50 to 4,999 kW	11,793	kW	$881.34	$0.0747
Total to Dec 2010			**$18,401.39**	

VECC Question # 2

Reference: Elenchus Report, Table One, OPA Results Net kWh

a) Please provide the following details by year for the OPA Every Kilowatt Counts and Every Kilowatt Counts Power Savings Event that adds to the data shown in Table One: # units, unit and total kWh savings, lifetime, and free ridership rate. Reconcile to the lost revenues shown in Table Five.

CHEI Response:

For the purposes of the two Every Kilowatt Counts programs, which were both 100% residential, Table Five simply displays a sub-set of the same information contained in Table Two.

g) List and confirm OPA's input assumptions for Every Kilowatt Counts (EKC) 2006 to 2010 including the measure life, unit kWh savings and free ridership rate for Compact Fluorescent Lights (CFLs) and Seasonal Light Emitting Diodes (LED). Confirm some of these assumptions were changed in 2007 and again in 2009 and compare the values.

CHEI Response:

OPA evaluation (EM&V) results over time and across dozens of measures can produce different measure life, unit kWh savings and free ridership rates, as needed and appropriate. Those are factored in to the energy and capacity savings calculations produced by the OPA. Since the OPA is the sole authoritative source of information regarding the results of its programs, CHEI relies on the veracity of OPA data for its LRAM claim.

h) Demonstrate that savings for EKC 2006 Mass Market measures 13-15 W Energy Star CFLs & Seasonal LEDs have been removed from the LRAM claim beginning in 2010.

CHEI Response:

It is apparent that the energy savings from the EKC 2006 Mass Market program drop-off precipitously after 2009. The 4-year effective useful life of some of the dominant measures in that initiative is undoubtedly the mathematical explanation for that drop-off. Since an authoritative evaluation (EM&V) was not conducted on the 2006 EKC Mass

Market program, and therefore not published by the OPA on its Website, all parties are reliant on the OPA's calculations as provided to LDC's. Any further elucidation of the specifics would require the involvement of the OPA.

i) Adjust the LRAM claim as necessary to reflect the measure lives and unit savings for any/all measures that have expired starting in 2010.

CHEI Response:

These adjustments are already taken into account in the claim.

b) VECC notes that the totals on Table One – OPA Results Net kWh are the same as Table Two – OPA Results Net kWh Adjusted to April 30, 2012. Please explain.

CHEI Response:

This was a design error in the report, which has been corrected in the updated attachment.

Exhibit 4

Tab 2 of 2

Appendices

Appendix 1 of 2

Appendix 1 - Original SPC invoice

Revised Invoice

Ministry of Energy and Infrastructure
Conservation and Renewable Energy Program Costs

To: Cooperative Hydro Embrun Inc.
821 Notre-dame Street, Suite 200
Embrun, ON K0A 1W1
Attn: Benoit Lamarche, Manager

568100

Customer No./No du client **472573**
Customer Site No./ N° d'emplacement du client 1060820
Invoice Date/Date de la facture **April 16, 2010**
Invoice No./ N° de la facture 50015
Due Date/ Date d'échéance **July 30, 2010**
Payment Amount/ Montant remis **CAD $ 11,171**

Item Description:

Assessment for Ministry of Energy and Infrastructure Conservation and Renewable Energy Program Costs.
Quote-part pour les coûts des programme de conservation et d'énergie renouvelable du ministère de l'Énergie et de l'Infrastructure.

Questions related to the remittance should be directed to the Non-Tax Revenue Management Branch Contact Centre at 1-877-535-0554 or Fax (416) 326-5177. Les questions concernant la remise doivent être posées à l'InfoCentre de la Direction de la gestion des revenus non fiscaux au 1 877 535-0554 ou par télécopieur au 416 326-5177.

This assessment was calculated by the Ontario Energy Board, 2300 Yonge St. 27th Floor, P.O. Box 2319, Toronto, ON M4P 1E4.Questions related to the invoice should be directed to the Market Operations Hotline 416-440 -7604. La présente quote-part a été fixée par la Commission de l'énergie de l'Ontario, 2300, rue Yonge, 27e étage, case postale 2319, Toronto (Ontario) M4P 1E4. Les questions relatives à la facture doivent être posées au service de téléassistance du service Activités du marché : 416 440-7604.

Payments are to be made to the Minister of Finance not the Ontario Energy Board.
Les paiements doivent être faits au ministre des Finances et non à la Commission de l'énergie de l'Ontario.

18.

Appendix 2 of 2

Appendix 2 - Amended Third Party Review LRAM Report

Suite 600, 34 King Street East
Toronto, Ontario M5C 2X8
Fax: (416) 348-9930
web: elenchus.ca & cerise.info

Martin Benum
Tel: (416) 640-0929
mbenum@elenchus.ca

elenchus

December 9, 2011

Benoit Lamarche
General Manager
Cooperative Hydro Embrun Inc.
821 Notre-dame Street
Embrun, ON
K0A 1W1

Re: Updated 2006 to 2012 LRAM Report

Dear Benoit:

Elenchus is pleased to attach the updated 2006 to 2012 LRAM Report For Cooperative Hydro Embrun Inc. for inclusion in your 2012 IRM3 Rate Application.

Elenchus concludes that Cooperative Hydro Embrun Inc.'s electricity rates should be adjusted to reflect an LRAM claim of $23,482.09. This update replaces our original proposed claim of $23,748.80

Thank you for allowing Elenchus to be of service. Please contact me should you have any questions about this report.

Yours Truly,

Martin Benum
Senior Consultant

Updated 2006 to 2012 LRAM REPORT

Prepared on: December 9, 2011

Prepared for:

Cooperative Hydro Embrun Inc.
821 Notre-dame Street
Embrun, ON
K0A 1W1

This document was prepared for Cooperative Hydro Embrun Inc.

by Elenchus Research Associates Inc.

For additional information regarding this document please contact:

Elenchus Research Associates Inc.

34 King Street East, Suite 600

Toronto, Ontario

M5C 2X8

Tel: 416 532-4333

December 9, 2011

Exhibit 1

LRAM REPORT

Exhibit 1

Tab 1 of 3

Report

Report Contents

Executive Review

The Ontario Energy Board (OEB) Guidelines for Electricity Distributor Conservation and Demand Management (EB-2008-0037) permit Cooperative Hydro Embrun Inc. to make application for recovery of lost revenue that results from the successful operation of CDM initiatives within its boundaries. A third-party review of that recovery claim is required and is the subject of this report.

Elenchus Research Associates Inc. (Elenchus) acted as the third party reviewer. Personnel details can be found in Tab 3 Schedule 1.

The third party review included Cooperative Hydro Embrun Inc.'s CDM activities from 2006 through 2010, consisting of programs initiated by the Ontario Power Authority (OPA) only. There is no claim for activity related to 2005 to 2009 Third Tranche of Market Adjustment Revenue Requirement (MARR) funding or post-Third Tranche funding.

The LRAM claim, correspondingly, includes energy and demand savings that result from those 2006 – 2010 programs, some of which continue through to the end of the filing period, which is April 30, 2012.

There has been no previous LRAM application by Cooperative Hydro Embrun Inc.

Total net energy savings for which LRAM is being claimed amount to over 2.2GWh in the residential rate class and 0.1 GWh in the GS < 50 kW rate class. Summer peak demand savings in the GS 50 to 4,999 kW rate class totaled approximately 0.3 MW.

Elenchus concludes that Cooperative Hydro Embrun Inc.'s electricity rates should be adjusted to reflect an LRAM claim of $23,482.09

Introduction

The Lost Revenue Adjustment Mechanism (LRAM) is designed to ensure that Local Distribution Companies (LDC) "remain whole" despite the lower consumption levels that are, by design, the result of successful conservation and demand management initiatives. There should not be a disincentive for LDC's to encourage energy efficiency and energy conservation efforts. Therefore, an LDC is compensated for these lost revenues.

This claim for lost revenue (LRAM) respects the process outlined in the March 28, 2008 OEB Guidelines for Electricity Distributor Conservation and Demand Management EB-2008-0037) ("CDM Guidelines") for rate-based applications to recover revenues lost to customer energy conservation.

The LRAM calculation is based on the sum of the electricity savings over the period of the claim, which are then valued at the appropriate distribution rate depending on the timing (year) of the savings and to which rate class they belonged.

The savings themselves are the product of an energy program evaluation process, often referred to as Evaluation, Measurement and Verification (EM&V). Fortunately, in the case of this claim, all savings estimates are for OPA programs and are provided by the OPA.

These savings estimates include persistence—the installation of energy conservation measures whose savings that last past the initial year that they are installed. A four-year program that installed 10 widgets per year with a savings of 1,000 kWh each would result in the following savings profile if the widgets lasted 4 or more years (which is common):

Example Savings Profile Showing Effect of Persistence

Year	In-Year Savings (kWh)	Cumulative Savings (kWh)
1	10,000	10,000
2	20,000	30,000
3	30,000	60,000
4	40,000	100,000

The OPA designed and delivered some initial programs in 2006 and 2007, but then set-out to build a portfolio of programs to address a broad cross-section of customer types that

would run from 2008 to 2010. This latter time frame corresponds to an Ontario goal of shaving 1,350 MW from the electricity system in the province. Savings from these programs typically follow a pattern similar to the one illustrated in the table above. Energy program evaluations determine the energy and demand savings estimates to a reasonable degree of accuracy and also determine the persistence including patterns, or effective useful life (EUL) of new measures being installed and the remaining useful life (RUL) of measures being replaced. It is assumed that the tables provided to each LDC, Cooperative Hydro Embrun Inc., by the OPA contain accurate interpretations and transcriptions of the results from those evaluations (available on the OPA Website).

There are "gross" savings and "net" savings for energy efficiency programs. OPA documentation details the differences between these two, and both are provided to LDC's by the OPA, but for the purposes of this LRAM claim only "net" savings are utilized. Net savings are determined to be those savings that would not have occurred unless the energy efficiency program was running. They are not natural conservation or savings that someone could claim would have occurred anyway. They do not include savings from "free riders."

Some energy efficiency programs are operated at a province-wide scale. These include some behavioural-based programs and some residential/consumer-orientated initiatives like discount coupons. In certain of these cases, savings are apportioned to LDC's by the OPA rather than an attempt made to track individual transactions (which is sometimes impossible).

The savings claimed by Cooperative Hydro Embrun Inc. are therefore the net energy and demand savings that can be attributed to the programs and initiatives that operated in Cooperative Hydro Embrun Inc. territory during the 2006-2010 period and as apportioned to Cooperative Hydro Embrun Inc. by the OPA according to its established formulae.

Assumptions

This report for Cooperative Hydro Embrun Inc. was created with the following assumptions that are often peculiar to the 2006-2010 period:

- "Consumer" kWh classified as the Residential rate class
- "Business" and/or "Industrial" kWh classified as General Service <50 kW because larger industrial projects were not yet part of the program mix by the end of 2010
- "Consumer" kW savings were omitted because they are immaterial
- Designated "business and industrial" kW classified as General Service>50 kW because it consists primarily of Demand Response initiatives utilized by large industrial participants

LRAM Recommendations

During the period of the LRAM claim, total net energy savings for which LRAM is being claimed amount to over 2.0 GWh in the residential rate class and 0.1 GWh in the GS < 50 kW rate class. Summer peak demand savings in the GS 50 to 4,999 kW rate class totaled approximately 0.3 MW.

Elenchus has concluded that Cooperative Hydro Embrun Inc. can justifiably claim $23,482.09 in LRAM, allocated by rate class as shown in the table below.

Customer Class	Savings	LRAM
Residential	2.0 GWh	$21,993.66
General Service Less Than 50 kW	0.1 GWH	$595.28
General Service 50 to 4,999 kW	0.3 MW	$893.14
Total To April 2012		**$23,482.09**

Works Sited and Referenced

1. OPA Final 2010 CDM Summary Results November 15, 2011
    - 2010 Final CDM Results Summary_Cooperative Hydro Embrun Inc..xlsx
2. OEB Conservation and Demand Management Code for Electricity Distributors Issued: September 16, 2010

Exhibit 1

Tab 2 of 3

Tables

Input Tables OPA Results

1. Table One OPA Results Net kWh
2. Table Two OPA Results Net kWh Adjusted to April 30, 2012
3. Table Three OPA Results Net kW
4. Table Four OPA Results Net kW Adjusted to April 30, 2012

Table One - OPA Results Net kW

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012		Total
1	Secondary Refrigerator Retirement Pilot	Consumer	2006	Final	2,748	2,748	2,748	2,748	2,748	2,748	-		16,488
2	Cool & Hot Savings Rebate	Consumer	2006	Final	6,784	6,784	6,784	6,784	6,784	6,784	6,784		47,485
3	Every Kilowatt Counts	Consumer	2006	Final	176,017	176,017	176,017	176,017	22,694	22,694	22,694		772,151
6	Great Refrigerator Roundup	Consumer	2007	Final	-	3,740	3,740	3,740	3,740	3,740	3,740		22,443
7	Cool & Hot Savings Rebate	Consumer	2007	Final	-	10,296	10,296	10,296	10,296	10,296	9,807		61,285
8	Every Kilowatt Counts	Consumer	2007	Final	-	61,716	60,961	60,961	60,961	60,961	58,879		364,440
10	Summer Savings	Consumer	2007	Final	-	65,035	10,962	4,149	4,149	4,149	4,149		92,594
13	Social Housing Pilot	Consumer Low-Income	2007	Final	-	5,609	5,609	5,609	5,609	5,609	5,609		33,655
20	Great Refrigerator Roundup	Consumer	2008	Final	-	-	14,232	14,232	14,232	14,232	14,196		71,124
21	Cool Savings Rebate	Consumer	2008	Final	-	-	11,306	11,306	11,306	11,306	11,306		56,529
22	Every Kilowatt Counts Power Savings Event	Consumer	2008	Final	-	-	57,391	57,141	57,141	57,141	48,500		277,314
27	High Performance New Construction	Business	2008	Final	-	-	34	34	34	34	34		168
35	Great Refrigerator Roundup	Consumer	2009	Final	-	-	-	12,552	12,552	12,552	12,451		50,107
36	Cool Savings Rebate	Consumer	2009	Final	-	-	-	14,531	14,531	14,531	14,479		58,072
37	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	-	-	-	25,267	24,219	24,219	24,217		97,922
41	High Performance New Construction	Business	2009	Final	-	-	-	1,049	1,049	1,049	1,049		4,195
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	913	-	-	-		913
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	8,688	-	-	-		8,688
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	166	-	-	-		166
53	Great Refrigerator Roundup	Consumer	2010	Final	-	-	-	-	19,088	19,088	19,088		57,264
54	Cool Savings Rebate	Consumer	2010	Final	-	-	-	-	1,303	1,303	1,303		3,909
55	Every Kilowatt Counts Power Savings Event	Consumer	2010	Final	-	-	-	-	9,334	8,204	7,943		25,481
56	peaksaver®	Consumer, Business	2010	Final	-	-	-	-	136	136	136		407
59	High Performance New Construction	Business	2010	Final	-	-	-	-	3,361	3,361	3,361		10,083
61	Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2010	Final	-	-	-	-	19,912	19,912	19,912		59,735
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	15,883	-	-		15,883
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	563	-	-		563
					185,549	331,945	360,079	416,182	321,624	304,048	289,637		2,209,063

Table Two - OPA Results Net kWh Adjusted to April 30, 20

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
1	Secondary Refrigerator Retirement Pilot	Consumer	2006	Final	2,748	2,748	2,748	2,748	2,748	2,748	-	16,488
2	Cool & Hot Savings Rebate	Consumer	2006	Final	6,784	6,784	6,784	6,784	6,784	6,784	2,261	42,962
3	Every Kilowatt Counts	Consumer	2006	Final	176,017	176,017	176,017	176,017	22,694	22,694	7,565	757,021
6	Great Refrigerator Roundup	Consumer	2007	Final	-	3,740	3,740	3,740	3,740	3,740	1,247	19,949
7	Cool & Hot Savings Rebate	Consumer	2007	Final	-	10,296	10,296	10,296	10,296	10,296	3,269	54,747
8	Every Kilowatt Counts	Consumer	2007	Final	-	61,716	60,961	60,961	60,961	60,961	19,626	325,187
10	Summer Savings	Consumer	2007	Final	-	65,035	10,962	4,149	4,149	4,149	1,383	89,828
13	Social Housing Pilot	Consumer Low-Income	2007	Final	-	5,609	5,609	5,609	5,609	5,609	1,870	29,916
20	Great Refrigerator Roundup	Consumer	2008	Final	-	-	14,232	14,232	14,232	14,232	4,732	61,659
21	Cool Savings Rebate	Consumer	2008	Final	-	-	11,306	11,306	11,306	11,306	3,769	48,992
22	Every Kilowatt Counts Power Savings Event	Consumer	2008	Final	-	-	57,391	57,141	57,141	57,141	16,167	244,981
27	High Performance New Construction	Business	2008	Final	-	-	34	34	34	34	11	145
35	Great Refrigerator Roundup	Consumer	2009	Final	-	-	-	12,552	12,552	12,552	4,150	41,807
36	Cool Savings Rebate	Consumer	2009	Final	-	-	-	14,531	14,531	14,531	4,826	48,419
37	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	-	-	-	25,267	24,219	24,219	8,072	81,777
41	High Performance New Construction	Business	2009	Final	-	-	-	1,049	1,049	1,049	350	3,496
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	913	-	-	-	913
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	8,688	-	-	-	8,688
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	166	-	-	-	166
53	Great Refrigerator Roundup	Consumer	2010	Final	-	-	-	-	19,088	19,088	6,363	44,539
54	Cool Savings Rebate	Consumer	2010	Final	-	-	-	-	1,303	1,303	434	3,041
55	Every Kilowatt Counts Power Savings Event	Consumer	2010	Final	-	-	-	-	9,334	8,204	2,648	20,185
56	peaksaver®	Consumer, Business	2010	Final	-	-	-	-	136	136	45	316
59	High Performance New Construction	Business	2010	Final	-	-	-	-	3,361	3,361	1,120	7,842
61	Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2010	Final	-	-	-	-	19,912	19,912	6,637	46,461
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	15,883	-	-	15,883
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	563	-	-	563
					185,549	331,945	360,079	416,182	321,624	304,048	96,546	2,015,972

Table Three - OPA Results Net

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
1	Secondary Refrigera	Consumer	2006	Final	1	1	1	1	1	1	-	4
2	Cool & Hot Savings F	Consumer	2006	Final	6	6	6	6	6	6	6	44
3	Every Kilowatt Coun	Consumer	2006	Final	2	2	2	2	2	2	2	15
4	Demand Response 1	Business, Industrial	2006	Final	33	-	-	-	-	-	-	33
5	Loblaw & York Regic	Business, Industrial	2006	Final	2	-	-	-	-	-	-	2
6	Great Refrigerator R	Consumer	2007	Final	-	0	0	0	0	0	0	2
7	Cool & Hot Savings F	Consumer	2007	Final	-	7	7	7	7	7	6	41
8	Every Kilowatt Coun	Consumer	2007	Final	-	2	2	2	2	2	2	13
10	Summer Savings	Consumer	2007	Final	-	36	11	5	5	5	5	68
13	Social Housing Pilot	Consumer Low-Inco	2007	Final	-	1	1	1	1	1	1	4
17	Demand Response 1	Business, Industrial	2007	Final	-	36	-	-	-	-	-	36
18	Loblaw & York Regic	Business, Industrial	2007	Final	-	3	-	-	-	-	-	3
20	Great Refrigerator R	Consumer	2008	Final	-	-	2	2	2	2	1	8
21	Cool Savings Rebate	Consumer	2008	Final	-	-	7	7	7	7	7	36
22	Every Kilowatt Coun	Consumer	2008	Final	-	-	3	3	3	3	3	15
27	High Performance N	Business	2008	Final	-	-	0	0	0	0	0	0
29	Demand Response 1	Business, Industrial	2008	Final	-	-	51	-	-	-	-	51
30	Demand Response 3	Business, Industrial	2008	Final	-	-	10	-	-	-	-	10
31	Loblaw & York Regic	Business, Industrial	2008	Final	-	-	3	-	-	-	-	3
35	Great Refrigerator R	Consumer	2009	Final	-	-	-	2	2	2	2	7
36	Cool Savings Rebate	Consumer	2009	Final	-	-	-	10	10	10	10	38
37	Every Kilowatt Coun	Consumer	2009	Final	-	-	-	3	3	3	3	10
41	High Performance N	Business	2009	Final	-	-	-	0	0	0	0	2
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	21	-	-	-	21
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	14	-	-	-	14
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	20	-	-	-	20
47	Loblaw & York Regic	Business, Industrial	2009	Final	-	-	-	3	-	-	-	3
53	Great Refrigerator R	Consumer	2010	Final	-	-	-	-	3	3	3	8
54	Cool Savings Rebate	Consumer	2010	Final	-	-	-	-	1	1	1	3
55	Every Kilowatt Coun	Consumer	2010	Final	-	-	-	-	1	1	1	2
56	peaksaver®	Consumer, Business	2010	Final	-	-	-	-	24	24	24	73
59	High Performance N	Business	2010	Final	-	-	-	-	1	1	1	4
61	Multi-Family Energy	Consumer, Consum	2010	Final	-	-	-	-	2	2	2	5
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	14	-	-	14
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	29	-	-	29
64	Loblaw & York Regic	Business, Industrial	2010	Final	-	-	-	-	3	-	-	3
					43	94	107	109	128	82	81	644

Table Four - OPA Results Net kW Adjusted to April 30, 20

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
1	Secondary Refrigera	Consumer	2006	Final	1	1	1	1	1	1	-	4
2	Cool & Hot Savings F	Consumer	2006	Final	6	6	6	6	6	6	2	40
3	Every Kilowatt Coun	Consumer	2006	Final	2	2	2	2	2	2	1	13
4	Demand Response 1	Business, Industrial	2006	Final	33	-	-	-	-	-	-	33
5	Loblaw & York Regic	Business, Industrial	2006	Final	2	-	-	-	-	-	-	2
6	Great Refrigerator R	Consumer	2007	Final	-	0	0	0	0	0	0	2
7	Cool & Hot Savings F	Consumer	2007	Final	-	7	7	7	7	7	2	36
8	Every Kilowatt Coun	Consumer	2007	Final	-	2	2	2	2	2	1	12
10	Summer Savings	Consumer	2007	Final	-	36	11	5	5	5	2	65
13	Social Housing Pilot	Consumer Low-Inco	2007	Final	-	1	1	1	1	1	0	4
17	Demand Response 1	Business, Industrial	2007	Final	-	36	-	-	-	-	-	36
18	Loblaw & York Regic	Business, Industrial	2007	Final	-	3	-	-	-	-	-	3
20	Great Refrigerator R	Consumer	2008	Final	-	-	2	2	2	2	0	7
21	Cool Savings Rebate	Consumer	2008	Final	-	-	7	7	7	7	2	31
22	Every Kilowatt Coun	Consumer	2008	Final	-	-	3	3	3	3	1	13
27	High Performance N	Business	2008	Final	-	-	0	0	0	0	0	0
29	Demand Response 1	Business, Industrial	2008	Final	-	-	51	-	-	-	-	51
30	Demand Response 3	Business, Industrial	2008	Final	-	-	10	-	-	-	-	10
31	Loblaw & York Regic	Business, Industrial	2008	Final	-	-	3	-	-	-	-	3
35	Great Refrigerator R	Consumer	2009	Final	-	-	-	2	2	2	1	6
36	Cool Savings Rebate	Consumer	2009	Final	-	-	-	10	10	10	3	32
37	Every Kilowatt Coun	Consumer	2009	Final	-	-	-	3	3	3	1	8
41	High Performance N	Business	2009	Final	-	-	-	0	0	0	0	2
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	21	-	-	-	21
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	14	-	-	-	14
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	20	-	-	-	20
47	Loblaw & York Regic	Business, Industrial	2009	Final	-	-	-	3	-	-	-	3
53	Great Refrigerator R	Consumer	2010	Final	-	-	-	-	3	3	1	6
54	Cool Savings Rebate	Consumer	2010	Final	-	-	-	-	1	1	0	2
55	Every Kilowatt Coun	Consumer	2010	Final	-	-	-	-	1	1	0	2
56	peaksaver®	Consumer, Business	2010	Final	-	-	-	-	24	24	8	57
59	High Performance N	Business	2010	Final	-	-	-	-	1	1	0	3
61	Multi-Family Energy	Consumer, Consum	2010	Final	-	-	-	-	2	2	1	4
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	14	-	-	14
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	29	-	-	29
64	Loblaw & York Regic	Business, Industrial	2010	Final	-	-	-	-	3	-	-	3
					43	94	107	109	128	82	27	591

Output Tables LRAM Calculations

1. Table Five Residential LRAM Calculation
2. Table Six GS Less Than 50 kW LRAM Calculation
3. Table Seven GS 50 to 4,999 kW LRAM Calculation

Table Five - Residential LRAM Calculati

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
1	Secondary Refrigerator Retirement Pilot	Consumer	2006	Final	2,748	2,748	2,748	2,748	2,748	2,748	-	16,488
2	Cool & Hot Savings Rebate	Consumer	2006	Final	6,784	6,784	6,784	6,784	6,784	6,784	2,261	42,962
3	Every Kilowatt Counts	Consumer	2006	Final	176,017	176,017	176,017	176,017	22,694	22,694	7,565	757,021
6	Great Refrigerator Roundup	Consumer	2007	Final	-	3,740	3,740	3,740	3,740	3,740	1,247	19,949
7	Cool & Hot Savings Rebate	Consumer	2007	Final	-	10,296	10,296	10,296	10,296	10,296	3,269	54,747
8	Every Kilowatt Counts	Consumer	2007	Final	-	61,716	60,961	60,961	60,961	60,961	19,626	325,187
10	Summer Savings	Consumer	2007	Final	-	65,035	10,962	4,149	4,149	4,149	1,383	89,828
13	Social Housing Pilot	Consumer Low-Income	2007	Final	-	5,609	5,609	5,609	5,609	5,609	1,870	29,916
20	Great Refrigerator Roundup	Consumer	2008	Final	-	-	14,232	14,232	14,232	14,232	4,732	61,659
21	Cool Savings Rebate	Consumer	2008	Final	-	-	11,306	11,306	11,306	11,306	3,769	48,992
22	Every Kilowatt Counts Power Savings Event	Consumer	2008	Final	-	-	57,391	57,141	57,141	57,141	16,167	244,981
35	Great Refrigerator Roundup	Consumer	2009	Final	-	-	-	12,552	12,552	12,552	4,150	41,807
36	Cool Savings Rebate	Consumer	2009	Final	-	-	-	14,531	14,531	14,531	4,826	48,419
37	Every Kilowatt Counts Power Savings Event	Consumer	2009	Final	-	-	-	25,267	24,219	24,219	8,072	81,777
53	Great Refrigerator Roundup	Consumer	2010	Final	-	-	-	-	19,088	19,088	6,363	44,539
54	Cool Savings Rebate	Consumer	2010	Final	-	-	-	-	1,303	1,303	434	3,041
55	Every Kilowatt Counts Power Savings Event	Consumer	2010	Final	-	-	-	-	9,334	8,204	2,648	20,185
61	Multi-Family Energy Efficiency Rebates	Consumer, Consumer Low-Income	2010	Final	-	-	-	-	19,912	19,912	6,637	46,461
					185,549	331,945	360,045	405,333	300,599	299,469	95,019	1,977,960
	Residential Distribution Volumetric Rate	$/kWh			0.0102	0.0103	0.0103	0.0104	0.0126	0.0126	0.0126	
	LRAM				$ 1,892.60	$ 3,419.03	$ 3,708.47	$ 4,215.47	$ 3,787.55	$ 3,773.31	$ 1,197.25	$ 21,993.66

Table Six - GS Less Than 50 kW LRAM Calculati

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
27	High Performance New Construction	Business	2008	Final	-	-	34	34	34	34	11	145
41	High Performance New Construction	Business	2009	Final	-	-	-	1,049	1,049	1,049	350	3,496
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	913	-	-	-	913
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	8,688	-	-	-	8,688
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	166	-	-	-	166
59	High Performance New Construction	Business	2010	Final	-	-	-	-	3,361	3,361	1,120	7,842
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	15,883	-	-	15,883
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	563	-	-	563
					-	-	34	10,849	20,889	4,443	1,481	37,696
	GSLT50 Distribution Volumetric Rate	$/kWh			0.0136	0.0137	0.0137	0.0138	0.0166	0.0166	0.0166	
	LRAM				$ -	$ -	$ 0.46	$ 149.71	$ 346.77	$ 73.76	$ 24.59	$ 595.28

Table Seven - GS 50 to 4,999 kW LRAM Calculati

#	Initiative Name	Program Name	Program Year	Results Status	2006	2007	2008	2009	2010	2011	2012	Total
4	Demand Response 1	Business, Industrial	2006	Final	33	-	-	-	-	-	-	33
5	Loblaw & York Region Demand Response	Business, Industrial	2006	Final	2	-	-	-	-	-	-	2
17	Demand Response 1	Business, Industrial	2007	Final	-	36	-	-	-	-	-	36
18	Loblaw & York Region Demand Response	Business, Industrial	2007	Final	-	3	-	-	-	-	-	3
27	High Performance New Construction	Business	2008	Final	-	-	0	0	0	0	0	0
29	Demand Response 1	Business, Industrial	2008	Final	-	-	51	-	-	-	-	51
30	Demand Response 3	Business, Industrial	2008	Final	-	-	10	-	-	-	-	10
31	Loblaw & York Region Demand Response	Business, Industrial	2008	Final	-	-	3	-	-	-	-	3
41	High Performance New Construction	Business	2009	Final	-	-	-	0	0	0	0	2
44	Demand Response 1	Business, Industrial	2009	Final	-	-	-	21	-	-	-	21
45	Demand Response 2	Business, Industrial	2009	Final	-	-	-	14	-	-	-	14
46	Demand Response 3	Business, Industrial	2009	Final	-	-	-	20	-	-	-	20
47	Loblaw & York Region Demand Response	Business, Industrial	2009	Final	-	-	-	3	-	-	-	3
59	High Performance New Construction	Business	2010	Final	-	-	-	-	1	1	0	3
62	Demand Response 2	Business, Industrial	2010	Final	-	-	-	-	14	-	-	14
63	Demand Response 3	Business, Industrial	2010	Final	-	-	-	-	29	-	-	29
64	Loblaw & York Region Demand Response	Business, Industrial	2010	Final	-	-	-	-	3	-	-	3
					34	39	65	59	48	2	1	247
	GSGT50 Distribution Volumetric Rate	$/kWh			3.3585	3.3887	3.3921	3.419	4.4752	4.4833	4.4833	
	LRAM				$ 115.84	$ 131.16	$ 219.48	$ 201.68	$ 213.19	$ 8.85	$ 2.95	$ 893.14

Exhibit 1

Tab 3 of 3

Elenchus Personnel

Elenchus Regulatory Solutions Consultants

John Todd, President (Lead Consultant)

John Todd is President of Elenchus Research Associates Inc. He has specialized in the theory and practice of regulation and de-regulation for over 25 years and has actively participated in regulatory hearings and reform initiatives in several sectors of the Canadian economy, including natural gas, electricity and telecommunications.

John has served as an expert advisor or witness in 200 proceedings before the energy Boards in Ontario, Manitoba, British Columbia, Quebec, and Newfoundland and other tribunals including the Canadian Radio-television and Telecommunications Commission (CRTC) and the Ontario Securities Commission. His clients have included regulated utilities, regulatory agencies, generators and producers, and a variety of customer groups.

Martin Benum, Senior Consultant (Rate Applications)

Martin has over twenty years progressive experience in the Ontario electrical industry with regulatory, LDC and Retail electricity exposure. Prior to joining Elenchus, he was an advisor in electricity rate applications with the Ontario Energy Board. He has a strong working knowledge and application experience with OEB handbook rules, regulations, and guidelines.

Marc Collins – Director, Elenchus Energy Conservation

Energy Program Evaluation and Conservation and Demand-Side Management (CDM) professional with a very diverse career history. Founding Director of the Evaluation, Measurement and Verification (EM&V) department at the Ontario Power Authority in 2007. Marc led that function for the OPA from inception to maturity, leaving sophisticated evaluation protocols (new for 2011-14), world-class measures and assumptions lists and a portfolio of high-quality evaluations to show for the effort.

Specialties:

Energy program evaluation (EM&V)

- Planning and management

- Protocols and standards
- Impact evaluation
- Process evaluation
- Market effects evaluation
- Cost effectiveness testing

Demand-side management programs

Demand response programs

Use of advanced IT for energy-related applications

Regulatory aspects of EM&V and DSM tracking and reporting for utilities and central agencies

Potential studies