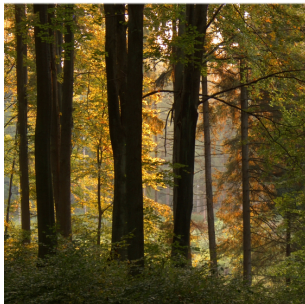


## PDI 2012-2014 LRAMVA





Peterborough Distribution Inc. lost  
revenue related to Conservation and  
Demand Management

*For 2012-2014 based on 2011-2014 results*



This document was prepared for Peterborough Distribution Inc. by IndEco Strategic Consulting Inc.

For additional information about this document, please contact:

IndEco Strategic Consulting Inc.  
77 Mowat Avenue, Suite 412  
Toronto, ON, Canada  
M6K 3E3

Tel: 416 532-4333  
E-mail: [info@indecocom](mailto:info@indecocom)

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## Introduction

The Lost Revenue Adjustment Mechanism (LRAM) was developed to remove a disincentive electricity local distribution companies (LDCs) may have to promote conservation and demand management (CDM). CDM programs are designed to provide energy savings and peak demand reductions for the customers of LDCs, which directly impacts the LDC's revenue. The LRAM allows LDCs to be compensated for any lost revenue that may have resulted from CDM programs the LDC offered its customers.

For the 2011-2014 CDM period, the Ontario Energy Board (OEB) has authorized LDCs to establish an LRAM variance account (LRAMVA) to capture the impact of CDM programs on the revenue of LDCs. The variance in the LRAMVA is between the lost revenue due to independently verified load impacts of CDM and the lost revenue from any CDM impacts an LDC included in the LDC's load forecast.<sup>1</sup>

Peterborough Distribution Inc. contracted with the Ontario Power Authority (OPA, which has now been merged into the Independent Electricity System Operator) to offer a suite of CDM programs to customers in a variety of rate classes for the 2011-2014 period. The CDM Guidelines (Appendix A) show that LDCs are entitled to claim lost revenues from 2014 programs and persisting losses from 2011–2013 programs in 2014 as part of their 2016 IRM applications.

Peterborough Distribution Inc. submitted a successful claim for lost revenues from 2011 CDM programs in 2011 in its 2013 Cost of Service (COS) application. Peterborough Distribution Inc. has not submitted a claim for other lost revenues. This report determines the variance account balance for the following revenue losses:

- Lost revenues in 2012 related to programs offered in 2011,
- Lost revenues in 2012 related to programs offered in 2012,
- Lost revenues in 2013 related to programs offered in 2011,
- Lost revenues in 2013 related to programs offered in 2012,
- Lost revenues in 2013 related to programs offered in 2013,
- Lost revenues in 2014 related to programs offered in 2011,
- Lost revenues in 2014 related to programs offered in 2012,
- Lost revenues in 2014 related to programs offered in 2013, and
- Lost revenues in 2014 related to programs offered in 2014.

The carrying charges on the above lost revenues through April 2016 are also reported.

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<sup>1</sup> *Guidelines for Electricity Distributor Conservation and Demand Management*. Ontario Energy Board. April 26, 2012 (EB-2012-0003).

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## Methodology

In principle, the determination of lost revenues is a simple calculation:

$$LR = (\text{CDM results} - \text{CDM results in the load forecast}) * \text{rate}$$

In practice, it is somewhat more complicated than that because of the limitations of the information available to calculate CDM results, the different time periods of results data and the rate year, and the need to determine carrying charges on the lost revenues.

### *CDM results*

From 2011 through 2014, Peterborough Distribution Inc. offered provincial programs in partnership with the Independent Electricity System Operator (IESO). Peterborough Distribution Inc. did not offer custom programs beyond the IESO programs.

### *IESO evaluation results*

The IESO performs evaluations of all of its programs, which examine gross energy savings from the programs, and the net-to-gross ratio (NTGR), and then from those calculates net energy savings by initiative within program group (residential, business, industrial and low-income). Peak load reductions are also calculated, and reported in the same way.

Provincial results are allocated to individual LDCs based on each LDC's individual performance where possible, or through an allocation process.

The IESO reports energy savings and peak demand reductions, by initiative in the current year, adjustments to the previous year, based on updated validation, and contribution to total savings or reductions to the end of the 2011 to 2014 period. The savings and demand reductions for a particular year for a number of programs persist in the following years up to and including 2014. The savings and demand reductions for demand response programs do not persist beyond the year in which those particular savings and demand reductions occur.

For some programs, savings or demand reductions in a particular year persist into subsequent years, but do not persist fully through 2014. In these cases, the IESO was requested to provide estimates by year of the persistence of savings or reductions in each year.

These are the best, most definitive and defensible estimates of results associated with these programs, and incorporate the most appropriate estimates of results from the measures installed.

However, these data have some limitations, and require some adjustments for use in lost revenue calculations.

### *Allocating results to rate classes*

The IESO reports results by 'program', within four main programs: residential, business, industrial and low-income. These only partially map onto rate classes. For initiatives that apply to more than one rate class, Peterborough Distribution Inc. staff estimated the split by rate class, drawing on participant-specific information where available.

### *Application of Reported Results*

As previously mentioned, the IESO reports both energy savings and reductions in demand. Depending on the rate class, distribution revenue is based on either kilowatt-hours used, or the customer's monthly peak kilowatt use. For rate classes where the customer is charged for distribution by energy use (kWh), the IESO reported energy savings are used to calculate lost revenues related to CDM results.

For customer classes where the LDC charges for distribution based on the customer's peak monthly demand (kW), the demand reductions in the IESO report may not be realized in every month. For initiatives like lighting upgrades in businesses operating during normal business hours the demand savings are likely to be maintained throughout the year, including during the customer's monthly peaks. In the case of demand response programs, in particular Demand Response 3 (DR3), the demand reduction may only apply to certain months in the year. These considerations have been factored into the lost revenue calculations.

There have been arguments advanced around the uncertainty regarding the impact of DR3 program results on LDC revenues. However, the OEB has considered these arguments and has been consistent in recent rate cases in ruling that the IESO's analyses with respect to CDM results may be used to estimate lost revenues, including those related to DR3 programs.<sup>2</sup>

### *Load reductions accounted for in the load forecast*

In recent years, LDCs have tried to account for load losses due to CDM programs in their load forecasts, submitted as part of their Cost of Service applications. These forecasted reductions need to be deducted from load losses attributable to CDM programs, to determine the final impact of CDM on revenues. That is, the impact is the *variance* between the results accounted for in the load forecast and the results attributable to the programs.

### *Overall impact of CDM on load, by rate class*

The overall impact of CDM energy savings and demand reductions on load is calculated from the IESO energy savings and peak demand reductions, allocated by rate class. Finally the difference is calculated between the overall estimated impact on loads and the load reductions

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<sup>2</sup> See PowerStream 2014 rate decision, EB-2014-0108, pp. 5-6.

attributable to CDM that were captured in the most recent load forecast.

### *Distribution rates*

Lost revenues for the LDC associated with CDM arise from reductions in the volumetric distribution rate. Most other rate components (e.g. service charges, global adjustment, transmission charges) are either fixed charges, or are just pass-throughs for the utility, so do not affect the LDC's revenues. An exception is for certain rate riders related to taxes, and these are added to the volumetric distribution charges, where applicable.

For most electricity distribution utilities in Ontario, including Peterborough Distribution Inc., distribution rates are set for the period from 1 May to 30 April of the next year. CDM results are reported for the calendar year, so average rates for the calendar year need to be calculated. For simplicity, the average rate is estimated based on the rate being four twelfths of the previous year's rate (for January through April), and eight twelfths of the current year's rate (for May through December).<sup>3</sup>

### *Lost revenues variance*

Lost revenues in a particular rate class are the product of the savings or demand reductions in that class, less what was accounted for in the load forecast, multiplied by the average rate for that class in the calendar year for which the energy savings or demand reductions were reported.<sup>4</sup> The variance is the difference between these lost revenues and the quantity of CDM in the load forecast.

Because these revenues are lost throughout the year, and are only recovered through rate riders in subsequent years, the Ontario Energy Board has permitted the LDCs to claim carrying charges on these lost revenues at a rate prescribed by the OEB, and published on the Board's website. The carrying charges are simple interest, not compounded and are calculated on the monthly lost revenue balance. Because the IESO final results estimates are reported annually, and monthly estimates are not available, the incremental results are assumed to be equally distributed across the months. So 1/12 of the annual results are allocated to each month of the year.

Carrying charges accrue from the time of the results, until disposition.

These lost revenues are reported by the LDC in its financial statements in Account 1568, and the associated rate class-specific sub-accounts.

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<sup>3</sup> The exception in Peterborough Distribution Inc.'s case is the 2013-2014 rates that were not implemented until September 1, 2013. The formula to pro-rate the 2013 rates for lost revenue estimation were adjusted appropriately to account for this.

<sup>4</sup> Where distribution rates are monthly rates for the peak kW in that month, the annual loss of revenue is the monthly rate times the number of months it applies to – usually twelve.

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## Results

Following the methodology described above, lost revenues were calculated for Peterborough Distribution Inc.

### *CDM results*

#### *IESO evaluation results*

CDM results reported by the IESO are in Appendix A. The Appendix consists of the following tables:

- The final 2011, 2012, 2013, and 2014 results for Peterborough Distribution Inc. are shown in Table 1; and
- The adjustments to verified final 2011, 2012, and 2013 results for Peterborough Distribution Inc. are shown in Table 2.<sup>5</sup>

The gross results were provided by the IESO, but are not included in this report, as only net results are relevant for the purposes of estimating lost revenues.

Table A-1 in Appendix A shows the persistence of 2011 results into future years. Table A-2 in Appendix A shows the persistence of 2012 results into future years. Table A-3 in Appendix A shows the persistence of 2013 results through 2014. Table A-4 in Appendix A shows the persistence of 2011 adjustments into future years. Table A-5 in Appendix A shows the persistence of 2012 adjustments into future years. Table A-6 in Appendix A shows the persistence of 2013 adjustments through 2014. The IESO has provided Peterborough Distribution Inc. with persistence data for 2011 to 2014 results and 2011 to 2013 adjustments.

#### *Allocating results to rate classes*

Peterborough Distribution Inc. provided information on the allocation of results to rate classes. In most cases, the allocation is straightforward. Initiatives that can span multiple rate classes include Retrofit, Building Commissioning, New Construction, Energy Audit, Demand Response 3, Process & Systems Upgrades, Monitoring & Targeting, Energy Manager, Electricity Retrofit Incentive Program and High Performance New Construction. No allocation was provided for programs for which Peterborough Distribution Inc. has no program results.

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<sup>5</sup> *Verified 2011-2014 Final Results Report for Peterborough Distribution Incorporated*. Independent Electricity System Operator. September 1, 2015.

Peterborough Distribution Inc. bills customers in different rate classes using different volumetric units, either kilowatt hours (kWh), or customer peak monthly kilowatts (kW). The rate classes (and billing units) for Peterborough Distribution Inc. are:

- Residential (kWh)
- GS <50 kW (kWh)
- GS 50 to 4,999 kW (kW)
- Large Use (kW)
- Unmetered Scattered Load (kWh)
- Sentinel Lighting (kW)
- Street Lighting (kW)
- MicroFIT Generator (NA)

Table B-1 in Appendix B shows the percentage allocation by rate class for 2011 adjustments. Table B-2 in Appendix B shows the percentage allocation by rate class for 2012 results and adjustments. Table B-3 in Appendix B shows the percentage allocation by rate class for 2013 results and adjustments. Table B-4 in Appendix B shows the percentage allocation by rate class for 2014 results.

#### *Load reductions accounted for in the load forecast*

Peterborough Distribution Inc.'s last Cost of Service application was filed for the 2013 rate year. The load forecast associated with that application did account for load losses from 2011 – 2014 CDM programs. Table B-5 in Appendix B shows the estimates of load reductions, by rate class that were included at the time of the load forecast. Previous load forecasts did not account for CDM.

#### *Overall impact of CDM on load, by rate class*

Multiplying the energy savings or demand reduction reported for Peterborough Distribution Inc. for each program by the allocation by rate class provides the impact on load of that CDM program within the appropriate rate class. The sum of the energy savings and demand reductions for all of the programs for each rate class provides the overall impact of CDM on load by rate class.

Table B-6 in Appendix B shows the overall impact of CDM on load, by rate class for 2012. This includes the 2012 CDM program results and adjustments to the 2012 results plus the persistence of the 2011 program results and adjustments in 2012 allocated by rate class.

Table B-7 in Appendix B shows the overall impact of CDM on load, by rate class for 2013. This includes the 2013 CDM program results and adjustments to the 2013 results plus the persistence of the 2011 and 2012 program results and adjustments in 2013 allocated by rate class.

Table B-8 in Appendix B shows the overall impact of CDM on load, by rate class for 2014. This includes the 2014 CDM program results plus

the persistence of the 2011 to 2013 program results and adjustments in 2014 allocated by rate class.

### *Distribution rates*

The distribution rates that impact lost revenue for each rate class for Peterborough Distribution Inc. are shown in Table C-1 in Appendix C. The distribution rates for the period from 1 May of each year to 30 April of the next year are pro-rated by number of months to each calendar year in the 2011 to 2014 time period. The rates in 2013 were effective September 1, 2013 and the calculation to pro-rate the distribution rates for 2013 were adjusted accordingly.

### *Lost revenues*

The lost revenues for each year by rate class for Peterborough Distribution Inc. calculated from final CDM program results are shown in Table C-2 in Appendix C. The lost revenue for each year is based on the load impact for each rate class in that year multiplied by the rate for that rate class in that year.

The lost revenue for 2011-2014 is based on final verified results provided by the IESO.

The amounts shown on Table C-2 also account for the lost revenue due to CDM that has already been incorporated into the load forecast. The impact on Peterborough Distribution Inc.'s revenue is the variance between what is calculated from final CDM program results and what has already been accounted for in the load forecast.

In Peterborough Distribution Inc.'s 2013 COS rate case (EB-2012-0160), disposition of the 2011 lost revenue amounts in Account 1568 was approved. The lost revenue from 2011 CDM programs in 2011 have not been included in the calculations in Table C-2.

### *Carrying charges*

The monthly carrying charges by rate class on Peterborough Distribution Inc.'s lost revenue variance are shown on Table C-3 in Appendix C. The carrying charges are reported monthly, from the time the lost revenues resulted, through to April 30, 2016.

In Peterborough Distribution Inc.'s 2013 COS rate case (EB-2012-0160), disposition of the carrying charges to April 30, 2013 on the 2011 lost revenue amounts in Account 1568 was approved. Table C-3 does not include carrying charges on lost revenue from 2011 CDM programs in 2011.

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## Conclusions

The LRAMVA balance at the end of December 2014 for Peterborough Distribution Inc. that includes results from 2011-2014 CDM programs in 2012-2014 is \$70,101.64. The total carrying charges on this LRAMVA balance accumulated to April 30, 2016 are \$3,215.97. These balances are attributable to individual rate classes according to the following table:

Rate class	LRAMVA	Carrying charges	Total
Residential	-\$11,320.61	-\$113.39	-\$11,434.00
GS < 50 kW	\$102,420.82	\$3,730.86	\$106,151.67
GS 50 to 4,999 kW	-\$12,825.23	-\$126.31	-\$12,951.54
Large Use	\$85.88	-\$14.95	\$70.92
Unmetered Scattered Load	-\$2,261.45	-\$80.83	-\$2,342.28
Sentinel Lighting	-\$387.72	-\$13.32	-\$401.04
Street Lighting	-\$5,610.04	-\$166.08	-\$5,776.12
Totals	<b>\$70,101.64</b>	<b>\$3,215.97</b>	<b>\$73,317.62</b>

NOTE: There is no LRAMVA or carrying charge associated with rate classes not included in this table.

Where negative values are shown, that indicates that the actual reduction in load from CDM programs was less than the amount included in the load forecast.

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## Appendix A.CDM results reported by the IESO

Table 1: Peterborough Distribution Incorporated Initiative and Program Level Net Savings by Year

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
Consumer Program															
Appliance Retirement	Appliances	270	207	122	163	15	12	8	13	106,597	83,226	52,368	64,018	48	844,718
Appliance Exchange	Appliances	39	22	48	46	4	3	10	10	4,184	5,724	17,733	16,994	24	83,913
HVAC Incentives	Equipment	540	517	568	638	192	115	120	144	368,523	203,798	219,437	272,932	572	2,797,291
Conservation Instant Coupon Booklet	Items	3,603	220	2,482	7,366	8	2	4	15	132,571	9,972	54,973	200,826	29	870,974
Bi-Annual Retailer Event	Items	6,791	7,567	6,738	34,412	12	11	8	57	209,601	191,016	122,532	876,584	88	2,533,102
Retailer Co-op	Items	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residential Demand Response	Devices	14	0	28	9,343	8	0	15	3,002	0	0	32	0	3,002	32
Residential Demand Response (IHD)	Devices	0	4	22	846	0	0	0	0	0	0	0	0	0	0
Residential New Construction	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer Program Total						239	143	166	3,241	821,476	493,736	467,075	1,431,354	3,763	7,130,030
Business Program															
Retrofit	Projects	15	43	61	51	66	716	243	138	413,045	2,966,599	1,291,840	1,001,962	1,081	13,698,392
Direct Install Lighting	Projects	42	167	173	160	41	157	152	122	91,318	527,343	519,098	441,916	459	3,390,071
Building Commissioning	Buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Construction	Buildings	0	0	2	1	0	0	1	12	0	0	1,298	8,890	13	11,486
Energy Audit	Audits	0	11	0	0	0	0	0	0	0	0	0	0	0	0
Small Commercial Demand Response	Devices	0	7	10	613	0	4	6	194	0	25	9	0	194	35
Small Commercial Demand Response (IHD)	Devices	0	0	6	6	0	0	0	0	0	0	0	0	0	0
Demand Response 3	Facilities	0	0	1	1	0	0	347	231	0	0	4,636	0	231	4,636
Business Program Total						108	878	749	697	504,363	3,493,967	1,816,881	1,452,767	1,979	17,104,619
Industrial Program															
Process & System Upgrades	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring & Targeting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Energy Manager	Projects	0	1	0	3	0	0	0	262	0	0	0	2,383,594	262	2,383,594
Retrofit	Projects	2	0	0	0	132	0	0	0	824,402	0	0	0	132	3,297,609
Demand Response 3	Facilities	0	1	1	1	0	0	417	417	0	0	9,487	0	417	9,487
Industrial Program Total						132	0	417	679	824,402	0	9,487	2,383,594	811	5,690,690
Home Assistance Program															
Home Assistance Program	Homes	0	175	539	288	0	16	43	15	0	157,580	396,853	156,537	73	1,414,301
Home Assistance Program Total						0	16	43	15	0	157,580	396,853	156,537	73	1,414,301
Aboriginal Program															
Home Assistance Program	Homes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Direct Install Lighting	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aboriginal Program Total						0	0	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	11	0	0	0	67	0	0	0	321,610	0	0	0	67	1,286,442
High Performance New Construction	Projects	1	0	0	0	21	1	0	0	105,956	781	0	0	21	426,165
Toronto Comprehensive	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LDC Custom Programs	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-2011 Programs completed in 2011 Total						87	1	0	0	427,566	781	0	0	88	1,712,607
Other															
Program Enabled Savings	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time-of-Use Savings	Homes	0	0	0	n/a	0	0	0	359	0	0	0	0	359	0
LDC Pilots	Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Total						0	0	0	359	0	0	0	0	359	0
Adjustments to 2011 Verified Results															
Adjustments to 2012 Verified Results															
Adjustments to 2013 Verified Results															
Energy Efficiency Total						558	1,033	588	1,147	2,577,808	4,146,039	2,676,132	5,424,251	3,228	33,038,059
Demand Response Total (Scenario 1)						8	4	785	3,845	0	25	14,164	0	3,845	14,189
Adjustments to Previous Years' Verified Results Total						0	-25	102	88	0	-30,586	402,116	411,052	165	1,942,955
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						566	1,013	1,476	5,080	2,577,808	4,115,478	3,092,412	5,835,303	7,238	34,995,203
Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).												Full OEB Target:		8,720	38,450,000
*Includes adjustments after Final Reports were issued												% of Full OEB Target Achieved to Date (Scenario 1):		83.0%	91.0%
Results presented using scenario 1 which assumes that demand response resources have a persistence of 1 year															

Table 2: Adjustments to Peterborough Distribution Incorporated Net Verified Results due to Variances

Initiative	Unit	Incremental Activity (new program activity occurring within the specified reporting period)				Net Incremental Peak Demand Savings (kW) (new peak demand savings from activity within the specified reporting period)				Net Incremental Energy Savings (kWh) (new energy savings from activity within the specified reporting period)				Program-to-Date Verified Progress to Target (excludes DR)	
		2011*	2012*	2013*	2014	2011	2012	2013	2014	2011	2012	2013	2014	2014 Net Annual Peak Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)
														2014	2014
Consumer Program															
Appliance Retirement	Appliances	0	0	0		0	0	0		0	0	0		0	0
Appliance Exchange	Appliances	0	0	0		0	0	0		0	0	0		0	0
HVAC Incentives	Equipment	-87	14	42		-26	3	9		-50,213	5,577	17,180		-14	-149,765
Conservation Instant Coupon Booklet	Items	59	0	7		0	0	0		1,966	0	168		0	8,200
Bi-Annual Retailer Event	Items	584	0	0		1	0	0		15,573	0	0		1	62,291
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Residential New Construction	Homes	0	0	0		0	0	0		0	0	0		0	0
Consumer Program Total						-25	3	9		-32,675	5,577	17,348		-13	-79,274
Business Program															
Retrofit	Projects	0	3	3		0	83	17		0	319,323	100,099		100	1,156,503
Direct Install Lighting	Projects	1	3	1		1	1	1		3,239	2,790	2,522		3	24,218
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	1		0	0	11		0	0	7,384		11	14,767
Energy Audit	Audits	0	11	0		0	45	0		0	220,931	0		45	662,793
Small Commercial Demand Response	Devices	0	0	0		0	0	0		0	0	0		0	0
Small Commercial Demand Response (IHD)	Devices	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Business Program Total						1	130	29		3,239	543,044	110,004		158	1,858,281
Industrial Program															
Process & System Upgrades	Projects	0	0	0		0	0	0		0	0	0		0	0
Monitoring & Targeting	Projects	0	0	0		0	0	0		0	0	0		0	0
Energy Manager	Projects	0	1	0		0	1	1		0	7,884	15,587		20	168,550
Retrofit	Projects	0	0	0		0	0	0		0	0	0		0	0
Demand Response 3	Facilities	0	0	0		0	0	0		0	0	0		0	0
Industrial Program Total						0	1	1		0	7,884	15,587		20	168,550
Home Assistance Program															
Home Assistance Program	Homes	0	0	0		0	0	0		0	0	0		0	0
Home Assistance Program Total						0	0	0		0	0	0		0	0
Aboriginal Program															
Home Assistance Program	Homes	0	0	0		0	0	0		0	0	0		0	0
Direct Install Lighting	Projects	0	0	0		0	0	0		0	0	0		0	0
Aboriginal Program Total						0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011															
Electricity Retrofit Incentive Program	Projects	0	0	0		0	0	0		0	0	0		0	0
High Performance New Construction	Projects	0	0	0		0	0	0		-1,151	0	0		0	-4,602
Toronto Comprehensive	Projects	0	0	0		0	0	0		0	0	0		0	0
Multifamily Energy Efficiency Rebates	Projects	0	0	0		0	0	0		0	0	0		0	0
LDC Custom Programs	Projects	0	0	0		0	0	0		0	0	0		0	0
Pre-2011 Programs completed in 2011 Total						0	0	0		-1,151	0	0		0	-4,602
Other															
Program Enabled Savings	Projects	0	0	0		0	0	0		0	0	0		0	0
Time-of-Use Savings	Homes	0	0	0		0	0	0		0	0	0		0	0
LDC Pilots	Projects	0	0	0		0	0	0		0	0	0		0	0
Other Total						0	0	0		0	0	0		0	0
Adjustments to 2011 Verified Results						-25				-30,586				-25	-124,497
Adjustments to 2012 Verified Results							133				556,505			133	1,667,850
Adjustments to 2013 Verified Results								39				142,939		58	399,602
Total Adjustments to Previous Years' Verified Results						-25	133	39		-30,586	556,505	142,939		165	1,942,955

Activity and savings for Demand Response resources for each year represent the savings from all active facilities or devices contracted since January 1, 2011 (reported cumulatively).

Adjustments to previous years' results shown in this table will not align to adjustments shown in Table 1 as the information presented above is presented in the implementation year. Adjustments in Table 1 reflect persisted savings in the year in which that adjustment is verified.

Table A-1: Persistence of 2011 results into future years

	Persistence of 2011 results					
	2012		2013		2014	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>						
Appliance Retirement	15	106,597	15	106,597	15	106,495
Appliance Exchange	4	4,184	4	4,184	1	1,730
HVAC Incentives	192	368,523	192	368,523	192	368,523
Conservation Instant Coupon Booklet	8	132,571	8	132,571	8	132,571
Bi-Annual Retailer Event	12	209,601	12	209,601	12	209,601
Retailer Co-op Residential Demand Response						
Residential New Construction						
<b>Business Program</b>						
Retrofit	66	413,045	66	413,045	66	413,045
Direct Install Lighting Building Commissioning	41	91,318	41	90,949	30	64,033
New Construction Energy Audit						
Small Commercial Demand Response						
Demand Response 3						
<b>Industrial Program</b>						
Process & System Upgrades						
Monitoring & Targeting						
Energy Manager						
Retrofit	132	824,402	132	824,402	132	824,402
Demand Response 3						
<b>Home Assistance Program</b>						
Home Assistance Program						
<b>Pre-2011 Programs completed in 2011</b>						
Electricity Retrofit Incentive Program	67	321,610	67	321,610	67	321,610
High Performance New Construction	21	105,956	21	105,956	21	105,956
<b>Totals</b>	<b>558</b>	<b>2,577,808</b>	<b>558</b>	<b>2,577,438</b>	<b>545</b>	<b>2,547,967</b>

Note: Persistence of results is as reported by the IESO.

Table A-2: Estimated persistence of 2012 results into future years

Persistence of 2012 results				
	2013		2014	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>				
Appliance Retirement	12	83,226	12	83,226
Appliance Exchange	3	5,724	3	5,724
HVAC Incentives	115	203,798	115	203,798
Conservation Instant Coupon Booklet	2	9,972	2	9,972
Bi-Annual Retailer Event	11	191,016	11	191,016
Retailer Co-Op				
Residential Demand Response (switch/pstat)				
Residential Demand Response (IHD)				
Residential New Construction				
<b>Business Program</b>				
Retrofit	663	2,793,928	635	2,700,043
Direct Install Lighting Building Commissioning	157	527,343	155	517,848
New Construction				
Energy Audit				
Small Commercial Demand Response (switch/pstat)				
Small Commercial Demand Response (IHD)				
Demand Response 3				
<b>Industrial Program</b>				
Process & System Upgrades				
Monitoring & Targeting				
Energy Manager				
Retrofit				
Demand Response 3				
<b>Home Assistance Program</b>				
Home Assistance Program	16	157,580	16	157,580
<b>Pre-2011 Programs completed in 2011</b>				
Electricity Retrofit Incentive Program				
High Performance New Construction	1	781	1	781
<b>Totals</b>	<b>980</b>	<b>3,973,368</b>	<b>949</b>	<b>3,869,989</b>

Note: Persistence of results is as reported by the IESO.

**Table A-3: Estimated persistence of 2013 results into future years**

<b>Persistence of 2013 results</b>		
<b>2014</b>		
	<b>Incremental Peak Demand Savings (kW)</b>	<b>Incremental Energy Savings (kWh)</b>
<b>Consumer Program</b>		
Appliance Retirement	8	52,368
Appliance Exchange	10	17,733
HVAC Incentives	120	219,437
Conservation Instant Coupon Booklet	4	54,973
Bi-Annual Retailer Event	8	122,532
Retailer Co-Op		
Residential Demand Response (switch/pstat)		
Residential Demand Response (IHD)		
Residential New Construction		
<b>Business Program</b>		
Retrofit	243	1,291,840
Direct Install Lighting	152	518,906
Building Commissioning		
New Construction	1	1,298
Energy Audit		
Small Commercial Demand Response (switch/pstat)		
Small Commercial Demand Response (IHD)		
Demand Response 3		
<b>Industrial Program</b>		
Process & System Upgrades		
Monitoring & Targeting		
Energy Manager		
Retrofit		
Demand Response 3		
<b>Home Assistance Program</b>		
Home Assistance Program	42	388,171
<b>Totals</b>	<b>588</b>	<b>2,667,259</b>

Note: Persistence of results is as reported by the IESO.

Table A-4: Persistence of 2011 adjustments into future years

	Persistence of 2011 adjustments					
	2012		2013		2014	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>						
Appliance Retirement						
Appliance Exchange						
HVAC Incentives	-26	-50,213	-26	-50,213	-26	-50,213
Conservation Instant Coupon Booklet	0	1,966	0	1,966	0	1,966
Bi-Annual Retailer Event	1	15,573	1	15,573	1	15,573
Retailer Co-Op Residential Demand Response (switch/pstat)						
Residential Demand Response (IHD)						
Residential New Construction						
<b>Business Program</b>						
Retrofit						
Direct Install Lighting Building Commissioning	1	3,239	1	2,163	1	2,163
New Construction Energy Audit						
Small Commercial Demand Response (switch/pstat)						
Small Commercial Demand Response (IHD)						
Demand Response 3						
<b>Industrial Program</b>						
Process & System Upgrades						
Monitoring & Targeting						
Energy Manager						
Retrofit						
Demand Response 3						
<b>Home Assistance Program</b>						
Home Assistance Program						
<b>Pre-2011 Programs completed in 2011</b>						
Electricity Retrofit Incentive Program						
High Performance New Construction	0	-1,151	0	-1,151	0	-1,151
<b>Totals</b>	<b>-25</b>	<b>-30,586</b>	<b>-25</b>	<b>-31,662</b>	<b>-25</b>	<b>-31,662</b>

Note: Persistence of results is as reported by the IESO.

Table A-5: Persistence of 2012 adjustments into future years

Persistence of 2012 adjustments				
	2013		2014	
	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>				
Appliance Retirement				
Appliance Exchange				
HVAC Incentives	3	5,577	3	5,577
Conservation Instant				
Coupon Booklet				
Bi-Annual Retailer				
Event				
Retailer Co-Op				
Residential Demand				
Response				
(switch/pstat)				
Residential Demand				
Response (IHD)				
Residential New				
Construction				
<b>Business Program</b>				
Retrofit	83	319,323	83	317,658
Direct Install Lighting	1	2,790	1	2,790
Building				
Commissioning				
New Construction				
Energy Audit	44	218,369	44	218,369
Small Commercial				
Demand Response				
(switch/pstat)				
Small Commercial				
Demand Response				
(IHD)				
Demand Response 3				
<b>Industrial Program</b>				
Process & System				
Upgrades				
Monitoring &				
Targeting				
Energy Manager	1	7,884	1	7,884
Retrofit				
Demand Response 3				
<b>Home Assistance Program</b>				
Home Assistance				
Program				
<b>Totals</b>	<b>133</b>	<b>553,943</b>	<b>132</b>	<b>552,278</b>

Note: Persistence of results is as reported by the IESO.

**Table A-6: Persistence of 2013 adjustments into future years**

<b>Persistence of 2013 adjustments</b>		
<b>2014</b>		
	<b>Incremental Peak Demand Savings (kW)</b>	<b>Incremental Energy Savings (kWh)</b>
<b>Consumer Program</b>		
Appliance Retirement		
Appliance Exchange		
HVAC Incentives	9	17,180
Conservation Instant Coupon Booklet		
Bi-Annual Retailer Event		
Retailer Co-Op		
Residential Demand Response (switch/pstat)		
Residential Demand Response (IHD)		
Residential New Construction		
<b>Business Program</b>		
Retrofit	17	100,099
Direct Install Lighting	1	2,522
Building Commissioning		
New Construction	11	7,384
Energy Audit		
Small Commercial Demand Response (switch/pstat)		
Small Commercial Demand Response (IHD)		
Demand Response 3		
<b>Industrial Program</b>		
Process & System Upgrades		
Monitoring & Targeting		
Energy Manager	20	129,311
Retrofit		
Demand Response 3		
<b>Home Assistance Program</b>		
Home Assistance Program		
<b>Totals</b>	<b>58</b>	<b>256,495</b>

Note: Persistence of results is as reported by the IESO.

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## Appendix B. CDM results breakdown by rate class

**Table B-1: Percentage allocation by rate class for 2011 results and adjustments**

<b>Initiative</b>	<b>Residential</b>	<b>GS &lt; 50 kW</b>	<b>GS 50 to 4,999 kW</b>	<b>Large Use</b>	<b>Unmetered Scattered Load</b>	<b>Sentinel Lighting</b>	<b>Street Lighting</b>
<b>Consumer Program</b>							
Appliance Retirement	100%						
Appliance Exchange	100%						
HVAC Incentives	100%						
Conservation Instant Coupon Booklet	100%						
Bi-Annual Retailer Event	100%						
Retailer Co-op	100%						
Residential Demand Response	100%						
Residential New Construction	100%						
<b>Business Program</b>							
Retrofit		100%					
Direct Install Lighting Building Commissioning		100%					
New Construction							
Energy Audit							
Small Commercial Demand Response							
Demand Response 3							
<b>Industrial Program</b>							
Process & System Upgrades							
Monitoring & Targeting							
Energy Manager							
Retrofit			100%				
Demand Response 3							
<b>Home Assistance Program</b>							
Home Assistance Program	100%						
<b>Pre-2011 Programs completed in 2011</b>							
Electricity Retrofit Incentive Program			100%				
High Performance New Construction			100%				

Source: Peterborough Distribution Inc.

Table B-2: Percentage allocation by rate class for 2012 results and adjustments

Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting
<b>Consumer Program</b>							
Appliance Retirement	100%						
Appliance Exchange	100%						
HVAC Incentives	100%						
Conservation Instant Coupon Booklet	100%						
Bi-Annual Retailer Event	100%						
Retailer Co-Op	100%						
Residential Demand Response	100%						
(switch/pstat)							
Residential Demand Response (IHD)	100%						
Residential New Construction	100%						
<b>Business Program</b>							
Retrofit		86%	19%				
Direct Install Lighting Building Commissioning		100%					
New Construction							
Energy Audit		4%	96%				
Small Commercial Demand Response		100%					
(switch/pstat)							
Small Commercial Demand Response (IHD)							
Demand Response 3							
<b>Industrial Program</b>							
Process & System Upgrades							
Monitoring & Targeting							
Energy Manager				100%			
Retrofit							
Demand Response 3							
<b>Home Assistance Program</b>							
Home Assistance Program	100%						
<b>Pre-2011 Programs completed in 2011</b>							
Electricity Retrofit Incentive Program							
High Performance New Construction			100%				

Source: Peterborough Distribution Inc.

Table B-3: Percentage allocation by rate class for 2013 results and adjustments

Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting
<b>Consumer Program</b>							
Appliance Retirement	100%						
Appliance Exchange	100%						
HVAC Incentives	100%						
Conservation Instant Coupon Booklet	100%						
Bi-Annual Retailer Event	100%						
Retailer Co-Op	100%						
Residential Demand Response	100%						
(switch/pstat)							
Residential Demand Response (IHD)	100%						
Residential New Construction	100%						
<b>Business Program</b>							
Retrofit		76%	15%				
Direct Install Lighting Building Commissioning		100%					
New Construction		100%					
Energy Audit							
Small Commercial Demand Response (switch/pstat)		100%					
Small Commercial Demand Response (IHD)							
Demand Response 3			100%				
<b>Industrial Program</b>							
Process & System Upgrades							
Monitoring & Targeting							
Energy Manager				100%			
Retrofit							
Demand Response 3			100%				
<b>Home Assistance Program</b>							
Home Assistance Program	100%						

Source: Peterborough Distribution Inc.

**Table B-4: Percentage allocation by rate class for 2014 results**

Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting
<b>Consumer Program</b>							
Appliance Retirement	100%						
Appliance Exchange	100%						
HVAC Incentives	100%						
Conservation Instant Coupon Booklet	100%						
Bi-Annual Retailer Event	100%						
Retailer Co-Op	100%						
Residential Demand Response	100%						
(switch/pstat)							
Residential Demand Response (IHD)	100%						
Residential New Construction	100%						
<b>Business Program</b>							
Retrofit		41%	52%	1%			
Direct Install Lighting Building Commissioning		100%					
New Construction		67%	33%				
Energy Audit							
Small Commercial Demand Response (switch/pstat)		100%					
Small Commercial Demand Response (IHD)							
Demand Response 3			100%				
<b>Industrial Program</b>							
Process & System Upgrades							
Monitoring & Targeting							
Energy Manager				100%			
Retrofit							
Demand Response 3			100%				
<b>Home Assistance Program</b>							
Home Assistance Program	100%						

Source: Peterborough Distribution Inc.

**Table B-5: Load reductions included in load forecast for 2013 cost of service application for Peterborough Distribution Inc.**

Forecast year	Residential kWh	GS < 50 kW kWh	GS 50 to 4,999 kW kW	Large Use kW	Unmetered Scattered Load kWh	Sentinel Lighting kW	Street Lighting kW
2011							
2012							
2013	4,293,238	1,636,493	12,600	1,679	24,135	29	220
2014	4,293,238	1,636,493	12,600	1,679	24,135	29	220

Notes: The load reductions are from the Settlement Agreement, which forms part of the 2013 Cost of Service decision.

(Table #7, p. 22, of the Decision and Order for EB-2012-0160, dated July 24, 2013).

Where billing is in kW, forecast quantities are already kW-mo values.

Table B-6: Impact of CDM on load by rate class for 2012

Initiative	Residential kWh	GS < 50 kW kWh	GS 50 to 4,999 kW kW	Large Use kW	Unmetered Scattered Load kWh	Sentinel Lighting kW	Street Lighting kW
<b>Consumer Program</b>							
Appliance Retirement	189,823						
Appliance Exchange	9,908						
HVAC Incentives	527,684						
Conservation Instant Coupon Booklet	144,510						
Bi-Annual Retailer Event	416,190						
Retailer Co-Op							
Residential Demand Response (switch/pstat)							
Residential Demand Response (IHD)							
Residential New Construction							
<b>Business Program</b>							
Retrofit		3,254,640	1,784				
Direct Install Lighting Building Commissioning		624,690					
New Construction							
Energy Audit		8,604	518				
Small Commercial Demand Response (switch/pstat)		25					
Small Commercial Demand Response (IHD)							
Demand Response 3							
<b>Industrial Program</b>							
Process & System Upgrades							
Monitoring & Targeting							
Energy Manager Retrofit			1,584	10			
Demand Response 3							
<b>Home Assistance Program</b>							
Home Assistance Program	157,580						
<b>Pre-2011 Programs completed in 2011</b>							
Electricity Retrofit Incentive Program			801				
High Performance New Construction			252				
<b>Total</b>	1,445,695	3,887,960	4,939	10			

Note: Values are the product of the results by program from Table 1 plus adjustments from Table 2 multiplied by the allocation in Table B-2 plus the persistence of results and adjustments from previous years in Tables A-1 and A-4 multiplied by the allocation in Table B-1. Monthly kW values are multiplied by 12 to provide annual load impacts.

Table B-7: Impact of CDM on load by rate class for 2013

Initiative	Residential kWh	GS < 50 kW kWh	GS 50 to 4,999 kW kW	Large Use kW	Unmetered Scattered Load kWh	Sentinel Lighting kW	Street Lighting kW
<b>Consumer Program</b>							
Appliance Retirement	242,191						
Appliance Exchange	27,641						
HVAC Incentives	764,300						
Conservation Instant Coupon Booklet	199,651						
Bi-Annual Retailer Event	538,722						
Retailer Co-Op Residential Demand Response	32						
(switch/pstat) Residential Demand Response (IHD) Residential New Construction							
<b>Business Program</b>							
Retrofit		4,162,727	2,121				
Direct Install Lighting Building Commissioning		1,144,865					
New Construction		8,682					
Energy Audit		8,505	512				
Small Commercial Demand Response (switch/pstat)		9					
Small Commercial Demand Response (IHD)							
Demand Response 3			1,042				
<b>Industrial Program</b>							
Process & System Upgrades Monitoring & Targeting							
Energy Manager				27			
Retrofit			1,584				
Demand Response 3			1,250				
<b>Home Assistance Program</b>							
Home Assistance Program	554,433						
<b>Pre-2011 Programs completed in 2011</b>							
Electricity Retrofit Incentive Program			801				
High Performance New Construction			252				
<b>Total</b>	2,326,970	5,324,787	7,560	27			

Note: Values are the product of the results by program from Table 1 plus adjustments from Table 2 multiplied by the allocations in Table B-3 plus the persistence of results and adjustments from previous years in Tables A-1 to A-2 and A-4 to A-5 multiplied by the allocations in Table B-1 and B-2. Monthly kW values are multiplied by 12 to provide annual load impacts.

Table B-8: Impact of CDM on load by rate class for 2014

Initiative	Residential kWh	GS < 50 kW kWh	GS 50 to 4,999 kW kW	Large Use kW	Unmetered Scattered Load kWh	Sentinel Lighting kW	Street Lighting kW
<b>Consumer Program</b>							
Appliance Retirement	306,107						
Appliance Exchange	42,182						
HVAC Incentives	1,037,232						
Conservation Instant Coupon Booklet	400,308						
Bi-Annual Retailer Event	1,415,307						
Retailer Co-Op Residential Demand Response (switch/pstat)							
Residential Demand Response (IHD)							
Residential New Construction							
<b>Business Program</b>							
Retrofit		4,490,686	2,920	9			
Direct Install Lighting Building Commissioning		1,550,178					
New Construction		14,638	47				
Energy Audit		8,505	512				
Small Commercial Demand Response (switch/pstat)							
Small Commercial Demand Response (IHD)							
Demand Response 3			694				
<b>Industrial Program</b>							
Process & System Upgrades Monitoring & Targeting							
Energy Manager				3,393			
Retrofit			1,584				
Demand Response 3			1,250				
<b>Home Assistance Program</b>							
Home Assistance Program	702,288						
<b>Pre-2011 Programs completed in 2011</b>							
Electricity Retrofit Incentive Program			801				
High Performance New Construction			252				
<b>Total</b>	3,903,424	6,064,006	8,060	3,402			

Note: Values are the product of the results by program from Table 1 plus adjustments from Table 2 multiplied by the allocations in Table B-4 plus the persistence of results and adjustments from previous years in Tables A-1 to A-6 multiplied by the allocations in Table B-1 to B-3. Monthly kW values are multiplied by 12 to provide annual load impacts.

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## Appendix C. Lost revenue

**Table C-1: Distribution rates that impact lost revenue for each rate class**

<b>Rate class</b>	<b>Billing unit</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Residential	kWh	0.0113	0.0111	0.0115	0.0122
GS < 50 kW	kWh	0.0087	0.0086	0.0085	0.0085
GS 50 to 4,999 kW	kW	2.3791	2.3626	2.4698	2.6536
Large Use	kW	0.7141	0.7031	0.7036	0.7201
Unmetered Scattered Load	kWh	0.1435	0.1430	0.0855	0.0082
Sentinel Lighting	kW	17.4256	17.3121	10.9374	2.4324
Street Lighting	kW	12.7943	12.6198	12.6184	12.8818

Notes: Distribution rates are from OEB approved rate schedules averaged from the rate year to the calendar year. Only the Distribution Volumetric Rate, the Rate Rider for Tax Change, and the Rate Rider for Distribution Volumetric Rate Implementation Deferral (in 2013-2014) are used.

Table C-2: Lost revenues for each year by rate class for Peterborough Distribution Inc.

Year	Component of lost revenue	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting
2012	Current year load losses	1,445,695	3,887,960	4,939	10			
	Forecast load losses							
	Net load losses	1,445,695	3,887,960	4,939	10			
	<b>Revenue impact (\$)</b>	<b>16,047.21</b>	<b>33,436.45</b>	<b>11,667.98</b>	<b>7.21</b>			
2013	Current year load losses	2,326,970	5,324,787	7,560	27			
	Forecast load losses	4,293,238	1,636,493	12,600	1,679	24,135	29	220
	Net load losses	-1,966,268	3,688,294	-5,040	-1,652	-24,135	-29	-220
	<b>Revenue impact (\$)</b>	<b>-22,612.08</b>	<b>31,350.50</b>	<b>-12,446.98</b>	<b>-1,162.20</b>	<b>-2,063.54</b>	<b>-317.18</b>	<b>-2,776.05</b>
2014	Current year load losses	3,903,424	6,064,006	8,060	3,402			
	Forecast load losses	4,293,238	1,636,493	12,600	1,679	24,135	29	220
	Net load losses	-389,814	4,427,513	-4,540	1,723	-24,135	-29	-220
	<b>Revenue impact (\$)</b>	<b>-4,755.73</b>	<b>37,633.86</b>	<b>-12,046.23</b>	<b>1,240.87</b>	<b>-197.91</b>	<b>-70.54</b>	<b>-2,834.00</b>
<b>Total</b>	<b>Revenue impact (\$)</b>	<b>-\$11,320.61</b>	<b>\$102,420.82</b>	<b>-\$12,825.23</b>	<b>\$85.88</b>	<b>-\$2,261.45</b>	<b>-\$387.72</b>	<b>-\$5,610.04</b>

Notes: Load losses are from Tables B-6 to B-8 and include persistence from previous years  
Forecast losses are from Table B-5  
Revenue impact is net load loss multiplied by distribution rates from Table C-1

Table C-3: Monthly carrying charges by rate class for Peterborough Distribution Inc.

	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting
Jan-12							
Feb-12	\$1.64	\$3.41	\$1.19	\$0.00			
Mar-12	\$3.28	\$6.83	\$2.38	\$0.00			
Apr-12	\$4.91	\$10.24	\$3.57	\$0.00			
<b>Opening balance for rate year 2012</b>	<b>\$9.83</b>	<b>\$20.48</b>	<b>\$7.15</b>	<b>\$0.00</b>			
May-12	\$6.55	\$13.65	\$4.76	\$0.00			
Jun-12	\$8.19	\$17.07	\$5.96	\$0.00			
Jul-12	\$9.83	\$20.48	\$7.15	\$0.00			
Aug-12	\$11.47	\$23.89	\$8.34	\$0.01			
Sep-12	\$13.11	\$27.31	\$9.53	\$0.01			
Oct-12	\$14.74	\$30.72	\$10.72	\$0.01			
Nov-12	\$16.38	\$34.13	\$11.91	\$0.01			
Dec-12	\$18.02	\$37.55	\$13.10	\$0.01			
Jan-13	\$19.66	\$40.96	\$14.29	\$0.01			
Feb-13	\$17.35	\$44.16	\$13.02	-\$0.11	-\$0.21	-\$0.03	-\$0.28
Mar-13	\$15.04	\$47.36	\$11.75	-\$0.23	-\$0.42	-\$0.06	-\$0.57
Apr-13	\$12.73	\$50.56	\$10.48	-\$0.35	-\$0.63	-\$0.10	-\$0.85
<b>Opening balance for rate year 2013</b>	<b>\$172.90</b>	<b>\$408.32</b>	<b>\$128.16</b>	<b>-\$0.63</b>	<b>-\$1.26</b>	<b>-\$0.19</b>	<b>-\$1.70</b>
May-13	\$10.42	\$53.76	\$9.21	-\$0.47	-\$0.84	-\$0.13	-\$1.13
Jun-13	\$8.12	\$56.96	\$7.94	-\$0.58	-\$1.05	-\$0.16	-\$1.42
Jul-13	\$5.81	\$60.16	\$6.67	-\$0.70	-\$1.26	-\$0.19	-\$1.70
Aug-13	\$3.50	\$63.36	\$5.40	-\$0.82	-\$1.47	-\$0.23	-\$1.98
Sep-13	\$1.19	\$66.56	\$4.13	-\$0.94	-\$1.69	-\$0.26	-\$2.27
Oct-13	-\$1.12	\$69.76	\$2.86	-\$1.06	-\$1.90	-\$0.29	-\$2.55
Nov-13	-\$3.43	\$72.96	\$1.59	-\$1.18	-\$2.11	-\$0.32	-\$2.83
Dec-13	-\$5.73	\$76.16	\$0.32	-\$1.30	-\$2.32	-\$0.36	-\$3.12
Jan-14	-\$8.04	\$79.36	-\$0.95	-\$1.41	-\$2.53	-\$0.39	-\$3.40
Feb-14	-\$8.53	\$83.21	-\$2.18	-\$1.29	-\$2.55	-\$0.40	-\$3.69
Mar-14	-\$9.01	\$87.05	-\$3.41	-\$1.16	-\$2.57	-\$0.40	-\$3.98
Apr-14	-\$9.50	\$90.89	-\$4.64	-\$1.03	-\$2.59	-\$0.41	-\$4.27
<b>Opening balance for rate year 2014</b>	<b>\$156.58</b>	<b>\$1,268.52</b>	<b>\$155.07</b>	<b>-\$12.58</b>	<b>-\$24.14</b>	<b>-\$3.73</b>	<b>-\$34.04</b>
May-14	-\$9.98	\$94.73	-\$5.87	-\$0.91	-\$2.61	-\$0.42	-\$4.56
Jun-14	-\$10.47	\$98.57	-\$7.10	-\$0.78	-\$2.63	-\$0.42	-\$4.85
Jul-14	-\$10.95	\$102.41	-\$8.33	-\$0.65	-\$2.65	-\$0.43	-\$5.14
Aug-14	-\$11.44	\$106.26	-\$9.56	-\$0.53	-\$2.67	-\$0.44	-\$5.43
Sep-14	-\$11.93	\$110.10	-\$10.79	-\$0.40	-\$2.69	-\$0.45	-\$5.72
Oct-14	-\$12.41	\$113.94	-\$12.02	-\$0.27	-\$2.71	-\$0.45	-\$6.00
Nov-14	-\$12.90	\$117.78	-\$13.25	-\$0.15	-\$2.73	-\$0.46	-\$6.29
Dec-14	-\$13.38	\$121.62	-\$14.48	-\$0.02	-\$2.75	-\$0.47	-\$6.58
Jan-15	-\$13.87	\$125.47	-\$15.71	\$0.11	-\$2.77	-\$0.47	-\$6.87
Feb-15	-\$13.87	\$125.47	-\$15.71	\$0.11	-\$2.77	-\$0.47	-\$6.87
Mar-15	-\$13.87	\$125.47	-\$15.71	\$0.11	-\$2.77	-\$0.47	-\$6.87
Apr-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
<b>Opening balance for rate year 2015</b>	<b>\$11.14</b>	<b>\$2,604.23</b>	<b>\$14.77</b>	<b>-\$15.90</b>	<b>-\$55.95</b>	<b>-\$9.06</b>	<b>-\$104.37</b>
May-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Jun-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Jul-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Aug-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Sep-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Oct-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Nov-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Dec-15	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Jan-16	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Feb-16	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Mar-16	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
Apr-16	-\$10.38	\$93.89	-\$11.76	\$0.08	-\$2.07	-\$0.36	-\$5.14
<b>Total to April 30, 2016</b>	<b>-\$113.39</b>	<b>\$3,730.86</b>	<b>-\$126.31</b>	<b>-\$14.95</b>	<b>-\$80.83</b>	<b>-\$13.32</b>	<b>-\$166.08</b>

Notes: Carrying charges are simple interest (not compound) calculated using rates specified by the OEB. <http://www.ontarioenergyboard.ca/OEB/Industry/Rules+and+Requirements/Rules+Codes+Guidelines+and+Forms/Prescribed+Interest+Rates>  
Annual savings are assumed to be distributed equally over the year and carrying charges are applied to the balance in the account each month.





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*IndEco Strategic Consulting Inc*

77 Mowat Avenue Suite 412 Toronto ON M6K 3E3

1 888 INDECO1 416 532 4333 [info@indeco.com](mailto:info@indeco.com) [www.indeco.com](http://www.indeco.com)