



## PETERBOROUGH DISTRIBUTION INC.

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January 25, 2012

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street, Suite 2700  
Toronto, Ontario  
M4P 1E4

Dear Ms. Walli

**Peterborough Distribution Inc.  
2012 IRM3 Distribution Rate Application  
Response to VECC Staff Interrogatories  
Board File No. EB-2011-0194**

Please find accompanying this letter two hard copies of Peterborough Distribution Inc's response to the VECC Interrogatories. Electronic version of this response will be forwarded to the Board in PDF format.

Yours truly,

*Original signed by Robert Kent*

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## **Board Staff Interrogatories**

### **2012 IRM3 Electricity Distribution Rates Peterborough Distribution Incorporated ("PDI") EB-2011-0194**

#### Lost Revenue Adjustment Mechanism (LRAM)

#### **VECC Question # 1**

**Reference:** Exhibit 1, LRAM and SSM claim

**Preamble:** Peterborough seeks an LRAM claim of \$655,421 plus \$31,420 in carrying charges related to CDM activities for the years 2005 to 2010. The lost revenues are calculated from the year of introduction through to April 30, 2012.

a) Please confirm the years of lost revenue included in the LRAM claim.

Response:

Lost revenues are included for the period between January 1 2005 and April 30 2012, inclusive, for programs launched between 2005 and 2010, inclusive.

b) Please provide a summary of past LRAM claims.

Response:

Peterborough has not previously collected LRAM amounts.

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

Response:

Peterborough confirms that there have not been any lost revenues received in the past and that this is the first application for lost revenue recovery.

d) When was Peterborough's load forecast approved by the Board? Please discuss how the impact of CDM savings have been accounted for in Peterborough's approved load forecast.

Response:

Peterborough's load forecast was last approved by the Board as part of the 2009 Cost of Service application. Peterborough's 2009 Cost of Service Board approved load forecast did not include forecasted CDM program savings.

- e) Please provide the rationale for requesting lost revenues beyond 2010 in the absence of updated input assumptions and verified OPA results.

Response:

PDI is requesting LRAM up to April 30 2012. This LRAM claim is for third tranche programs launched in 2005, 2006, and 2007, as well as OPA programs launched in 2006-2010. LRAM claims between January 1, 2011 and April 30, 2012 result from verified participation rates and persisting savings from these third tranche and OPA programs. The LRAM claim is not based on any unverified, preliminary or estimated program results.

The LRAM claim for third tranche programs was prepared using the best available input assumptions at the time of the independent third party review, as requested by the electricity CDM guidelines EB-2008-0037.

The LRAM claim for OPA programs was also prepared using the best available input assumptions at the time of the independent third party review, which are verified OPA results for 2006-2010 OPA programs.

## **VECC Question # 2**

**Reference:** Exhibit 1, LRAM and SSM claim

- a) List and confirm OPA's input assumptions for Every Kilowatt Counts (EKC) 2006 including the measure life, unit kWh savings and free ridership 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.

Response:

Table 1 compares final OPA-verified 2006 EKC results for 2006 EKC CFLs and seasonal light emitting diodes (SLEDs) to the final OPA-verified 2007 EKC results and the 2009 OPA Measures and Assumptions list. Input assumptions for CFLs and

SLEDs have changed periodically, including most recently in 2009, as reflected in updates to the generic OPA Measures and Assumptions list.

**Table 1. Comparison of inputs from three different sources for CFLs and SLEDs**

Measure	OPA-verified Final 2006 EKC results			OPA-verified Final 2007 EKC results			From 2009 OPA M&A list		
	Measure life	Gross savings (kWh/a)	Free rider rate	Measure life	Gross savings (kWh/a)	Free rider rate	Measure life	Gross savings (kWh/a)	Free rider rate
Energy Star® CFL	4	104	10%	8	43	22%	8	43	30%
SLEDs	30	31	10%	5	14	51%	5	14	30%

- b) 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.

Response:

In IndEco’s third party report, Appendix A, Table 7, pages 22 and 23 (submitted as an attachment to EB-2011-0194), 2006 EKC Spring and Autumn CFLs are listed as contributing \$48,360 and \$71,703 to the total LRAM claim. These claims are broken down as shown in Table 2.

**Table 2. LRAM claims associated with 2006 EKC CFLs**

2006 EKC CFLs	2006	2007	2008	2009	2010	2011	2012	Total
Energy Star® CFL - Spring	\$12,537	\$12,134	\$11,985	\$11,703	\$0	\$0	\$0	\$48,360
Energy Star® CFL - Autumn	\$18,589	\$17,992	\$17,770	\$17,352	\$0	\$0	\$0	\$71,703

As seen in Table 2, savings from 2006 EKC CFLs have been removed from the LRAM claim beginning in 2010.

- c) Adjust the LRAM claim for OPA programs as necessary to reflect the measure lives and unit savings for any/all measures that have expired.

Response:

No adjustments to the current LRAM claim are required in order to reflect measure lives (and unit savings) for OPA measures that have expired.

The requested LRAM claim already accounts for any measures that have expired before the full span of the LRAM claim. The LRAM claim is based on lost revenue over the span of the LRAM claim, or until the end of each measure’s respective

measure life, whichever is shorter. For example, if a measure installed in 2009 had a measure life of 1 year, LRAM was only claimed for that measure between January 1 2009 and December 31 2009.

- d) Identify all Mass Market Measures (CFLS etc) installed in 2005 and 2006 with measure lives of 4 years or less for which savings have been claimed in any prior claim and confirm the input assumptions used.

Response:

PDI has not claimed LRAM on any previous occasion, including LRAM on any mass market measures installed in 2005 and 2006.

- e) Adjust the current Third Tranche LRAM claim as necessary to reflect the measure lives (and unit savings) for any/all measures that have expired.

Response:

No adjustments to the current LRAM claim are required in order to reflect measure lives (and unit savings) for third tranche measures that have expired.

### **VECC Question # 3**

**Reference:** Exhibit 1, LRAM and SSM claim

Preamble: Peterborough proposes to recover an SSM amount of \$56,463.

- a) Please confirm the scope of the SSM recovery.

Response:

The scope of PDI's SSM claim covers the CDM programs in Table 3 on the following page. These are all programs launched in 2005, 2006, and 2007.

**Table 3. Programs for which SSM was claimed**

Rate class	Program
Residential	2005 Energy Star Appliances
Residential	2005 Radio signal to control appliances
Residential	2005 Storage Heating
Residential	2006 Energy Star Appliances
Residential	2006 Every Kilowatt Counts
Residential	2006 Lighting for social housing
Residential	2006 Radio signal to control appliances
Residential	2006 Storage Heating
Residential	2007 Energy Star Appliances
Residential	2007 Every Kilowatt Counts
Residential	2007 Lighting for social housing
Residential	2007 Load monitor
Residential	2007 Radio signal to control appliances
Residential	2007 Storage Heating
Residential, GS < 50 kW	2005 Load monitor
Residential, GS < 50 kW	2006 Load monitor
Residential, GS < 50 kW, GS > 50 kW	2005 Public education
Residential, GS < 50 kW, GS > 50 kW	2006 Public education
Residential, GS < 50 kW, GS > 50 kW	2007 Public education
General Service < 50 kW	2005 Cool Shops

- b) Please confirm that the measure life used in the SSM calculation for CFLs was 4 years and unit savings of 104 kWh based on OEB assumptions.

Response:

PDI confirms that the measure life used in SSM calculations for CFLs was 4 years and unit savings of 104 kWh based on OEB assumptions.

- c) If any SSM claim is to be made in 2010 and beyond under this application, confirm that the 2010 savings for CFLs should be adjusted to recognize the 4 year life for CFLs.

Response:

This application requests SSM claims for programs launched in 2005, 2006 and 2007. It does not include SSM claims for programs launched in 2010 and beyond.

- d) Please adjust the SSM as necessary to account for measures that have expired.

Response:

The SSM claim is based on savings over the measure life of each applicable measure. No adjustment to the SSM claim as filed is necessary to account for measures that have expired.

- e) Please provide a copy of IndEco's TRC calculations.

Response:

IndEco's TRC calculations are prepared using a proprietary TRC calculator using the best input assumptions available in the year immediately prior to the program launch year. Assumptions for all measures are provided in the IndEco report, Appendix A Table 9. The calculations themselves are done internally within the calculator. However, a sample calculation was prepared for 15 W CFLs belonging to the 2007 Lighting for social housing program as an example. IndEco can create the same sample calculations for any measure within PDI's SSM claim upon request. TRC inputs needed to calculate SSM for this measure are shown in Table 4 on the following page.

**Table 4. Inputs to needed for the TRC calculation for the example measure**

Program	2007 Lighting for social housing
Efficiency measure	15 W CFL Screw-In
Base measure	60 W incandescent
Energy savings (kWh)	104.4
Summer peak demand savings (kW)	0
Load profile	Lighting
Measure life (years)	4
Free rider rate	10%
Number of units	18,027
Total program cost (including equipment cost)	\$42,309

TRC calculations for this measure are shown in Table 5 below.

**Table 5. TRC calculations for the example measure**

	Year	Winter Peak	Winter Mid	Winter Off Peak	Summer Peak	Summer Mid	Summer Off Peak	Shoulder Mid	Shoulder Off
Load profile:		15%	7%	19%	0%	11%	13%	17%	17%
× 104.4 kWh for 4 years									
= energy savings in each period per unit:	2007	15.66	7.308	19.836	0	11.484	13.572	17.748	17.748
	2008	15.66	7.308	19.836	0	11.484	13.572	17.748	17.748
	2009	15.66	7.308	19.836	0	11.484	13.572	17.748	17.748
	2010	15.66	7.308	19.836	0	11.484	13.572	17.748	17.748
× Ontario seasonal average avoided energy cost (\$/kWh):	2007	\$0.1246	\$0.0843	\$0.0452	\$0.1115	\$0.0796	\$0.0459	\$0.0814	\$0.0408
	2008	\$0.1154	\$0.0868	\$0.0489	\$0.1106	\$0.0836	\$0.0501	\$0.0904	\$0.0449
	2009	\$0.1119	\$0.0771	\$0.0489	\$0.1045	\$0.0795	\$0.0476	\$0.0858	\$0.0434
	2010	\$0.1135	\$0.0774	\$0.0521	\$0.1070	\$0.0805	\$0.0482	\$0.0835	\$0.0434
= avoided cost savings per unit:	2007	\$1.95	\$0.62	\$0.90	\$0.00	\$0.91	\$0.62	\$1.44	\$0.72
	2008	\$1.81	\$0.63	\$0.97	\$0.00	\$0.96	\$0.68	\$1.60	\$0.80
	2009	\$1.75	\$0.56	\$0.97	\$0.00	\$0.91	\$0.65	\$1.52	\$0.77
	2010	\$1.78	\$0.57	\$1.03	\$0.00	\$0.92	\$0.65	\$1.48	\$0.77
± annual utility discount rate of 7.52%									
= discounted avoided cost per unit:	2007	\$1.95	\$0.62	\$0.90	\$0.00	\$0.91	\$0.62	\$1.44	\$0.72
	2008	\$1.68	\$0.59	\$0.90	\$0.00	\$0.89	\$0.63	\$1.49	\$0.74
	2009	\$1.52	\$0.49	\$0.84	\$0.00	\$0.79	\$0.56	\$1.32	\$0.67
	2010	\$1.43	\$0.46	\$0.83	\$0.00	\$0.74	\$0.53	\$1.19	\$0.62
Total discounted avoided costs per unit:	\$26.07								
× 18,027 units									
with 10% free riders									
=	\$423,033	Total avoided cost (net)							
-	\$42,309	Total program cost							
=	\$380,723	Net TRC benefits							
or	\$19,036	SSM @ 5% of net benefits							