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January 15, 2015

Ms. Kirsten Walli  
Ontario Energy Board  
PO Box 2319  
27th Floor, 2300 Yonge Street  
Toronto, Ontario M4P 1E4

**Re: 2015 IRM4 Rates Application, Interrogatory Responses**  
**Rate Zones: Chatham-Kent, Strathroy, Mount Brydges & Parkhill; Dutton; and Newbury**  
**Board File No.: EB-2014-0064**

Dear Ms. Walli,

Please find enclosed Entegrus Powerlines' responses to Board Staff and Vulnerable Energy Consumers Coalition ("VECC") interrogatories relating to the above referenced file.

If you have any further questions, please do not hesitate to contact me at (519) 352-6300 Ext 243 or via email at [andrya.eagen@entegrus.com](mailto:andrya.eagen@entegrus.com).

Regards,

*[Original Signed By]*

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**ENTEGRUS<sup>®</sup>**  
POWERLINES INC.

## 2015 IRM4 Rates Application

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Interrogatory Response  
Board File No.: EB-2014-0064  
Date Filed: January 15, 2015

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## **SUMMARY OF ATTACHMENTS**

- A. Third Party LRAMVA Report – CK Rate Zone, Version 3
- B. Third Party LRAMVA Report – SMP Rate Zone, Version 3
- C. DVA Disposition Model – Updated January 15, 2015

## BOARD STAFF INTERROGATORY 1

### Reference: Manager's Summary, page 29

On page 29 of the Manager's Summary, Entegrus notes that it is not proposing rate mitigation measures for GS > 50 kW class in the Newbury rate zone which currently has a proposed total bill increase of 17.87%. Entegrus states that approximately 14.43% of the increase is driven by the expiry of significant refund rate riders and that mitigation would have minimal impact for the affected customers.

- a) Has Entegrus informed any of the customers in the GS > 50 kW class in the Newbury rate zone of the proposed rate impacts? If so, are the customers satisfied with Entegrus' proposal? If not, why has Entegrus not consulted with its customers regarding its proposal?

### RESPONSE:

- a) Entegrus confirms that a subset of available customers in the Newbury GS > 50 kW rate class were advised of the proposed rate impacts in 2014. The customers engaged understood that the proposed rate impact is primarily driven by the April 30, 2015 expiry of a Group 1 Variance Account refund rider in the amount of \$4.8686 per kW. This refund rider commenced May 1, 2014, and served to significantly reduce 2014 distribution rates. Earlier consultation with these customers in 2012 and 2013 had confirmed their preference for this refund rider to run over a one year period starting in 2014, rather than for a longer duration.

In the 2014 discussions, the customers expressed to Entegrus their concern over the distribution rate volatility experienced in this rate class, particularly over the past five years. This is a concern that Entegrus shares, noting that the volatility has been driven by three factors:

- i. The Newbury GS > 50 kW rate class currently has 4 customers, which inherently results in year-over-year billing determinant variations. The size of this rate class is a legacy of Entegrus' acquisition of the former Newbury Power in 2009.
- ii. The non-homogeneous operational nature of the customers in the rate class, which results in further year-over-year billing determinant variations. Further, one customer has migrated into (and then out of) this rate class since 2012.
- iii. The post-acquisition reconciliation of legacy Group 1 Variance Accounts of the former Newbury Power by Entegrus, and the subsequent disposition of these balances.<sup>1</sup>

<sup>1</sup> For additional detail, see EB-2012-0119, Manager's Summary page 19, which notes the following:

*"... Group 1 Accounts for the former Dutton Hydro and Newbury Power were not submitted to the Board for disposition by their previous ownership for extended periods of time. Specifically, at the time MPDC acquired Dutton and Newbury on April 30, 2009, Dutton Group 1 Accounts had never been filed with the Board for disposition; Newbury Group 1 Accounts for the period from January 1, 2005 to December 31, 2008 had also not been filed with the Board for disposition. Upon acquisition, Entegrus commenced reconciliation of Group 1 Accounts. Subsequently, Dutton Group 1 balances to December 31, 2004 were approved and disposed in EB-2009-0177, and Dutton balances from January 1, 2005 to December 31, 2008 were approved and disposed in EB-2010-0274. Newbury balances from January 1, 2005 to December 31, 2008 were approved and disposed in EB-2010-0275. Despite mitigation efforts in the above-noted applications, Dutton and Newbury have experienced rate volatility over the past three years as a result of these post-acquisition reconciliation activities."*

Accordingly, Entegrus intends to pursue a proposal to harmonize the current four Entegrus rate zones (Chatham-Kent; Strathroy, Parkhill & Mt. Brydges; Dutton; and Newbury) in its upcoming Cost of Service application for distribution rates effective May 1, 2016. The 2014 discussions with the Newbury GS > 50 kW customers indicate that they would support rate harmonization as a means to dampen the distribution rate volatility that has been experienced.

Further, in preparing this rate application, Entegrus investigated mitigation mechanisms for the Newbury GS > 50 kW rate class, including review of the materials from the Board's consultation "Approaches to Mitigation for Electricity Transmitters and Distributors" (EB-2010-0378). Entegrus was unable to identify any mechanisms that would address the current scenario of rate volatility primarily caused by the expiration of a refund rider. However, Entegrus believes that rate harmonization is an appropriate mechanism to address distribution rate volatility in Newbury on a go forward basis.

## BOARD STAFF INTERROGATORY 2

**Reference: Updated LRAMVA Evidence, Attachment A – Appendix A, Table A-7 and Updated LRAMVA Evidence, Attachment B – Appendix A, Table A-7**

Board staff notes that the percentage allocation of Entegrus' overall load by rate class for 2013, shown in Table A-7 in each of Attachment A and B, is inconsistent between the 3rd party reports provided for the Chatham-Kent and Middlesex service areas.

- a) Please confirm the correct allocation of Entegrus' overall load by rate class for the Chatham-Kent and Middlesex rate zones used in the calculation of the LRAMVA amounts.

### RESPONSE:

- a) After reviewing the above-noted table, it was identified that corrections were required to amend clerical errors in various tables contained in the Third Party LRAMVA Report for both the CK and SMP rate zones.

These changes have resulted in updates to the LRAMVA amounts claimed and the associated carrying charges, as previously filed in the Application and on October 22, 2014. The revised Third Party LRAMVA reports for the CK rate zone and the SMP rate zone are included in Attachment A and B, respectively.

Entegrus has updated the appropriate rate rider calculations included in the DVA Disposition model. A live Excel copy has been included with this submission and in Attachment C of this submission. The changes for the respective rate zones are shown below:

**TABLE CK-01: PROPOSED REVISED LRAMVA RATE RIDER FOR CK RATE ZONE**

Rate Class	Billing Unit	Per Application		Per IR Response	
		Balance	LRAMVA Rate Rider	Balance	LRAMVA Rate Rider
Residential	kWh	\$20,748.99	\$0.0001	\$21,577.30	\$0.0001
General Service <50	kWh	\$48,389.04	\$0.0006	\$49,157.77	\$0.0006
General Service >50	kW	\$22,734.46	\$0.0329	\$23,505.03	\$0.0340
Intermediate	kW	\$8,381.14	\$0.0301	\$8,996.69	\$0.0323
Intermediate w/Self Generation	kW	\$3,348.03	\$0.0381	\$4,246.67	\$0.0483
Unmetered Scattered Load Connections	kWh				
Sentinel Lighting Connections	kW				
Street Lighting Connections	kW				
<b>Total</b>		<b>\$103,601.66</b>		<b>\$107,483.46</b>	

Note: Positive numbers are due from customer, negative are due to customer. Balances are inclusive of carrying charges.

**TABLE SMP-01: PROPOSED REVISED LRAMVA RATE RIDER FOR SMP RATE ZONE**

Rate Class	Billing Unit	Per Application		Per IR Response	
		Balance	LRAMVA Rate Rider	Balance	LRAMVA Rate Rider
Residential	kWh	\$8,586.45	\$0.0001	\$9,245.78	\$0.0002
General Service <50	kWh	\$3,013.02	\$0.0002	\$2,967.47	\$0.0002
General Service >50	kW	\$4,016.12	\$0.0151	\$4,217.64	\$0.0159
Large Use	kW	\$25.89	\$0.0004	\$40.92	\$0.0006
Unmetered Scattered Load Connections	kWh				
Sentinel Lighting Connections	kW				
Street Lighting Connections	kW				
<b>Total</b>		<b>\$15,641.48</b>		<b>\$16,471.80</b>	

Note: Positive numbers are due from customer, negative are due to customer. Balances are inclusive of carrying charges.



### BOARD STAFF INTERROGATORY 3

**Ref: Entegrus\_2015TaxShareModel.xlsx and Entegrus\_DVADisposition.xlsx**

Board staff notes that Entegrus provides its RRR filings as an overall entity, as opposed to on a service area basis. After aggregating the data, Board staff has been unable to reconcile the billing determinants present in the Tax Sharing model and DVA disposition spreadsheets provided with Entegrus' RRR filing.

Please confirm and, if necessary, correct the following data:

- a) Total kWh for the GS < 50 kW, GS > 50 kW and USL classes.
- b) Number of connections for the Sentinel Lighting class.

Additionally, Board staff also notes that the customer and connection data for the SMP rate zone is not consistent between the separate Tax Sharing model and DVA disposition spreadsheets provided by Entegrus.

- c) Please confirm the correct customer and connection data for the SMP rate zone.

#### RESPONSE:

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- a) Please refer to Attachment F of the Application for a reconciliation of the kWh by rate class and by rate zone utilized in this Application to the kWh submitted in RRR 2.1.5. As discussed in the footnotes to Attachment F, there are two noted variances, which are described in further detail as follows:
  - i. There is an offsetting variance of 9,583 kWh between GS<50kW and USL in the Dutton rate zone. These kWh actually relate to USL connections, but Dutton currently does not have a USL rate class, so for billing purposes these kWh are billed GS<50 kW rates. For the purpose of calculating the rate riders, these kWh have been re-classed to reflect actual billing circumstances.
  - ii. The reporting variance of 6,334,408 kWh in the GS>50 kW rate class relates to a third party renewable generation customer that is ultimately delivered to Hydro One. Hydro One pays Entegrus the commodity and global adjustment (at the actual rate) on these kWh. Accordingly, these kWh do not contribute to variances and therefore these kWh have been excluded for the purpose of calculating the rate riders. This treatment is consistent with the manner in which Class A and Market Participant customers are handled as described on page 14 of the Application.
- b) Entegrus confirms that the 493 Sentinel Lighting Connections included in the Application are correct. The 366 connections originally reported in RRR 2.1.2 for December 31, 2013 inadvertently reflected the number of customer accounts with connections, rather than the total number of connections. Entegrus will apply to the Board to update the 2013 RRR submission to align with the Application.

- c) Entegrus confirms customer and connection data utilized in the tax sharing model is accurate and reconciles to the values contained in Attachment F of the Application. The USL, Sentinel Lighting and Street Lighting connections were inadvertently not updated in the DVA Disposition workbook (specifically the "4. SMP Calculation" tab.) These values have been updated to reflect the numbers contained in Attachment F of the Application. Entegrus notes this change does not affect any previous rate rider calculations. A live Excel copy of the model has been included with this submission and a copy is shown in Attachment C.

## VECC INTERROGATORY 1

**Reference 1: Attachment H, LRAMVA Third Party Report, CK, Page 3, Adjustments for results that do not affect revenues**

**Reference 2: Attachment I, LRAMVA Third Party Report, SMP, Page 3, Adjustments for results that do not affect revenues**

Preamble: The evidence in Attachments H and I states:

“For customer classes where the LDC charges for distribution based on the customer’s peak monthly demand (kW in the month), the system peak reductions are only partially relevant. For initiatives like lighting upgrades in businesses operating during normal business hours, the peak demand reductions are likely to be maintained throughout the year, including during the customer’s monthly peaks, and so may be used to estimate lost revenue. For other programs, in particular demand response programs, the customer’s monthly peak may not correspond to the system’s peak. Further, even if they are coincident, if a demand response event is called, and the customer’s monthly peak is shaved, it is likely that the customer’s second highest peak in the month is only slightly less than their highest peak. Thus, the impact on distribution revenues of the demand response program is likely to be minimal, and is assumed to have zero impact on lost load. Thus, no distribution revenues are estimated to be lost from large general service customers’ participation in demand response programs.”

- a) Please confirm lost revenues from CK’s and SMP’s Demand Response 3 Programs have not been included for recovery.
- b) Please provide the kW’s reported in the OPA’s Final CDM Report for each Demand Response Program offered in 2011, 2012 and 2013 separately for the CK and SMP Rate Zones.
- c) For CK’s and SMP’s Demand Response Programs offered in 2011, 2012 and 2013, please discuss what the kW reported in the OPA’s Final CDM Report represents.

## RESPONSE:

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- a) Customers participating in Demand Response 3 (“DR3”) programs are billed for distribution based on their peak monthly demand. As noted in the preamble above, demand response programs do not lead to lost revenues due to demand reductions, and accordingly, no such losses are claimed.

- b) The table below provides a breakdown of kW from DR programs for customers billed by kW in 2011-2013 by rate zone.

Year	Program	CK (kW)	SMP (kW)	Total
2011	DR3	649	173	822
2012	DR3	54	13	67
2013	DR3	54	14	68

The OPA provided results separately for the former Chatham-Kent Hydro (CK rate zone) and the former Middlesex Power Distribution Corporation (SMP rate zone) for 2011. Starting in 2012 after the Entegrus merger, the OPA commenced providing combined results for Entegrus (CK and SMP rate zones). The total kW have been allocated between the rate zones based on the load determinants for each year provided in the applicable Third Party Reports. Please note, the 2013 allocation values have been updated based on [Board Staff #2](#) interrogatory and included in Attachment A and B of this submission.

The DR3 program was the only DR program affecting customers that are billed based on monthly peak demand. The peaksaver PLUS program may be considered a DR program, but it is available only to customers billed for distribution based on kilowatt-hours. The peaksaver PLUS program did lead to a small energy savings resulting in lost revenues that have been included in this claim. Demand savings from the peaksaver PLUS program do not affect revenues.

- c) The kW reductions reported in the OPA report for DR programs represent the magnitude of peak demand reductions contracted for and that participating customers could be contractually obligated to realize in the event that a DR event is called. As noted above, demand savings from DR programs do not affect revenues.

## VECC INTERROGATORY 2

### Reference: Application Page 20

Preamble: SMP distribution rates were last rebased in 2006. As such, no prior CDM activity has been captured in base rates.

- a) Please provide a reference for this statement.
- b) Please discuss the impact of 2006 CDM programs in the load forecast that underpins 2006 base rates.
- c) Please discuss the timing of Entegrus' next rebasing application(s) by rate zone.

### RESPONSE:

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- a) Please see Section 2 of the Manager's Summary for background on the evolution of the Entegrus service territories.

Please also refer to EB-2013-0120, Manager's Summary, page 15, as well as, EB-2013-0120, Decision and Order, page 11.

- b) As noted above, the SMP rate zone was last rebased in 2006. The consumption billing determinants used to develop rates in the 2006 EDR were based on the average usage per customer/connection for the actual years 2002, 2003 and 2004, applied to the 2004 customers/connections. Accordingly, the 2006 CDM programs did not impact the billing determinants used in the 2006 EDR.
- c) Entegrus is currently in the process of preparing a 2016 Cost of Service Application for rates effective May 1, 2016, to be filed with the Board in August 2015. The Cost of Service Application will encompass all four rate zones, for which Entegrus will seek rate harmonization. For more information on rate harmonization, please see [Board Staff #1](#) interrogatory.

### VECC INTERROGATORY 3

**Reference: Application Page 21**

Preamble: Entegrus indicates that for initiatives that apply to more than one rate class, Entegrus staff estimated the split by rate class, drawing on participant-specific information where available.

- a) Please confirm the initiatives that apply to more than one rate class.
- b) For each initiative, please explain further how Entegrus calculated the split by rate class.

**RESPONSE:**

- a) The table below details the programs that had results that were allocated to more than one rate class. Entegrus notes that these initiatives all relate to the Electricity Retrofit programs.

Program	Years	Reference
Electricity Retrofit Incentive Program	2008 and 2010	Attachment J of Application LRAM Third Party Report – SMP Table 1
Efficiency: Equipment Replacement (Retrofit program) – Business and Industrial	2011	Attachment A of IR Responses LRAMVA Third Party Report – CK Table B-1 (percentage) and B-4 (impact)
Electricity Retrofit Incentive Program	2011	Attachment A of IR Responses LRAMVA Third Party Report – CK Table B-1 (percentage) and B-4 (impact)
Efficiency: Equipment Replacement (Retrofit program) – Business and Industrial	2011	Attachment B of IR Responses LRAMVA Third Party Report – SMP Table B-1 (percentage) and B-4 (impact)
Electricity Retrofit Incentive Program	2011	Attachment B of IR Responses LRAMVA Third Party Report – SMP Table B-1 (percentage) and B-4 (impact)
Efficiency: Equipment Replacement (Retrofit program) – Business	2012	Attachment A of IR Responses LRAMVA Third Party Report – CK Table B-2 (percentage) and B-5 (impact)
Efficiency: Equipment Replacement (Retrofit program) – Business	2012	Attachment B of IR Responses LRAMVA Third Party Report – SMP Table B-2 (percentage) and B-5 (impact)
Efficiency: Equipment Replacement (Retrofit program) – Business	2013	Attachment A of IR Responses LRAMVA Third Party Report – CK, Table B-3 (percentage) and B-6 (impact)

<b>Program</b>	<b>Years</b>	<b>Reference</b>
Efficiency: Equipment Replacement (Retrofit program) – Business	2013	Attachment B of IR Responses LRAMVA Third Party Report – SMP Table B-3 (percentage) and B-6 (impact)

- b) To facilitate the rate split calculation for the Retrofit Program, Entegrus used the OPA's 2013 Final Retrofit Project List to identify the rate class of the participant associated with each of the completed projects. The electricity savings were then summarized by rate class and subsequently divided by the total savings from the Retrofit program in 2013 to establish the appropriate allocations.

For all other initiatives, including Process & System Upgrades and the Energy Manager program, a rate class split calculation was not required as the participants in the program were all from the same rate class.

## **VECC INTERROGATORY 4**

### **Reference: Application Page 22**

Preamble: Entegrus seeks to recover lost revenue related to 2006-2010 CDM programs with persistence in 2013.

- a) Please confirm estimated savings persistent in 2014 for these CDM programs has been excluded from the LRAM claim.

### **RESPONSE:**

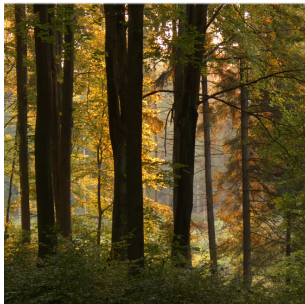
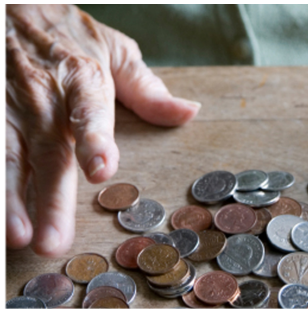
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- a) Entegrus confirms that the estimated savings persisting in 2014 for 2006-2010 CDM programs are not included in the current Application's LRAM claim.



Attachment A  
LRAMVA Third Party Report  
CK Rate Zone  
Version 3

## Entegrus (Chatham-Kent) 2013 LRAMVA





# Entegrus (Chatham-Kent) lost revenue related to Conservation and Demand Management

*2013*



This document was prepared for Entegrus Powerlines by IndEco Strategic Consulting Inc.

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IndEco report B3856 (CK 2013)

9 January 2015

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## Introduction

The Lost Revenue Adjustment Mechanism (LRAM) was developed to remove the disincentive to electricity local distribution companies (LDCs) from conservation and demand management (CDM) programs. CDM programs are designed to provide energy savings and peak demand reductions for the customers of LDCs, which would directly impact the LDC's revenue. The LRAM allows LDCs to be compensated for any lost revenue that may occur due to CDM programs in the LDC's service territory.

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 may have included in the LDC's load forecast.<sup>1</sup>

Entegrus Powerlines is an amalgamation of Middlesex Power Distribution Corporation (MPDC) with Chatham-Kent Hydro that came into effect in 2012. Entegrus (Chatham-Kent) and Entegrus (MPDC) will be dealt with separately for LRAMVA purposes, as they each have different rates and rate classes.

Entegrus has contracted with the Ontario Power Authority (OPA) 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 2013 programs and persisting losses from 2011 and 2012 programs as part of their 2015 IRM applications.

Entegrus submitted a claim for lost revenues from 2011 and 2012 programs in its 2014 Incentive Regulation Mechanism (IRM) application. This report involves a determination of the variance account balance for the following revenue losses:

- 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.

The carrying charges on the above lost revenues through April 2015 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 2013, Entegrus (Chatham-Kent) offered provincial programs that were offered in partnership with the Ontario Power Authority (OPA). Entegrus (Chatham-Kent) did not offer custom programs beyond the OPA programs.

### *OPA evaluation results*

The OPA 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 their individual performance where possible, or through an allocation process.

The OPA 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 OPA 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 OPA 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, Entegrus staff estimated the split by rate class, drawing on participant-specific information where available.

### *Adjustments for results that do not affect revenues*

As previously mentioned, the OPA reports both energy savings and reductions in [system] peak 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 OPA-reported energy savings are directly relevant.

For customer classes where the LDC charges for distribution based on the customer's peak monthly demand (kW in the month), the system peak reductions are only partially relevant. For initiatives like lighting upgrades in businesses operating during normal business hours, the peak demand reductions are likely to be maintained throughout the year, including during the customer's monthly peaks, and so may be used to estimate lost revenue. For other programs, in particular demand response programs, the customer's monthly peak may not correspond to the system's peak. Further, even if they are coincident, if a demand response event is called, and the customer's monthly peak is shaved, it is likely that the customer's second highest peak in the month is only slightly less than their highest peak. Thus, the impact on distribution revenues of the demand response program is likely to be minimal, and is assumed to have zero impact on lost load.

Thus, no distribution revenues are estimated to be lost from large general service customers' participation in demand response programs.

### *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 OPA energy savings and peak demand reductions, allocated by rate class, and adjusted for differences between system peak reductions and customer monthly peak reduction. Finally the difference is calculated between the overall estimated

impact on loads and the load reductions 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 Entegrus (Chatham-Kent), 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).

### *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>2</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 variance account opening balance. Because the OPA 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 January, and 12/12 of the annual results to December.

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

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

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<sup>2</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 Entegrus (Chatham-Kent).

### *CDM results*

#### *OPA evaluation results*

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

- The verified final 2011, 2012, and 2013 results for Entegrus as a whole are shown in Table 1
- The adjustments to verified final 2011 and 2012 results for Entegrus as a whole are shown in Table 2.<sup>3</sup>

The gross results were provided by the OPA, 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 estimated 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. The OPA has provided LDCs with persistence data for all results and adjustments except for 2011 results. The persistence of 2011 results were estimated based on the contribution of 2011 results to 2014 targets reported by the OPA with the 2011 final results. Some 2011 program results were seen to not persist fully through 2014. For 2011 program results that persist into future years and do not persist fully through 2014, the results or adjustments are assumed to persist until the end of 2013. Any drop in persistence is assumed to occur in 2014.

The OPA provided 2011 results for Chatham-Kent Hydro and Middlesex Power Distribution Corporation separately, but provided 2012 and 2013 results and 2011 and 2012 adjustments for Entegrus as a whole. As the subsets of Entegrus' service territory that were previously Chatham-Kent Hydro and Middlesex Power Distribution Corporation have different rate classes and rates, they must be handled as separate rate zones for lost revenue purposes. The percentages of load in each rate class for each year were used to allocate the results and adjustments between the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation. The percentage allocation of load (in kW or kWh, depending on the billing

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<sup>3</sup> *Entegrus OPA Annual CDM Report 2013 - Final Verified Results*. Ontario Power Authority. August 29, 2013.

units of each rate class) by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation is shown in Tables A-6 (2012) and A-7 (2013) in Appendix A. Where rate classes match, the totals do not always add up to 100%, as Entegrus also includes two very small additional amalgamated previous service territories of Dutton and Newbury. The populations in both Dutton and Newbury are so small that it was assumed that they did not significantly contribute to CDM results.

### *Allocating results to rate classes*

Entegrus staff 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 Entegrus (Chatham-Kent) has no program results.

Entegrus (Chatham-Kent) 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 unit) for Entegrus (Chatham-Kent) are:

- Residential (kWh)
- GS <50 kW(kWh)
- GS 50 to 999 kW (kW)
- GS 1,000 TO 4,999 kW (kW)
- Intermediate with Self Generation (kW)
- Unmetered Scattered Load (kWh)
- Standby Power (kW)
- Sentinel Lighting (kW)
- Street Lighting (kW)
- Microfit Generator (N/A).

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 adjustments. Table B-3 in Appendix B shows the percentage allocation by rate class for 2013 results.

### *Adjustments for results that do not affect revenues*

The only adjustments relate to rate classes that are billed by customer peak kilowatt in the month. The only initiative that is affected is the Demand Response 3 program, for which no lost revenues are attributed to the reported demand reductions.

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

Entegrus (Chatham-Kent)'s last cost of service application was filed in 2010. The load forecast associated with that application did not account for load losses from 2011 – 2014 CDM programs.

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

Multiplying the energy savings or demand reduction reported for Entegrus (Chatham-Kent) 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, with adjustments for results that do not affect revenue provides the overall impact of CDM on load by rate class.

Table B-4 in Appendix B shows the overall impact of CDM on load, by rate class for 2011.

Table B-5 in Appendix B shows the overall impact of CDM on load, by rate class for 2012.

Table B-6 in Appendix B shows the overall impact of CDM on load, by rate class for 2013.

### *Distribution rates*

The distribution rates that impact lost revenue for each rate class for Entegrus (Chatham-Kent) 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.

### *Lost revenues*

The lost revenues for each year by rate class for Entegrus (Chatham-Kent) calculated from final CDM program results are shown in Table C-2 in Appendix C. The lost revenue for 2011 is based on the CDM program results and adjustments to the 2011 results allocated by rate class and multiplied by the 2011 rate for that rate class. The lost revenue for 2012 is based on the 2012 CDM program results and adjustments to the 2012 results plus the persistence of the 2011 program results in 2012 allocated by rate class and multiplied by the 2012 rate for that rate class. The lost revenue for 2013 is based on the CDM program results plus the persistence of the 2011 and 2012 program results in 2013 allocated by rate class and multiplied by the 2013 rate for that rate class.

The lost revenue for 2011-2013 is based on final verified results provided by the OPA.

In Entegrus' 2014 IRM process (EB-2013-0120), disposition of the 2011 and 2012 lost revenue amounts in Account 1568 was approved. The breakdown of these amounts by rate class is also shown in Table C-2.

The disposed values vary from the 2011 and 2012 lost revenue calculated for this report due to retroactive adjustments made by the OPA to the results of these previous years that were provided with the 2013 final results.

### *Carrying charges*

The monthly carrying charges by rate class on Entegrus (Chatham-Kent)'s lost revenue variance are shown in Table C-3 in Appendix C. The carrying charges are reported monthly, from the time the lost revenues resulted, through to April 30, 2015.

In Entegrus' 2014 IRM process (EB-2013-0120), disposition of the carrying charges to April 30, 2014 on the 2011 and 2012 lost revenue amounts in Account 1568 was approved. The breakdown of these amounts by rate class is also shown in Table C-3. The disposed values vary from the carrying charges on the 2011 and 2012 lost revenue calculated for this report due to retroactive adjustments made by the OPA to the results of these previous years that were provided with the 2013 final results.

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## Conclusions

The LRAMVA balance at the end of December 2013 for Entegrus (Chatham-Kent) that includes results from 2013 CDM programs and adjustments to 2011 and 2012 results is \$104,710.75. The total carrying charges on this LRAMVA balance accumulated to April 30, 2015 are \$2,772.71. These balances are attributable to individual rate classes according to the following table:

Rate class	LRAMVA	Carrying charges	Total
Residential	\$21,022.75	\$554.54	\$21,577.30
GS < 50 kW	\$47,885.63	\$1,272.14	\$49,157.77
GS 50 to 999 kW	\$22,898.86	\$606.16	\$23,505.03
GS 1,000 TO 4,999 kW	\$8,765.80	\$230.89	\$8,996.69
Intermediate with Self Generation	\$4,137.70	\$108.98	\$4,246.67
<b>Total</b>	<b>\$104,710.75</b>	<b>\$2,772.71</b>	<b>\$107,483.46</b>

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



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## Appendix A.CDM results reported by the OPA

Table 1: ENTEGRUS Initiative and Program Level Net Savings by Year (Scenario 1)

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 Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh)		
																2014	2014
Consumer Program																	
Appliance Retirement	Appliances	421	301	182		24	18	12		177,892	119,701	76,967		54	1,224,402		
Appliance Exchange	Appliances	32	28	35		3	4	7		3,098	7,322	12,930		12	58,061		
HVAC Incentives	Equipment	1,040	868	810		318	182	160		569,794	303,127	264,990		659	3,718,537		
Conservation Instant Coupon Booklet	Items	3,719	223	2,507		9	2	4		136,065	10,104	55,697		14	685,963		
Bi-Annual Retailer Event	Items	6,880	7,666	6,827		12	11	9		212,360	193,530	124,145		31	1,678,322		
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0		
Residential Demand Response	Devices	232	0	765		130	0	341		336	0	603		0	940		
Residential Demand Response (IHD)	Devices	0	0	765		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						495	216	533		1,099,545	633,784	535,332		770	7,366,225		
Business Program																	
Retrofit	Projects	43	82	86		112	711	458		520,887	4,149,424	2,612,541		1,231	19,568,953		
Direct Install Lighting	Projects	53	253	117		58	201	134		144,062	782,496	466,827		379	3,806,878		
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0		
New Construction	Buildings	0	0	0		0	0	0		0	0	0		0	0		
Energy Audit	Audits	0	0	0		0	0	0		0	0	0		0	0		
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	1	1	1		68	68	69		2,636	984	917		0	4,536		
Business Program Total						237	980	661		667,585	4,932,904	3,080,285		1,609	23,380,367		
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	2	2		0	141	101		0	246,600	176,580		243	1,092,960		
Retrofit	Projects	4	0	0		10	0	0		70,196	0	0		10	280,785		
Demand Response 3	Facilities	2	0	1		754	0	0		44,275	0	0		0	44,275		
Industrial Program Total						765	141	101		114,471	246,600	176,580		253	1,418,020		
Home Assistance Program																	
Home Assistance Program	Homes	0	163	1,137		0	18	58		0	228,459	773,555		74	2,211,409		
Home Assistance Program Total						0	18	58		0	228,459	773,555		74	2,211,409		
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	18	0	0		111	0	0		707,984	0	0		111	2,831,935		
High Performance New Construction	Projects	0	0	0		1	1	0		2,786	791	0		1	13,519		
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						112	1	0		710,770	791	0		113	2,845,454		
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		
Other Total						0	0	0		0	0	0		0	0		
Adjustments to 2011 Verified Results						-26				0	-27				-14,890		
Adjustments to 2012 Verified Results						21					21				532,264		
Energy Efficiency Total						657	1,288	944		2,545,124	6,041,553	4,564,232		2,820	37,171,724		
Demand Response Total (Scenario 1)						952	68	409		47,247	984	1,520		0	49,751		
Adjustments to Previous Years' Verified Results Total						0	-26	21		0	-3,240	177,421		-6	517,374		
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						1,609	1,329	1,374		2,592,371	6,039,297	4,743,174		2,814	37,738,850		
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:		12,120	46,530,000
The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.														% of Full OEB Target Achieved to Date (Scenario 1):		23.2%	81.1%

Table 2: Adjustments to ENTEGRUS 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)			
		2011*	2012*	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program													
Appliance Retirement	Appliances	0	0			0	0			0	0		
Appliance Exchange	Appliances	0	0			0	0			0	0		
HVAC Incentives	Equipment	-145	20			-39	4			-69,288	7,114		
Conservation Instant Coupon Booklet	Items	59	0			0	0			1,992	0		
Bi-Annual Retailer Event	Items	591	0			1	0			15,778	0		
Retailer Co-op	Items	0	0			0	0			0	0		
Residential Demand Response	Devices	0	0			0	0			0	0		
Residential Demand Response (IHD)	Devices	0	0			0	0			0	0		
Residential New Construction	Homes	0	0			0	0			0	0		
Consumer Program Total						-38	4			-51,519	7,114		
Business Program													
Retrofit	Projects	4	8			10	14			41,693	159,424		
Direct Install Lighting	Projects	2	4			2	3			6,585	10,883		
Building Commissioning	Buildings	0	0			0	0			0	0		
New Construction	Buildings	0	0			0	0			0	0		
Energy Audit	Audits	0	0			0	0			0	0		
Small Commercial Demand Response	Devices	0	0			0	0			0	0		
Small Commercial Demand Response (IHD)	Devices	0	0			0	0			0	0		
Demand Response 3	Facilities	0	0			0	0			0	0		
Business Program Total						12	17			48,278	170,307		
Industrial Program													
Process & System Upgrades	Projects	0	0			0	0			0	0		
Monitoring & Targeting	Projects	0	0			0	0			0	0		
Energy Manager	Projects	0	0			0	0			0	0		
Retrofit	Projects	0	0			0	0			0	0		
Demand Response 3	Facilities	0	0			0	0			0	0		
Industrial Program Total						0	0			0	0		
Home Assistance Program													
Home Assistance Program	Homes	0	0			0	0			0	0		
Home Assistance Program Total						0	0			0	0		
Aboriginal Program													
Home Assistance Program	Homes	0	0			0	0			0	0		
Direct Install Lighting	Projects	0	0			0	0			0	0		
Aboriginal Program Total						0	0			0	0		
Pre-2011 Programs completed in 2011													
Electricity Retrofit Incentive Program	Projects	0	0			0	0			0	0		
High Performance New Construction	Projects	0	0			0	0			0	0		
Toronto Comprehensive	Projects	0	0			0	0			0	0		
Multifamily Energy Efficiency Rebates	Projects	0	0			0	0			0	0		
LDC Custom Programs	Projects	0	0			0	0			0	0		
Pre-2011 Programs completed in 2011 Total						0	0			0	0		
Other													
Program Enabled Savings	Projects	0	0			0	0			0	0		
Time-of-Use Savings	Homes	0	0			0	0			0	0		
Other Total						0	0			0	0		
Adjustments to 2011 Verified Results						-26				-3,240			
Adjustments to 2012 Verified Results							21				177,421		
Total Adjustments to Previous Years' Verified Results						-26	21			-3,240	177,421		

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).

The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.

Adjustments to previous years' results shown in this table will not align to adjustments shown in Table 1 as the information presented above does not consider persistence of savings

Table A-1: Estimated persistence of 2011 results into future years

		Persistence of 2011 savings					
		2012		2013		2014	
#	Initiative	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)
Consumer Program							
1	Appliance Retirement	18	128,583	18	128,583	17	128,380
2	Appliance Exchange	2	2,256	2	2,256	0	593
3	HVAC Incentives	269	479,102	269	479,102	269	479,102
4	Conservation Instant Coupon Booklet	7	107,884	7	107,884	7	107,884
5	Bi-Annual Retailer Event	10	169,465	10	169,465	10	169,465
6	Retailer Co-Op						
7	Residential Demand Response						
8	Residential Demand Response (IHD)						
9	Residential New Construction						
Business Program							
10	Retrofit	82	440,071	82	440,071	82	440,071
11	Direct Install Lighting	45	108,271	45	108,271	39	92,719
12	Building Commissioning						
13	New Construction						
14	Energy Audit						
15	Small Commercial Demand Response (switch/pstat)						
16	Small Commercial Demand Response (IHD)						
17	Demand Response 3						
Industrial Program							
18	Process & System Upgrades						
19	Monitoring & Targeting						
20	Energy Manager						
21	Retrofit	10	70,196	10	70,196	10	70,196
22	Demand Response 3						
Home Assistance Program							
23	Home Assistance Program						
Pre-2011 Programs completed in 2011							
24	Electricity Retrofit Incentive Program	92	595,574	92	595,574	92	595,574
25	High Performance New Construction	1	2,786	1	2,786	1	2,786

Note: Persistence is based on net incremental and program-to-date contributions to 2014 targets reported by the OPA. Some program results do not persist into future years and others persist equally into future years. For programs that have persistence into future years and persistence is not equal to the saving in the first year, the savings are assumed to persist until the end of 2013 and any drop in persistence is assumed to occur in 2014.

Table A-2: Persistence of 2012 results into future years

Persistence of 2012 savings					
		2013	2014		
#	Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
Consumer Program					
1	Appliance Retirement	18	119,701	18	119,701
2	Appliance Exchange	4	7,322	4	7,322
3	HVAC Incentives	182	303,127	182	303,127
4	Conservation Instant Coupon Booklet	2	10,104	2	10,104
5	Bi-Annual Retailer Event	11	193,530	11	193,530
6	Retailer Co-Op				
7	Residential Demand Response (switch/pstat)				
8	Residential Demand Response (IHD)				
9	Residential New Construction				
Business Program					
10	Retrofit	704	4,125,352	676	4,032,561
11	Direct Install Lighting	201	782,496	196	761,672
12	Building Commissioning				
13	New Construction				
14	Energy Audit				
15	Small Commercial Demand Response (switch/pstat)				
16	Small Commercial Demand Response (IHD)				
17	Demand Response 3				
Industrial Program					
18	Process & System Upgrades				
19	Monitoring & Targeting				
20	Energy Manager	141	246,600	141	246,600
21	Retrofit				
22	Demand Response 3				
Home Assistance Program					
23	Home Assistance Program	17	217,283	17	217,283
Pre-2011 Programs completed in 2011					
24	Electricity Retrofit Incentive Program				
25	High Performance New Construction	1	791	1	791

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

**Table A-3: Persistence of 2013 results through 2014**

Persistence of 2013 savings		
2014		
# Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>		
1 Appliance Retirement	12	76,967
2 Appliance Exchange	7	12,930
3 HVAC Incentives	160	264,990
4 Conservation Instant Coupon Booklet	4	55,697
5 Bi-Annual Retailer Event	9	124,145
6 Retailer Co-Op		
7 Residential Demand Response (switch/pstat)		
8 Residential Demand Response (IHD)		
9 Residential New Construction		
<b>Business Program</b>		
10 Retrofit	443	2,565,528
11 Direct Install Lighting	134	466,827
12 Building Commissioning		
13 New Construction		
14 Energy Audit		
15 Small Commercial Demand Response (switch/pstat)		
16 Small Commercial Demand Response (IHD)		
17 Demand Response 3		
<b>Industrial Program</b>		
18 Process & System Upgrades		
19 Monitoring & Targeting		
20 Energy Manager	101	176,580
21 Retrofit		
22 Demand Response 3		
<b>Home Assistance Program</b>		
23 Home Assistance Program	57	752,478

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

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

Persistence of 2011 adjustments						
# Initiative	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>						
1 Appliance Retirement						
2 Appliance Exchange						
3 HVAC Incentives	-39	-69,288	-39	-69,288	-39	-69,288
4 Conservation Instant Coupon Booklet	0	1,992	0	1,992	0	1,992
5 Bi-Annual Retailer Event	1	15,778	1	15,778	1	15,778
6 Retailer Co-Op						
7 Residential Demand Response						
8 Residential Demand Response (IHD)						
9 Residential New Construction						
<b>Business Program</b>						
10 Retrofit	10	41,693	10	41,693	10	41,693
11 Direct Install Lighting	2	6,585	2	6,585	1	4,657
12 Building Commissioning						
13 New Construction						
14 Energy Audit						
15 Small Commercial Demand Response (switch/pstat)						
16 Small Commercial Demand Response (IHD)						
17 Demand Response 3						
<b>Industrial Program</b>						
18 Process & System Upgrades						
19 Monitoring & Targeting						
20 Energy Manager						
21 Retrofit						
22 Demand Response 3						
<b>Home Assistance Program</b>						
23 Home Assistance Program						
<b>Pre-2011 Programs completed in 2011</b>						
24 Electricity Retrofit Incentive Program						
25 High Performance New Construction						

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

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

		Persistence of 2012 adjustments			
		2013		2014	
#	Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>					
1	Appliance Retirement				
2	Appliance Exchange				
3	HVAC Incentives	4	7,114	4	7,114
4	Conservation Instant Coupon Booklet				
5	Bi-Annual Retailer Event				
6	Retailer Co-Op				
7	Residential Demand Response				
8	Residential Demand Response (IHD)				
9	Residential New Construction				
<b>Business Program</b>					
10	Retrofit	14	159,424	14	159,424
11	Direct Install Lighting	3	10,883	3	10,883
12	Building Commissioning				
13	New Construction				
14	Energy Audit				
15	Small Commercial Demand Response (switch/pstat)				
16	Small Commercial Demand Response (IHD)				
17	Demand Response 3				
<b>Industrial Program</b>					
18	Process & System Upgrades				
19	Monitoring & Targeting				
20	Energy Manager				
21	Retrofit				
22	Demand Response 3				
<b>Home Assistance Program</b>					
23	Home Assistance Program				

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



Table A-6: Percentage allocation of load by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation for 2012

Chatham-Kent Hydro										
	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Street Lighting	Microfit Generator
Allocation	79%	82%	80%	80%	100%	75%	100%	89%	80%	
Middlesex Power Distribution Corporation										
	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use		Unmetered Scattered Load		Sentinel Lighting	Street Lighting	MicroFIT Generator
Allocation	19%	14%	20%	100%		25%		11%	18%	

Note: The percentage allocation for each rate class by previous service service territory is based on the proportion of Entegrus' total loss-adjusted billed kWh or billed kW.

Table A-7: Percentage allocation of load by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation for 2013

Chatham-Kent Hydro										
	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Street Lighting	Microfit Generator
Allocation	77%	79%	79%	79%	100%	74%	100%	89%	79%	
Middlesex Power Distribution Corporation										
	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use		Unmetered Scattered Load		Sentinel Lighting	Street Lighting	MicroFIT Generator
Allocation	21%	17%	21%	100%		26%		11%	19%	

Note: The percentage allocation for each rate class by previous service service territory is based on the proportion of Entegrus' total loss-adjusted billed kWh or billed kW.

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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

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
<b>Consumer Program</b>									
1	Appliance Retirement	100%							
2	Appliance Exchange	100%							
3	HVAC Incentives	100%							
4	Conservation Instant Coupon Booklet	100%							
5	Bi-Annual Retailer Event	100%							
6	Retailer Co-op	100%							
7	Residential Demand Response	100%							
8	Residential New Construction	100%							
<b>Business Program</b>									
9	Efficiency: Equipment Replacement		51%	49%					
10	Direct Install Lighting		100%						
11	Existing Building Commissioning Incentive								
12	New Construction and Major Renovation Incentive								
13	Energy Audit								
14	Commercial Demand Response (part of the Residential program schedule)								
15	Demand Response 3 (part of the Industrial program schedule)								
<b>Industrial Program</b>									
16	Process & System Upgrades								
17	Monitoring & Targeting								
18	Energy Manager								
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)			93%	7%				
20	Demand Response 3								
<b>Home Assistance Program</b>									
21	Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>									
22	Electricity Retrofit Incentive Program		29%	71%					
23	High Performance New Construction			100%					

Source: Entegrus

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

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
<b>Consumer Program</b>									
1	Appliance Retirement	100%							
2	Appliance Exchange	100%							
3	HVAC Incentives	100%							
4	Conservation Instant Coupon Booklet	100%							
5	Bi-Annual Retailer Event	100%							
6	Retailer Co-Op	100%							
7	Residential Demand Response (switch/pstat)	100%							
8	Residential Demand Response (IHD)	100%							
9	Residential New Construction	100%							
<b>Business Program</b>									
10	Retrofit		56%	44%					
11	Direct Install Lighting		100%						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager				100%				
21	Retrofit		1%	8%	75%	16%			
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction								
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								

Source: Entegrus

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

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
<b>Consumer Program</b>									
1	Appliance Retirement	100%							
2	Appliance Exchange	100%							
3	HVAC Incentives	100%							
4	Conservation Instant Coupon Booklet	100%							
5	Bi-Annual Retailer Event	100%							
6	Retailer Co-Op	100%							
7	Residential Demand Response (switch/pstat)	100%							
8	Residential Demand Response (IHD)	100%							
9	Residential New Construction	100%							
<b>Business Program</b>									
10	Retrofit		33.0%	54.0%	13.0%	0.3%			
11	Direct Install Lighting		100%						
12	Building Commissioning								
13	New Construction		100%						
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)		100%						
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades					100%			
19	Monitoring & Targeting								
20	Energy Manager					100%			
21	Retrofit		50%	50%					
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction								
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								
Source: Entegrus									

Table B-4: Impact of CDM on load, by rate class for 2011

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
	Units	kWh	kWh	kW	kW	kW	kWh	kW	kW
<b>Consumer Program</b>									
1	Appliance Retirement	128,583							
2	Appliance Exchange	2,256							
3	HVAC Incentives	424,530							
4	Conservation Instant Coupon Booklet	109,453							
5	Bi-Annual Retailer Event	181,892							
6	Retailer Co-op								
7	Residential Demand Response	49							
8	Residential New Construction								
<b>Business Program</b>									
9	Efficiency: Equipment Replacement		241,910	528					
10	Direct Install Lighting		113,682						
11	Existing Building Commissioning Incentive								
12	New Construction and Major Renovation Incentive								
13	Energy Audit								
14	Commercial Demand Response (part of the Residential program schedule)								
15	Demand Response 3 (part of the Industrial program schedule)								
<b>Industrial Program</b>									
16	Process & System Upgrades								
17	Monitoring & Targeting								
18	Energy Manager								
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)			112	8				
20	Demand Response 3								
<b>Home Assistance Program</b>									
21	Home Assistance Program								
<b>Pre-2011 Programs completed in 2011</b>									
22	Electricity Retrofit Incentive Program		172,716	784					
23	High Performance New Construction			12					
<b>Total</b>		<b>846,762</b>	<b>528,309</b>	<b>1,435</b>	<b>8</b>				

Note: impact on load is calculated from net incremental peak demand or net incremental savings on Table 1 with adjustments contained in Table 2 from the OPA (Appendix A), depending on how that rate class is billed for distribution service, and the allocation of savings by rate class in Table B-1. The OPA provided 2011 results for Chatham-Kent, but the 2011 adjustments were provided for Entegrus as a whole. As a result, the 2011 adjustments have been allocated to the Chatham-Kent rate zone based on the allocations in Table B-6. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.

Table B-5: Impact of CDM on load, by rate class for 2012

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
	Units	kWh	kWh	kW	kW	kW	kWh	kW	kW
<b>Consumer Program</b>									
1	Appliance Retirement	94,278							
2	Appliance Exchange	5,767							
3	HVAC Incentives	244,349							
4	Conservation Instant Coupon Booklet	7,958							
5	Bi-Annual Retailer Event	152,426							
6	Retailer Co-Op								
7	Residential Demand Response								
8	Residential Demand Response (IHD)								
9	Residential New Construction								
<b>Business Program</b>									
10	Retrofit		1,982,930	3,055					
11	Direct Install Lighting		651,987						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager				1,353				
21	Retrofit								
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	179,936							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction								
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								
<b>Total</b>		<b>684,714</b>	<b>2,634,916</b>	<b>3,055</b>	<b>1,353</b>				

Note: impact on load is calculated from net incremental peak demand or net incremental savings in Table 1 with adjustments contained in Table 2 from the OPA (Appendix A) plus persistence of 2011 results and adjustments into 2012 in Tables A-1 and A-4. The demand or savings results are used, depending on how that rate class is billed for distribution service, and the Entegrus rate class load totals are allocated by rate zone based on the percentages in Table A-6 and by rate class based on the percentages in Table B-2. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.



Table B-6: Impact of CDM on load, by rate class for 2013

#	Initiative	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting
	Units	kWh	kWh	kW	kW	kW	kWh	kW	kW
<b>Consumer Program</b>									
1	Appliance Retirement	59,245							
2	Appliance Exchange	9,953							
3	HVAC Incentives	203,973							
4	Conservation Instant Coupon Booklet	42,872							
5	Bi-Annual Retailer Event	95,560							
6	Retailer Co-Op								
7	Residential Demand Response	464							
8	Residential Demand Response (IHD)								
9	Residential New Construction								
<b>Business Program</b>									
10	Retrofit		683,301	2,341	563	16			
11	Direct Install Lighting		369,991						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager					1,215			
21	Retrofit								
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	595,436							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction								
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								
<b>Total</b>		<b>1,007,503</b>	<b>1,053,293</b>	<b>2,341</b>	<b>563</b>	<b>1,231</b>			

Note: impact on load is calculated from net incremental peak demand or net incremental savings in Table 1 from the OPA (Appendix A) plus persistence of 2011 and 2012 results and adjustments into 2013 in Tables A-1, A-2, A-4, and A-5. The demand or savings results are used, depending on how that rate class is billed for distribution service, and the Entegrus rate class load totals are allocated by rate zone based on the percentages in Table A-7 and by rate class based on the percentages in Table B-3. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.

---

## 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	0.0083	0.0081	0.0083	0.0085
GS < 50 kW	kWh	0.0111	0.0110	0.0112	0.0114
GS 50 to 999 kW	kW	2.8793	3.2030	3.3407	3.3908
GS 1,000 TO 4,999 kW	kW	5.3982	4.7247	4.5439	4.6120
Intermediate with Self Generation	kW	2.9531	3.2375	3.3599	3.4073
Unmetered Scattered Load	kWh	0.0006	0.0006	0.0007	0.0006
Standby Power	kW				
Sentinel Lighting	kW	0.3886	0.3267	0.3829	0.4161

Notes: Distribution rates are from OEB approved rate schedules averaged from the rate year to the calendar year. Only the Distribution Volumetric Rate and the Rate Rider for Application of Tax Change are used.

Table C-2: Lost revenues for each year by rate class

Year	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Total
2011	\$7,028.13	\$5,864.23	\$4,132.79	\$45.34					\$17,070.49
2012	\$12,404.56	\$34,795.48	\$14,376.78	\$6,431.55					\$68,008.37
2013	\$21,000.06	\$47,100.93	\$22,711.30	\$8,745.90	\$4,137.70				\$103,695.89
Amount disposed	-\$19,410.00	-\$39,875.00	-\$18,322.00	-\$6,457.00					-\$84,064.00
<b>Total</b>	<b>\$21,022.75</b>	<b>\$47,885.63</b>	<b>\$22,898.86</b>	<b>\$8,765.80</b>	<b>\$4,137.70</b>				<b>\$104,710.75</b>

Note: Values are the product of the actual lost loads (Tables B-4, B-5, and B-6), and the rates (Table C-1) for each rate class. Amount disposed is from EB-2013-0120 dated 2014-04-23.

Table C-3: Monthly carrying charges by rate class

Month	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Total
Jan-11									
Feb-11	\$0.72	\$0.60	\$0.42	\$0.00					\$1.74
Mar-11	\$1.43	\$1.20	\$0.84	\$0.01					\$3.49
Apr-11	\$2.15	\$1.80	\$1.27	\$0.01					\$5.23
<b>Total for Rate year 2010</b>	<b>\$4.30</b>	<b>\$3.59</b>	<b>\$2.53</b>	<b>\$0.03</b>					<b>\$10.46</b>
May-11	\$2.87	\$2.39	\$1.69	\$0.02					\$6.97
Jun-11	\$3.59	\$2.99	\$2.11	\$0.02					\$8.71
Jul-11	\$4.30	\$3.59	\$2.53	\$0.03					\$10.46
Aug-11	\$5.02	\$4.19	\$2.95	\$0.03					\$12.20
Sep-11	\$5.74	\$4.79	\$3.38	\$0.04					\$13.94
Oct-11	\$6.46	\$5.39	\$3.80	\$0.04					\$15.68
Nov-11	\$7.17	\$5.99	\$4.22	\$0.05					\$17.43
Dec-11	\$7.89	\$6.59	\$4.64	\$0.05					\$19.17
Jan-12	\$8.61	\$7.18	\$5.06	\$0.06					\$20.91
Feb-12	\$9.88	\$10.74	\$6.53	\$0.71					\$27.85
Mar-12	\$11.14	\$14.29	\$8.00	\$1.37					\$34.80
Apr-12	\$12.41	\$17.84	\$9.47	\$2.03					\$41.74
<b>Total for Rate year 2011</b>	<b>\$89.39</b>	<b>\$89.56</b>	<b>\$56.90</b>	<b>\$4.47</b>					<b>\$240.31</b>
May-12	\$13.67	\$21.39	\$10.93	\$2.68					\$48.68
Jun-12	\$14.94	\$24.94	\$12.40	\$3.34					\$55.62
Jul-12	\$16.21	\$28.50	\$13.87	\$3.99					\$62.57
Aug-12	\$17.47	\$32.05	\$15.34	\$4.65					\$69.51
Sep-12	\$18.74	\$35.60	\$16.80	\$5.31					\$76.45
Oct-12	\$20.01	\$39.15	\$18.27	\$5.96					\$83.39
Nov-12	\$21.27	\$42.70	\$19.74	\$6.62					\$90.34
Dec-12	\$22.54	\$46.26	\$21.21	\$7.28					\$97.28
Jan-13	\$23.81	\$49.81	\$22.67	\$7.93					\$104.22
Feb-13	\$25.95	\$54.62	\$24.99	\$8.83	\$0.42				\$114.81
Mar-13	\$28.09	\$59.42	\$27.31	\$9.72	\$0.84				\$125.39
Apr-13	\$30.24	\$64.23	\$29.63	\$10.61	\$1.27				\$135.98
<b>Total for Rate year 2012</b>	<b>\$342.32</b>	<b>\$588.23</b>	<b>\$290.07</b>	<b>\$81.40</b>	<b>\$2.53</b>				<b>\$1,304.56</b>
May-13	\$32.38	\$69.04	\$31.95	\$11.51	\$1.69				\$146.56
Jun-13	\$34.52	\$73.85	\$34.27	\$12.40	\$2.11				\$157.15
Jul-13	\$36.67	\$78.66	\$36.58	\$13.29	\$2.53				\$167.74
Aug-13	\$38.81	\$83.47	\$38.90	\$14.18	\$2.96				\$178.32
Sep-13	\$40.96	\$88.27	\$41.22	\$15.08	\$3.38				\$188.91
Oct-13	\$43.10	\$93.08	\$43.54	\$15.97	\$3.80				\$199.49
Nov-13	\$45.24	\$97.89	\$45.86	\$16.86	\$4.22				\$210.08
Dec-13	\$47.39	\$102.70	\$48.18	\$17.76	\$4.65				\$220.66
Jan-14	\$49.53	\$107.51	\$50.50	\$18.65	\$5.07				\$231.25
Feb-14	\$49.53	\$107.51	\$50.50	\$18.65	\$5.07				\$231.25
Mar-14	\$49.53	\$107.51	\$50.50	\$18.65	\$5.07				\$231.25
Apr-14	\$49.53	\$107.51	\$50.50	\$18.65	\$5.07				\$231.25
<b>Total for Rate year 2013</b>	<b>\$859.51</b>	<b>\$1,705.22</b>	<b>\$812.55</b>	<b>\$273.03</b>	<b>\$48.15</b>				<b>\$3,698.46</b>
<b>Amount disposed</b>	<b>-\$614.00</b>	<b>-\$1,137.00</b>	<b>-\$543.00</b>	<b>-\$171.00</b>					<b>-\$2,465.00</b>
May-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Jun-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Jul-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Aug-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Sep-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Oct-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Nov-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Dec-14	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Jan-15	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Feb-15	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Mar-15	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
Apr-15	\$25.75	\$58.66	\$28.05	\$10.74	\$5.07				\$128.27
<b>Total to April 30, 2015</b>	<b>\$554.54</b>	<b>\$1,272.14</b>	<b>\$606.16</b>	<b>\$230.89</b>	<b>\$108.98</b>				<b>\$2,772.71</b>

Note: Carrying charges are simple interest (not compound) calculated using rates specified by the OEB at:

<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. Amount disposed is from EB-2013-0120 dated 2014-04-23.





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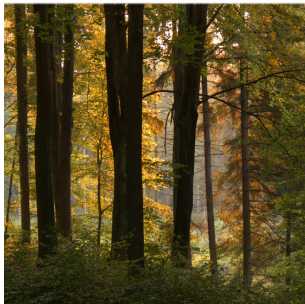
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Attachment B  
LRAMVA Third Party Report  
SMP Rate Zone  
Version 3



## Entegrus (MPDC) 2013 LRAMVA





# Entegrus (MPDC) lost revenue related to Conservation and Demand Management

*2013*



This document was prepared for Entegrus Powerlines by IndEco Strategic Consulting Inc.

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IndEco report B3856 (MPDC 2013)

9 January 2015

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## Introduction

The Lost Revenue Adjustment Mechanism (LRAM) was developed to remove the disincentive to electricity local distribution companies (LDCs) from conservation and demand management (CDM) programs. CDM programs are designed to provide energy savings and peak demand reductions for the customers of LDCs, which would directly impact the LDC's revenue. The LRAM allows LDCs to be compensated for any lost revenue that may occur due to CDM programs in the LDC's service territory.

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 may have included in the LDC's load forecast.<sup>1</sup>

Entegrus Powerlines is an amalgamation of Middlesex Power Distribution Corporation (MPDC) with Chatham-Kent Hydro that came into effect in 2012. Entegrus (Chatham-Kent) and Entegrus (MPDC) will be dealt with separately for LRAMVA purposes, as they each have different rates and rate classes.

Entegrus has contracted with the Ontario Power Authority (OPA) 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 2013 programs and persisting losses from 2011 and 2012 programs as part of their 2015 IRM applications.

Entegrus submitted a claim for lost revenues from 2011 and 2012 programs in its 2014 Incentive Regulation Mechanism (IRM) application. This report involves a determination of the variance account balance for the following revenue losses:

- 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.

The carrying charges on the above lost revenues through April 2015 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 2013, Entegrus (MPDC) offered provincial programs that were offered in partnership with the Ontario Power Authority (OPA). Entegrus (MPDC) did not offer custom programs beyond the OPA programs.

### *OPA evaluation results*

The OPA 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 their individual performance where possible, or through an allocation process.

The OPA 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 OPA 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 OPA 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, Entegrus staff estimated the split by rate class, drawing on participant-specific information where available.

### *Adjustments for results that do not affect revenues*

As previously mentioned, the OPA reports both energy savings and reductions in [system] peak 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 OPA-reported energy savings are directly relevant.

For customer classes where the LDC charges for distribution based on the customer's peak monthly demand (kW in the month), the system peak reductions are only partially relevant. For initiatives like lighting upgrades in businesses operating during normal business hours, the peak demand reductions are likely to be maintained throughout the year, including during the customer's monthly peaks, and so may be used to estimate lost revenue. For other programs, in particular demand response programs, the customer's monthly peak may not correspond to the system's peak. Further, even if they are coincident, if a demand response event is called, and the customer's monthly peak is shaved, it is likely that the customer's second highest peak in the month is only slightly less than their highest peak. Thus, the impact on distribution revenues of the demand response program is likely to be minimal, and is assumed to have zero impact on lost load.

Thus, no distribution revenues are estimated to be lost from large general service customers' participation in demand response programs.

### *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 OPA energy savings and peak demand reductions, allocated by rate class, and adjusted for differences between system peak reductions and customer monthly peak reduction. Finally the difference is calculated between the overall estimated

impact on loads and the load reductions 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 Entegrus (MPDC), 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).

### *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>2</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 variance account opening balance. Because the OPA 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 January, and 12/12 of the annual results to December.

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

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

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<sup>2</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 Entegrus (MPDC).

### *CDM results*

#### *OPA evaluation results*

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

- The verified final 2011, 2012, and 2013 results for Entegrus as a whole are shown in Table 1
- The adjustments to verified final 2011 and 2012 results for Entegrus as a whole are shown in Table 2.<sup>3</sup>

The gross results were provided by the OPA, 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 estimated 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. The OPA has provided LDCs with persistence data for all results and adjustments except for 2011 results. The persistence of 2011 results were estimated based on the contribution of 2011 results to 2014 targets reported by the OPA with the 2011 final results. Some 2011 program results were seen to not persist fully through 2014. For 2011 program results that persist into future years and do not persist fully through 2014, the results or adjustments are assumed to persist until the end of 2013. Any drop in persistence is assumed to occur in 2014.

The OPA provided 2011 results for Chatham-Kent Hydro and Middlesex Power Distribution Corporation separately, but provided 2012 and 2013 results and 2011 and 2012 adjustments for Entegrus as a whole. As the subsets of Entegrus' service territory that were previously Chatham-Kent Hydro and Middlesex Power Distribution Corporation have different rate classes and rates, they must be handled as separate rate zones for lost revenue purposes. The percentages of load in each rate class for each year were used to allocate the results and adjustments between the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation. The percentage allocation of load (in kW or kWh, depending on the billing

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<sup>3</sup> *Entegrus OPA Annual CDM Report 2013 - Final Verified Results*. Ontario Power Authority. August 29, 2013.

units of each rate class) by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation is shown in Tables A-6 (2012) and A-7 (2013) in Appendix A. Where rate classes match, the totals do not always add up to 100%, as Entegrus also includes two very small additional amalgamated previous service territories of Dutton and Newbury. The populations in both Dutton and Newbury are so small that it was assumed that they did not significantly contribute to CDM results.

### *Allocating results to rate classes*

Entegrus staff 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 Entegrus (MPDC) has no program results.

Entegrus (MPDC) 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 Entegrus (MPDC) 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 (N/A).

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 adjustments. Table B-3 in Appendix B shows the percentage allocation by rate class for 2013 results.

### *Adjustments for results that do not affect revenues*

The only adjustments relate to rate classes that are billed by customer peak kilowatt in the month. The only initiative that is affected is the Demand Response 3 program, for which no lost revenues are attributed to the reported demand reductions.

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

Entegrus (MPDC)'s last cost of service application was filed in 2006. The load forecast associated with that application did not account for load losses from 2011 – 2014 CDM programs.

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

Multiplying the energy savings or demand reduction reported for Entegrus (MPDC) 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, with adjustments for results that do not affect revenue provides the overall impact of CDM on load by rate class.

Table B-4 in Appendix B shows the overall impact of CDM on load, by rate class for 2011.

Table B-5 in Appendix B shows the overall impact of CDM on load, by rate class for 2012.

Table B-6 in Appendix B shows the overall impact of CDM on load, by rate class for 2013.

### *Distribution rates*

The distribution rates that impact lost revenue for each rate class for Entegrus (MPDC) 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.

### *Lost revenues*

The lost revenues for each year by rate class for Entegrus (MPDC) calculated from final CDM program results are shown in Table C-2 in Appendix C. The lost revenue for 2011 is based on the CDM program results and adjustments to the 2011 results allocated by rate class and multiplied by the 2011 rate for that rate class. The lost revenue for 2012 is based on the 2012 CDM program results and adjustments to the 2012 results plus the persistence of the 2011 program results in 2012 allocated by rate class and multiplied by the 2012 rate for that rate class. The lost revenue for 2013 is based on the CDM program results plus the persistence of the 2011 and 2012 program results in 2013 allocated by rate class and multiplied by the 2013 rate for that rate class.

The lost revenue for 2011-2013 is based on final verified results provided by the OPA.

In Entegrus' 2014 IRM process (EB-2013-0120), disposition of the 2011 and 2012 lost revenue amounts in Account 1568 was approved. The breakdown of these amounts by rate class is also shown in Table C-2.

The disposed values vary from the 2011 and 2012 lost revenue calculated for this report due to retroactive adjustments made by the OPA to the results of these previous years that were provided with the 2013 final results.

### *Carrying charges*

The monthly carrying charges by rate class on Entegrus (MPDC)'s lost revenue variance are shown in Table C-3 in Appendix C. The carrying charges are reported monthly, from the time the lost revenues resulted, through to April 30, 2015.

In Entegrus' 2014 IRM process (EB-2013-0120), disposition of the carrying charges to April 30, 2014 on the 2011 and 2012 lost revenue amounts in Account 1568 was approved. The breakdown of these amounts by rate class is also shown in Table C-3. The disposed values vary from the carrying charges on the 2011 and 2012 lost revenue calculated for this report due to retroactive adjustments made by the OPA to the results of these previous years that were provided with the 2013 final results.

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## Conclusions

The LRAMVA balance at the end of December 2013 for Entegrus (MPDC) that includes results from 2013 CDM programs and adjustments to 2011 and 2012 results is \$16,047.51. The total carrying charges on this LRAMVA balance accumulated to April 30, 2015 are \$424.29. These balances are attributable to individual rate classes according to the following table:

Rate class	LRAMVA	Carrying charges	Total
Residential	\$9,008.06	\$237.72	\$9,245.78
GS < 50 kW	\$2,890.77	\$76.70	\$2,967.47
GS 50 to 4,999 kW	\$4,109.08	\$108.56	\$4,217.64
Large Use	\$39.60	\$1.32	\$40.92
<b>Total</b>	<b>\$16,047.51</b>	<b>\$424.29</b>	<b>\$16,471.80</b>

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

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## Appendix A.CDM results reported by the OPA



Table 1: ENTEGRUS Initiative and Program Level Net Savings by Year (Scenario 1)

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 Demand Savings (kW)	2011-2014 Net Cumulative Energy Savings (kWh) 2014
Consumer Program															
Appliance Retirement	Appliances	421	301	182		24	18	12		177,892	119,701	76,967		54	1,224,402
Appliance Exchange	Appliances	32	28	35		3	4	7		3,098	7,322	12,930		12	58,061
HVAC Incentives	Equipment	1,040	868	810		318	182	160		569,794	303,127	264,990		659	3,718,537
Conservation Instant Coupon Booklet	Items	3,719	223	2,507		9	2	4		136,065	10,104	55,697		14	685,963
Bi-Annual Retailer Event	Items	6,880	7,666	6,827		12	11	9		212,360	193,530	124,145		31	1,678,322
Retailer Co-op	Items	0	0	0		0	0	0		0	0	0		0	0
Residential Demand Response	Devices	232	0	765		130	0	341		336	0	603		0	940
Residential Demand Response (IHD)	Devices	0	0	765		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						495	216	533		1,099,545	633,784	535,332		770	7,366,225
Business Program															
Retrofit	Projects	43	82	86		112	711	458		520,887	4,149,424	2,612,541		1,231	19,568,953
Direct Install Lighting	Projects	53	253	117		58	201	134		144,062	782,496	466,827		379	3,806,878
Building Commissioning	Buildings	0	0	0		0	0	0		0	0	0		0	0
New Construction	Buildings	0	0	0		0	0	0		0	0	0		0	0
Energy Audit	Audits	0	0	0		0	0	0		0	0	0		0	0
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	1	1	1		68	68	69		2,636	984	917		0	4,536
Business Program Total						237	980	661		667,585	4,932,904	3,080,285		1,609	23,380,367
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	2	2		0	141	101		0	246,600	176,580		243	1,092,960
Retrofit	Projects	4	0	0		10	0	0		70,196	0	0		10	280,785
Demand Response 3	Facilities	2	0	1		754	0	0		44,275	0	0		0	44,275
Industrial Program Total						765	141	101		114,471	246,600	176,580		253	1,418,020
Home Assistance Program															
Home Assistance Program	Homes	0	163	1,137		0	18	58		0	228,459	773,555		74	2,211,409
Home Assistance Program Total						0	18	58		0	228,459	773,555		74	2,211,409
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	18	0	0		111	0	0		707,984	0	0		111	2,831,935
High Performance New Construction	Projects	0	0	0		1	1	0		2,786	791	0		1	13,519
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						112	1	0		710,770	791	0		113	2,845,454
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
Other Total						0	0	0		0	0	0		0	0
Adjustments to 2011 Verified Results															
Adjustments to 2012 Verified Results															
Energy Efficiency Total						657	1,288	944		2,545,124	6,041,553	4,564,232		2,820	37,171,724
Demand Response Total (Scenario 1)						952	68	409		47,247	984	1,520		0	49,751
Adjustments to Previous Years' Verified Results Total						0	-26	21		0	-3,240	177,421		-6	517,374
OPA-Contracted LDC Portfolio Total (inc. Adjustments)						1,609	1,329	1,374		2,592,371	6,039,297	4,743,174		2,814	37,738,850
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).		The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.								Full OEB Target:				12,120	46,530,000
										% of Full OEB Target Achieved to Date (Scenario 1):				23.2%	81.1%

Table 2: Adjustments to ENTEGRUS 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)			
		2011*	2012*	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Consumer Program													
Appliance Retirement	Appliances	0	0			0	0			0	0		
Appliance Exchange	Appliances	0	0			0	0			0	0		
HVAC Incentives	Equipment	-145	20			-39	4			-69,288	7,114		
Conservation Instant Coupon Booklet	Items	59	0			0	0			1,992	0		
Bi-Annual Retailer Event	Items	591	0			1	0			15,778	0		
Retailer Co-op	Items	0	0			0	0			0	0		
Residential Demand Response	Devices	0	0			0	0			0	0		
Residential Demand Response (IHD)	Devices	0	0			0	0			0	0		
Residential New Construction	Homes	0	0			0	0			0	0		
Consumer Program Total						-38	4			-51,519	7,114		
Business Program													
Retrofit	Projects	4	8			10	14			41,693	159,424		
Direct Install Lighting	Projects	2	4			2	3			6,585	10,883		
Building Commissioning	Buildings	0	0			0	0			0	0		
New Construction	Buildings	0	0			0	0			0	0		
Energy Audit	Audits	0	0			0	0			0	0		
Small Commercial Demand Response	Devices	0	0			0	0			0	0		
Small Commercial Demand Response (IHD)	Devices	0	0			0	0			0	0		
Demand Response 3	Facilities	0	0			0	0			0	0		
Business Program Total						12	17			48,278	170,307		
Industrial Program													
Process & System Upgrades	Projects	0	0			0	0			0	0		
Monitoring & Targeting	Projects	0	0			0	0			0	0		
Energy Manager	Projects	0	0			0	0			0	0		
Retrofit	Projects	0	0			0	0			0	0		
Demand Response 3	Facilities	0	0			0	0			0	0		
Industrial Program Total						0	0			0	0		
Home Assistance Program													
Home Assistance Program	Homes	0	0			0	0			0	0		
Home Assistance Program Total						0	0			0	0		
Aboriginal Program													
Home Assistance Program	Homes	0	0			0	0			0	0		
Direct Install Lighting	Projects	0	0			0	0			0	0		
Aboriginal Program Total						0	0			0	0		
Pre-2011 Programs completed in 2011													
Electricity Retrofit Incentive Program	Projects	0	0			0	0			0	0		
High Performance New Construction	Projects	0	0			0	0			0	0		
Toronto Comprehensive	Projects	0	0			0	0			0	0		
Multifamily Energy Efficiency Rebates	Projects	0	0			0	0			0	0		
LDC Custom Programs	Projects	0	0			0	0			0	0		
Pre-2011 Programs completed in 2011 Total						0	0			0	0		
Other													
Program Enabled Savings	Projects	0	0			0	0			0	0		
Time-of-Use Savings	Homes	0	0			0	0			0	0		
Other Total						0	0			0	0		
Adjustments to 2011 Verified Results						-26				-3,240			
Adjustments to 2012 Verified Results							21				177,421		
Total Adjustments to Previous Years' Verified Results						-26	21			-3,240	177,421		

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).

The IHD line item on the 2013 annual report has been left blank pending a results update from evaluations; results will be updated once sufficient information is made available.

Adjustments to previous years' results shown in this table will not align to adjustments shown in Table 1 as the information presented above does not consider persistence of savings

Table A-1: Estimated persistence of 2011 results into future years

# Initiative	Persistence of 2011 savings					
	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>						
1 Appliance Retirement	7	49,310	7	49,310	7	49,309
2 Appliance Exchange	1	841	1	841	0	348
3 HVAC Incentives	49	90,693	49	90,693	49	90,693
4 Conservation Instant Coupon Booklet	2	28,180	2	28,180	2	28,180
5 Bi-Annual Retailer Event	2	42,895	2	42,895	2	42,895
6 Retailer Co-Op						
7 Residential Demand Response						
8 Residential Demand Response (IHD)						
9 Residential New Construction						
<b>Business Program</b>						
10 Retrofit	30	80,816	30	80,816	30	80,816
11 Direct Install Lighting	13	35,792	13	35,792	9	21,654
12 Building Commissioning						
13 New Construction						
14 Energy Audit						
15 Small Commercial Demand Response (switch/pstat)						
16 Small Commercial Demand Response (IHD)						
17 Demand Response 3						
<b>Industrial Program</b>						
18 Process & System Upgrades						
19 Monitoring & Targeting						
20 Energy Manager						
21 Retrofit						
22 Demand Response 3						
<b>Home Assistance Program</b>						
23 Home Assistance Program						
<b>Pre-2011 Programs completed in 2011</b>						
24 Electricity Retrofit Incentive Program	19	112,410	19	112,410	19	112,410
25 High Performance New Construction						

Note: Persistence is based on net incremental and program-to-date contributions to 2014 targets reported by the OPA. Some program results do not persist into future years and others persist equally into future years. For programs that have persistence into future years and persistence is not equal to the saving in the first year, the savings are assumed to persist until the end of 2013 and any drop in persistence is assumed to occur in 2014.

Table A-2: Persistence of 2012 results into future years

Persistence of 2012 savings					
		2013	2014		
#	Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
Consumer Program					
1	Appliance Retirement	18	119,701	18	119,701
2	Appliance Exchange	4	7,322	4	7,322
3	HVAC Incentives	182	303,127	182	303,127
4	Conservation Instant Coupon Booklet	2	10,104	2	10,104
5	Bi-Annual Retailer Event	11	193,530	11	193,530
6	Retailer Co-Op				
7	Residential Demand Response (switch/pstat)				
8	Residential Demand Response (IHD)				
9	Residential New Construction				
Business Program					
10	Retrofit	704	4,125,352	676	4,032,561
11	Direct Install Lighting	201	782,496	196	761,672
12	Building Commissioning				
13	New Construction				
14	Energy Audit				
15	Small Commercial Demand Response (switch/pstat)				
16	Small Commercial Demand Response (IHD)				
17	Demand Response 3				
Industrial Program					
18	Process & System Upgrades				
19	Monitoring & Targeting				
20	Energy Manager	141	246,600	141	246,600
21	Retrofit				
22	Demand Response 3				
Home Assistance Program					
23	Home Assistance Program	17	217,283	17	217,283
Pre-2011 Programs completed in 2011					
24	Electricity Retrofit Incentive Program				
25	High Performance New Construction	1	791	1	791

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

**Table A-3: Persistence of 2013 results through 2014**

Persistence of 2013 savings		
2014		
# Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>		
1 Appliance Retirement	12	76,967
2 Appliance Exchange	7	12,930
3 HVAC Incentives	160	264,990
4 Conservation Instant Coupon Booklet	4	55,697
5 Bi-Annual Retailer Event	9	124,145
6 Retailer Co-Op		
7 Residential Demand Response (switch/pstat)		
8 Residential Demand Response (IHD)		
9 Residential New Construction		
<b>Business Program</b>		
10 Retrofit	443	2,565,528
11 Direct Install Lighting	134	466,827
12 Building Commissioning		
13 New Construction		
14 Energy Audit		
15 Small Commercial Demand Response (switch/pstat)		
16 Small Commercial Demand Response (IHD)		
17 Demand Response 3		
<b>Industrial Program</b>		
18 Process & System Upgrades		
19 Monitoring & Targeting		
20 Energy Manager	101	176,580
21 Retrofit		
22 Demand Response 3		
<b>Home Assistance Program</b>		
23 Home Assistance Program	57	752,478

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

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

Persistence of 2011 adjustments						
# Initiative	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>						
1 Appliance Retirement						
2 Appliance Exchange						
3 HVAC Incentives	-39	-69,288	-39	-69,288	-39	-69,288
4 Conservation Instant Coupon Booklet	0	1,992	0	1,992	0	1,992
5 Bi-Annual Retailer Event	1	15,778	1	15,778	1	15,778
6 Retailer Co-Op						
7 Residential Demand Response						
8 Residential Demand Response (IHD)						
9 Residential New Construction						
<b>Business Program</b>						
10 Retrofit	10	41,693	10	41,693	10	41,693
11 Direct Install Lighting	2	6,585	2	6,585	1	4,657
12 Building Commissioning						
13 New Construction						
14 Energy Audit						
15 Small Commercial Demand Response (switch/pstat)						
16 Small Commercial Demand Response (IHD)						
17 Demand Response 3						
<b>Industrial Program</b>						
18 Process & System Upgrades						
19 Monitoring & Targeting						
20 Energy Manager						
21 Retrofit						
22 Demand Response 3						
<b>Home Assistance Program</b>						
23 Home Assistance Program						
<b>Pre-2011 Programs completed in 2011</b>						
24 Electricity Retrofit Incentive Program						
25 High Performance New Construction						

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

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

		Persistence of 2012 adjustments			
		2013		2014	
#	Initiative	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)	Incremental Peak Demand Savings (kW)	Incremental Energy Savings (kWh)
<b>Consumer Program</b>					
1	Appliance Retirement				
2	Appliance Exchange				
3	HVAC Incentives	4	7,114	4	7,114
4	Conservation Instant Coupon Booklet				
5	Bi-Annual Retailer Event				
6	Retailer Co-Op				
7	Residential Demand Response				
8	Residential Demand Response (IHD)				
9	Residential New Construction				
<b>Business Program</b>					
10	Retrofit	14	159,424	14	159,424
11	Direct Install Lighting	3	10,883	3	10,883
12	Building Commissioning				
13	New Construction				
14	Energy Audit				
15	Small Commercial Demand Response (switch/pstat)				
16	Small Commercial Demand Response (IHD)				
17	Demand Response 3				
<b>Industrial Program</b>					
18	Process & System Upgrades				
19	Monitoring & Targeting				
20	Energy Manager				
21	Retrofit				
22	Demand Response 3				
<b>Home Assistance Program</b>					
23	Home Assistance Program				

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

Table A-6: Percentage allocation of load by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation for 2012

Chatham-Kent Hydro										
	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Street Lighting	Microfit Generator
Allocation	79%	82%	80%	80%	100%	75%	100%	89%	80%	
Middlesex Power Distribution Corporation										
	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use		Unmetered Scattered Load		Sentinel Lighting	Street Lighting	MicroFIT Generator
Allocation	19%	14%	20%	100%		25%		11%	18%	

Note: The percentage allocation for each rate class by previous service service territory is based on the proportion of Entegrus' total loss-adjusted billed kWh or billed kW.



Table A-7: Percentage allocation of load by rate class for the previous service territories of Chatham-Kent Hydro and Middlesex Power Distribution Corporation for 2013

Chatham-Kent Hydro										
	Residential	GS < 50 kW	GS 50 to 999 kW	GS 1,000 TO 4,999 kW	Intermediate with Self Generation	Unmetered Scattered Load	Standby Power	Sentinel Lighting	Street Lighting	Microfit Generator
Allocation	77%	79%	79%	79%	100%	74%	100%	89%	79%	
Middlesex Power Distribution Corporation										
	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use		Unmetered Scattered Load		Sentinel Lighting	Street Lighting	MicroFIT Generator
Allocation	21%	17%	21%	100%		26%		11%	19%	

Note: The percentage allocation for each rate class by previous service service territory is based on the proportion of Entegrus' total loss-adjusted billed kWh or billed kW.

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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

#	Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator
<b>Consumer Program</b>									
1	Appliance Retirement	100%							
2	Appliance Exchange	100%							
3	HVAC Incentives	100%							
4	Conservation Instant Coupon Booklet	100%							
5	Bi-Annual Retailer Event	100%							
6	Retailer Co-op	100%							
7	Residential Demand Response	100%							
8	Residential New Construction	100%							
<b>Business Program</b>									
9	Efficiency: Equipment Replacement		63%	37%					
10	Direct Install Lighting		100%						
11	Existing Building Commissioning Incentive								
12	New Construction and Major Renovation Incentive								
13	Energy Audit								
14	Commercial Demand Response (part of the Residential program schedule)								
15	Demand Response 3 (part of the Industrial program schedule)								
<b>Industrial Program</b>									
16	Process & System Upgrades								
17	Monitoring & Targeting								
18	Energy Manager								
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)								
20	Demand Response 3								
<b>Home Assistance Program</b>									
21	Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>									
22	Electricity Retrofit Incentive Program		33%	33%	34%				
23	High Performance New Construction			50%	50%				

Source: Entegrus

**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	MicroFIT Generator
<b>Consumer Program</b>									
1	Appliance Retirement	100%							
2	Appliance Exchange	100%							
3	HVAC Incentives	100%							
4	Conservation Instant Coupon Booklet	100%							
5	Bi-Annual Retailer Event	100%							
6	Retailer Co-Op	100%							
7	Residential Demand Response (switch/pstat)	100%							
8	Residential Demand Response (IHD)	100%							
9	Residential New Construction	100%							
<b>Business Program</b>									
10	Retrofit		20%	80%					
11	Direct Install Lighting		100%						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager			100%					
21	Retrofit				100%				
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction			100%					
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								

Source: Entegrus

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

# Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator
<b>Consumer Program</b>								
1 Appliance Retirement	100%							
2 Appliance Exchange	100%							
3 HVAC Incentives	100%							
4 Conservation Instant Coupon Booklet	100%							
5 Bi-Annual Retailer Event	100%							
6 Retailer Co-Op	100%							
7 Residential Demand Response (switch/pstat)	100%							
8 Residential Demand Response (IHD)	100%							
9 Residential New Construction	100%							
<b>Business Program</b>								
10 Retrofit		33%	54%	13%				
11 Direct Install Lighting		100%						
12 Building Commissioning								
13 New Construction								
14 Energy Audit								
15 Small Commercial Demand Response (switch/pstat)								
16 Small Commercial Demand Response (IHD)								
17 Demand Response 3								
<b>Industrial Program</b>								
18 Process & System Upgrades								
19 Monitoring & Targeting								
20 Energy Manager			100%					
21 Retrofit				100%				
22 Demand Response 3								
<b>Home Assistance Program</b>								
23 Home Assistance Program	100%							
<b>Pre-2011 Programs completed in 2011</b>								
24 Electricity Retrofit Incentive Program								
25 High Performance New Construction			100%					
26 Toronto Comprehensive								
27 Multifamily Energy Efficiency Rebates								
28 LDC Custom Programs								

Source: Entegrus

Table B-4: Impact of CDM on load, by rate class for 2011

#	Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator
	Units	kWh	kWh	kW	kW	kWh	kW	kW	
<b>Consumer Program</b>									
1	Appliance Retirement	49,310							
2	Appliance Exchange	841							
3	HVAC Incentives	77,332							
4	Conservation Instant Coupon Booklet	28,564							
5	Bi-Annual Retailer Event	45,937							
6	Retailer Co-op								
7	Residential Demand Response	287							
8	Residential New Construction								
<b>Business Program</b>									
9	Efficiency: Equipment Replacement		54,722	142					
10	Direct Install Lighting		36,746						
11	Existing Building Commissioning Incentive								
12	New Construction and Major Renovation Incentive								
13	Energy Audit								
14	Commercial Demand Response (part of the Residential program schedule)								
15	Demand Response 3 (part of the Industrial program schedule)								
<b>Industrial Program</b>									
16	Process & System Upgrades								
17	Monitoring & Targeting								
18	Energy Manager								
19	Efficiency: Equipment Replacement Incentive (part of the C&I program schedule)								
20	Demand Response 3								
<b>Home Assistance Program</b>									
21	Home Assistance Program								
<b>Pre-2011 Programs completed in 2011</b>									
22	Electricity Retrofit Incentive Program		37,095	77	79				
23	High Performance New Construction								
<b>Total</b>		<b>202,271</b>	<b>128,563</b>	<b>218</b>	<b>79</b>				

Note: impact on load is calculated from net incremental peak demand or net incremental savings on Table 1 with adjustments contained in Table 2 from the OPA (Appendix A), depending on how that rate class is billed for distribution service, and the allocation of savings by rate class in Table B-1. The OPA provided 2011 results for MPDC, but the 2011 adjustments were provided for Entegrus as a whole. As a result, the 2011 adjustments have been allocated to the MPDC rate zone based on the allocations in Table B-6. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.

Table B-5: Impact of CDM on load, by rate class for 2012

#	Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator
	Units	kWh	kWh	kW	kW	kWh	kW	kW	
<b>Consumer Program</b>									
1	Appliance Retirement	23,082							
2	Appliance Exchange	1,412							
3	HVAC Incentives	59,824							
4	Conservation Instant Coupon Booklet	1,948							
5	Bi-Annual Retailer Event	37,319							
6	Retailer Co-Op								
7	Residential Demand Response								
8	Residential Demand Response (IHD)								
9	Residential New Construction								
<b>Business Program</b>									
10	Retrofit		124,921	1,388					
11	Direct Install Lighting		115,007						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager			338					
21	Retrofit								
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	44,054							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction			2					
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								
<b>Total</b>		<b>167,639</b>	<b>239,927</b>	<b>1,728</b>					

Note: impact on load is calculated from net incremental peak demand or net incremental savings in Table 1 with adjustments contained in Table 2 from the OPA (Appendix A) plus persistence of 2011 results and adjustments into 2012 in Tables A-1 and A-4. The demand or savings results are used, depending on how that rate class is billed for distribution service, and the Entegrus rate class load totals are allocated by rate zone based on the percentages in Table A-6 and by rate class based on the percentages in Table B-2. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.

Table B-6: Impact of CDM on load, by rate class for 2013

#	Initiative	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator
	Units	kWh	kWh	kW	kW	kWh	kW	kW	
<b>Consumer Program</b>									
1	Appliance Retirement	16,146							
2	Appliance Exchange	2,713							
3	HVAC Incentives	55,591							
4	Conservation Instant Coupon Booklet	11,684							
5	Bi-Annual Retailer Event	26,044							
6	Retailer Co-Op								
7	Residential Demand Response	127							
8	Residential Demand Response (IHD)								
9	Residential New Construction								
<b>Business Program</b>									
10	Retrofit		148,060	618	715				
11	Direct Install Lighting		80,171						
12	Building Commissioning								
13	New Construction								
14	Energy Audit								
15	Small Commercial Demand Response (switch/pstat)								
16	Small Commercial Demand Response (IHD)								
17	Demand Response 3								
<b>Industrial Program</b>									
18	Process & System Upgrades								
19	Monitoring & Targeting								
20	Energy Manager			253					
21	Retrofit								
22	Demand Response 3								
<b>Home Assistance Program</b>									
23	Home Assistance Program	162,279							
<b>Pre-2011 Programs completed in 2011</b>									
24	Electricity Retrofit Incentive Program								
25	High Performance New Construction								
26	Toronto Comprehensive								
27	Multifamily Energy Efficiency Rebates								
28	LDC Custom Programs								
<b>Total</b>		<b>274,583</b>	<b>228,232</b>	<b>871</b>	<b>715</b>				

Note: impact on load is calculated from net incremental peak demand or net incremental savings in Table 1 from the OPA (Appendix A) plus persistence of 2011 and 2012 results and adjustments into 2013 in Tables A-1, A-2, A-4, and A-5. The demand or savings results are used, depending on how that rate class is billed for distribution service, and the Entegrus rate class load totals are allocated by rate zone based on the percentages in Table A-7 and by rate class based on the percentages in Table B-3. Where billing is by monthly demand (kW), the annual demand is multiplied by 12.



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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	0.0139	0.0139	0.0140	0.0141
GS < 50 kW	kWh	0.0048	0.0048	0.0048	0.0049
GS 50 to 4,999 kW	kW	1.4387	1.4420	1.4514	1.4708
Large Use	kW	0.0540	0.0503	0.0496	0.0512
Unmetered Scattered Load	kWh	0.0052	0.0051	0.0052	0.0053
Sentinel Lighting	kW	0.9871	0.9861	0.9915	1.0052
Street Lighting	kW	0.5784	0.5765	0.5794	0.5876
MicroFIT Generator					

Notes: Distribution rates are from OEB approved rate schedules averaged from the rate year to the calendar year. Only the Distribution Volumetric Rate and the Rate Rider for Application of Tax Change are used.

Table C-2: Lost revenues for each year by rate class

Year	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator	Total
2011	\$2,811.57	\$617.10	\$314.14	\$4.26					\$3,747.08
2012	\$5,137.77	\$1,768.75	\$2,806.48	\$3.97					\$9,716.96
2013	\$8,988.72	\$2,860.91	\$4,068.46	\$39.37					\$15,957.47
Amount disposed	-\$7,930.00	-\$2,356.00	-\$3,080.00	-\$8.00					-\$13,374.00
<b>Total</b>	<b>\$9,008.06</b>	<b>\$2,890.77</b>	<b>\$4,109.08</b>	<b>\$39.60</b>					<b>\$16,047.51</b>

Note: Values are the product of the actual lost loads (Tables B-4, B-5, and B-6), and the rates (Table C-1) for each rate class. Amount disposed is from EB-2013-0120 dated 2014-04-23.

Table C-3: Monthly carrying charges by rate class

Month	Residential	GS < 50 kW	GS 50 to 4,999 kW	Large Use	Unmetered Scattered Load	Sentinel Lighting	Street Lighting	MicroFIT Generator	Total
Jan-11									
Feb-11	\$0.29	\$0.06	\$0.03	\$0.00					\$0.38
Mar-11	\$0.57	\$0.13	\$0.06	\$0.00					\$0.77
Apr-11	\$0.86	\$0.19	\$0.10	\$0.00					\$1.15
<b>Total for Rate year 2010</b>	<b>\$1.72</b>	<b>\$0.38</b>	<b>\$0.19</b>	<b>\$0.00</b>					<b>\$2.30</b>
May-11	\$1.15	\$0.25	\$0.13	\$0.00					\$1.53
Jun-11	\$1.44	\$0.31	\$0.16	\$0.00					\$1.91
Jul-11	\$1.72	\$0.38	\$0.19	\$0.00					\$2.30
Aug-11	\$2.01	\$0.44	\$0.22	\$0.00					\$2.68
Sep-11	\$2.30	\$0.50	\$0.26	\$0.00					\$3.06
Oct-11	\$2.58	\$0.57	\$0.29	\$0.00					\$3.44
Nov-11	\$2.87	\$0.63	\$0.32	\$0.00					\$3.83
Dec-11	\$3.16	\$0.69	\$0.35	\$0.00					\$4.21
Jan-12	\$3.44	\$0.76	\$0.38	\$0.01					\$4.59
Feb-12	\$3.97	\$0.94	\$0.67	\$0.01					\$5.58
Mar-12	\$4.49	\$1.12	\$0.96	\$0.01					\$6.57
Apr-12	\$5.02	\$1.30	\$1.24	\$0.01					\$7.57
<b>Total for Rate year 2011</b>	<b>\$35.87</b>	<b>\$8.26</b>	<b>\$5.37</b>	<b>\$0.05</b>					<b>\$49.56</b>
May-12	\$5.54	\$1.48	\$1.53	\$0.01					\$8.56
Jun-12	\$6.07	\$1.66	\$1.82	\$0.01					\$9.55
Jul-12	\$6.59	\$1.84	\$2.10	\$0.01					\$10.54
Aug-12	\$7.12	\$2.02	\$2.39	\$0.01					\$11.53
Sep-12	\$7.64	\$2.20	\$2.68	\$0.01					\$12.53
Oct-12	\$8.16	\$2.38	\$2.96	\$0.01					\$13.52
Nov-12	\$8.69	\$2.56	\$3.25	\$0.01					\$14.51
Dec-12	\$9.21	\$2.74	\$3.54	\$0.01					\$15.50
Jan-13	\$9.74	\$2.92	\$3.82	\$0.01					\$16.49
Feb-13	\$10.66	\$3.21	\$4.24	\$0.01					\$18.12
Mar-13	\$11.57	\$3.51	\$4.65	\$0.02					\$19.75
Apr-13	\$12.49	\$3.80	\$5.07	\$0.02					\$21.38
<b>Total for Rate year 2012</b>	<b>\$139.35</b>	<b>\$38.59</b>	<b>\$43.43</b>	<b>\$0.18</b>					<b>\$221.54</b>
May-13	\$13.41	\$4.09	\$5.48	\$0.03					\$23.01
Jun-13	\$14.33	\$4.38	\$5.90	\$0.03					\$24.64
Jul-13	\$15.24	\$4.67	\$6.31	\$0.03					\$26.27
Aug-13	\$16.16	\$4.97	\$6.73	\$0.04					\$27.90
Sep-13	\$17.08	\$5.26	\$7.15	\$0.04					\$29.53
Oct-13	\$18.00	\$5.55	\$7.56	\$0.05					\$31.15
Nov-13	\$18.91	\$5.84	\$7.98	\$0.05					\$32.78
Dec-13	\$19.83	\$6.14	\$8.39	\$0.05					\$34.41
Jan-14	\$20.75	\$6.43	\$8.81	\$0.06					\$36.04
Feb-14	\$20.75	\$6.43	\$8.81	\$0.06					\$36.04
Mar-14	\$20.75	\$6.43	\$8.81	\$0.06					\$36.04
Apr-14	\$20.75	\$6.43	\$8.81	\$0.06					\$36.04
<b>Total for Rate year 2013</b>	<b>\$355.30</b>	<b>\$105.20</b>	<b>\$134.15</b>	<b>\$0.74</b>					<b>\$595.40</b>
<b>Amount disposed</b>	<b>-\$250.00</b>	<b>-\$71.00</b>	<b>-\$86.00</b>						<b>-\$407.00</b>
May-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Jun-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Jul-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Aug-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Sep-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Oct-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Nov-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Dec-14	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Jan-15	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Feb-15	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Mar-15	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
Apr-15	\$11.03	\$3.54	\$5.03	\$0.05					\$19.66
<b>Total to April 30, 2015</b>	<b>\$237.72</b>	<b>\$76.70</b>	<b>\$108.56</b>	<b>\$1.32</b>					<b>\$424.29</b>

Note: Carrying charges are simple interest (not compound) calculated using rates specified by the OEB at:

<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. Amount disposed is from EB-2013-0120 dated 2014-04-23.





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Attachment C  
Entegrus Deferral and Variance  
Account Disposition Model  
Updated January 15, 2015

Entegrus Powerlines Inc.  
2015 IRM4 Application, EB-2014-0064  
Calculation of Group One Total Claim

Account	USOA	2013			2014		Balance for Disposition		Projected Interest		Total Claim			
		Principal	Interest	Total	BA Principal	BA Interest	Principal	Interest	Jan/14-Dec/14	Jan/15-Apr/15	Principal	Interest	Total (Note 1)	
CK														
LV Variance Account	1550	\$520,920	\$7,381	\$528,301			\$520,920	\$7,381	\$7,658	\$2,553	\$520,920	\$17,591	\$538,511	
Smart Metering Entity Charge Variance	1551	\$23,467	-\$17	\$23,449			\$23,467	-\$17	\$345	\$115	\$23,467	\$443	\$23,909	
RSVA - Wholesale Market Service Charge	1580	-\$1,067,071	-\$22,079	-\$1,089,150			-\$1,067,071	-\$22,079	-\$15,686	-\$5,229	-\$1,067,071	-\$42,994	-\$1,110,065	
RSVA - Retail Transmission Network Charge	1584	\$331,796	\$4,552	\$336,348			\$331,796	\$4,552	\$4,877	\$1,626	\$331,796	\$11,055	\$342,851	
RSVA - Retail Transmission Connection Charge	1586	\$993,706	\$13,393	\$1,007,099			\$993,706	\$13,393	\$14,607	\$4,869	\$993,706	\$32,870	\$1,026,575	
RSVA - Power (excluding Global Adjustment)	1588	\$674,726	\$9,704	\$684,430			\$674,726	\$9,704	\$9,918	\$3,306	\$674,726	\$22,929	\$697,655	
RSVA - Global Adjustment	1589	\$515,790	\$6,121	\$521,911			\$515,790	\$6,121	\$7,582	\$2,527	\$515,790	\$16,230	\$532,021	
Recovery of Regulatory Asset Balances	1590	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2008)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2009)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2010)4	1595	-\$387,723	\$0	-\$387,723			-\$387,723	\$0			-\$387,723	\$0	-\$387,723	
Disposition and Recovery/Refund of Regulatory Balances (2011)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2012)4	1595	\$41,488	\$0	\$41,488			\$41,488	\$0			\$41,488	\$0	\$41,488	
LRAM Variance Account	1568	\$100,143	\$3,459	\$103,602			\$100,143	\$3,459			\$100,143	\$3,459	\$103,602	
SMP														
LV Variance Account	1550	\$252,726	\$8,341	\$261,067	\$175,791	\$8,065	\$76,935	\$276	\$1,131	\$377	\$76,935	\$1,784	\$78,719	
Smart Metering Entity Charge Variance	1551	\$4,801	\$6	\$4,807			\$4,801	\$6	\$71	\$24	\$4,801	\$100	\$4,901	
RSVA - Wholesale Market Service Charge	1580	-\$337,938	-\$5,637	-\$343,574	-\$198,713	-\$5,591	-\$139,225	-\$46	-\$2,047	-\$682	-\$139,225	-\$2,775	-\$141,999	
RSVA - Retail Transmission Network Charge	1584	-\$43,422	-\$390	-\$43,812	-\$47,360	-\$682	\$3,938	\$291	\$58	\$19	\$3,938	\$369	\$4,307	
RSVA - Retail Transmission Connection Charge	1586	\$137,985	\$686	\$138,671	\$8,466	\$55	\$129,519	\$631	\$1,904	\$635	\$129,519	\$3,169	\$132,688	
RSVA - Power (excluding Global Adjustment)	1588	\$147,556	\$3,708	\$151,264	-\$60,642	-\$631	\$208,198	\$4,340	\$3,061	\$1,020	\$208,198	\$8,420	\$216,618	
RSVA - Global Adjustment	1589	-\$201,659	-\$3,436	-\$205,095	-\$128,282	-\$3,895	-\$73,377	\$459	-\$1,079	-\$360	-\$73,377	-\$979	-\$74,356	
Recovery of Regulatory Asset Balances	1590	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2008)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2009)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2010)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2011)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2012)4	1595	-\$6,561	\$0	-\$6,561			-\$6,561	\$0			-\$6,561	\$0	-\$6,561	
LRAM Variance Account	1568													
DUTTON														
LV Variance Account	1550	\$16,886	-\$247	\$16,639	\$13,929	-\$117	\$2,957	-\$130	\$43	\$14	\$2,957	-\$72	\$2,885	
Smart Metering Entity Charge Variance	1551	\$184	\$0	\$185			\$184	\$0	\$3	\$1	\$184	\$4	\$188	
RSVA - Wholesale Market Service Charge	1580	-\$21,096	-\$533	-\$21,630	-\$15,746	-\$691	-\$5,351	\$157	-\$79	-\$26	-\$5,351	\$52	-\$5,298	
RSVA - Retail Transmission Network Charge	1584	-\$3,601	-\$3	-\$3,604	-\$3,753	-\$52	\$151	\$49	\$2	\$1	\$151	\$52	\$203	
RSVA - Retail Transmission Connection Charge	1586	\$5,648	\$106	\$5,754	\$671	\$88	\$4,978	\$17	\$73	\$24	\$4,978	\$115	\$5,093	
RSVA - Power (excluding Global Adjustment)	1588	\$3,196	\$763	\$3,960	-\$4,805	\$548	\$8,001	\$215	\$118	\$39	\$8,001	\$372	\$8,374	
RSVA - Global Adjustment	1589	-\$12,108	-\$816	-\$12,925	-\$11,364	-\$1,018	-\$744	\$202	-\$11	-\$4	-\$744	\$187	-\$557	
Recovery of Regulatory Asset Balances	1590	\$6,491	\$0	\$6,491	\$6,491	\$0	\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2008)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2009)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2010)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2011)4	1595	\$0	\$0	\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2012)4	1595	\$1,334	\$0	\$1,334			\$1,334	\$0			\$1,334	\$0	\$1,334	
NEWBURY														
LV Variance Account	1550	\$5,388	-\$821	\$4,567	\$4,121	-\$802	\$1,267	-\$19	\$19	\$6	\$1,267	\$5	\$1,272	
Smart Metering Entity Charge Variance	1551	\$79	\$0	\$79			\$79	\$0	\$1	\$0	\$79	\$2	\$81	
RSVA - Wholesale Market Service Charge	1580	-\$6,952	-\$57	-\$7,008	-\$4,659	-\$83	-\$2,293	\$26	-\$34	-\$11	-\$2,293	-\$19	-\$2,311	
RSVA - Retail Transmission Network Charge	1584	-\$1,046	-\$18	-\$1,064	-\$1,110	-\$30	\$65	\$11	\$1	\$0	\$65	\$13	\$77	
RSVA - Retail Transmission Connection Charge	1586	\$2,331	\$65	\$2,396	\$198	\$56	\$2,133	\$9	\$31	\$10	\$2,133	\$51	\$2,184	
RSVA - Power (excluding Global Adjustment)	1588	\$2,007	\$309	\$2,315	-\$1,422	\$229	\$3,428	\$80	\$50	\$17	\$3,428	\$147	\$3,575	
RSVA - Global Adjustment	1589	-\$3,379	-\$414	-\$3,793	-\$2,477	-\$437	-\$902	\$23	-\$13	-\$4	-\$902	\$6	-\$897	
Recovery of Regulatory Asset Balances	1590	\$29,050	\$0	\$29,050			\$29,050	\$0			\$29,050	\$0	\$29,050	
Disposition and Recovery/Refund of Regulatory Balances (2008)4	1595			\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2009)4	1595			\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2010)4	1595			\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2011)4	1595			\$0			\$0	\$0			\$0	\$0	\$0	
Disposition and Recovery/Refund of Regulatory Balances (2012)4	1595			\$0			\$0	\$0			\$0	\$0	\$0	

Note 1: Balances ties to Rate Generator Model, Tab "5. 2014 Continuity Schedule", Column BE



**Entegrus Powerlines Inc.**

**2015 IRM4 Application, EB-2014-0064**

**Group One Deferral Disposition Threshold Test**

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<b>Rate Zone</b>	<b>Total Group One</b>	<b>kWh</b>	<b>Threshold Test</b>	<b>Test Met</b>	<b>Last Disposition</b>
CK	\$1,705,222	715,307,971	\$0.0024	Yes	December 31, 2011
SMP	\$214,317	206,264,546	\$0.0010	Yes	December 31, 2012
Dutton	\$12,221	7,927,128	\$0.0015	Yes	December 31, 2012
Newbury	\$33,032	3,396,582	\$0.0097	Yes	December 31, 2012
<b>Total</b>	<b>\$1,964,792</b>	<b>932,896,227</b>	<b>\$0.0021</b>	<b>Yes</b>	

Entegrus Powerlines Inc.  
2015 IRM4 Application, EB-2014-0064  
Group One Deferral Disposition Calculation, Rate Zone: CK

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	28,799	216,352,313	-	19,943,840	-
General Service <50	3,087	84,825,628	-	12,121,570	-
General Service >50	381	254,848,304	691,390	204,241,649	587,994
Intermediate	13	112,421,651	278,345	112,421,651	278,345
Intermediate w/Self Gen - Class A	1	39,427,413	87,871	39,427,413	87,871
Unmetered Scattered Load Connections	199	904,820	-	-	-
Sentinel Lighting Connections	440	364,770	1,002	136,303	354
Street Lighting Connections	10,623	6,163,072	18,186	6,163,083	18,186
<b>Total</b>	<b>43,543</b>	<b>715,307,971</b>	<b>1,076,794</b>	<b>394,455,509</b>	<b>972,750</b>
<b>Total Excluding Class A</b>		<b>675,880,557</b>		<b>355,028,096</b>	

Allocation of Deferral Balances							
Deferral Acct	1550	1551	1580	1584	1586	1588	1589
<b>Total Claim Per Board Model:</b>	<b>\$538,511.06</b>	<b>\$23,909.26</b>	<b>-\$1,110,064.95</b>	<b>\$342,851.03</b>	<b>\$1,026,575.42</b>	<b>\$697,654.87</b>	<b>\$532,020.65</b>
<b>Allocation Notes:</b>	Total kWh	Res & GS<50 Customer No.	Total kWh	Total kWh	Total kWh	Total kWh	Total Non-RPP kWh Excluding Class A
Residential	\$162,878.26	\$21,594.51	-\$335,750.65	\$103,698.85	\$310,498.38	\$211,012.95	\$29,886.46
General Service <50	\$63,859.96	\$2,314.74	-\$131,638.34	\$40,657.39	\$121,737.64	\$82,732.21	\$18,164.55
General Service >50	\$191,859.50		-\$395,491.43	\$122,150.19	\$365,745.96	\$248,558.90	\$306,062.47
Intermediate	\$84,635.30		-\$174,463.78	\$53,884.31	\$161,342.12	\$109,647.19	\$168,467.34
Intermediate w/Self Gen - Class A	\$29,682.46		-\$61,186.22	\$18,897.78	\$56,584.32	\$38,454.38	\$0.00
Unmetered Scattered Load Connections	\$681.18		-\$1,404.16	\$433.69	\$1,298.55	\$882.49	\$0.00
Sentinel Lighting Connections	\$274.61		-\$566.08	\$174.84	\$523.50	\$355.77	\$204.25
Street Lighting Connections	\$4,639.80		-\$9,564.29	\$2,953.99	\$8,844.94	\$6,010.97	\$9,235.57
<b>Total</b>	<b>\$538,511.06</b>	<b>\$23,909.26</b>	<b>-\$1,110,064.95</b>	<b>\$342,851.03</b>	<b>\$1,026,575.42</b>	<b>\$697,654.87</b>	<b>\$532,020.65</b>

Allocation of Residual Balances, Account 1595					
Application	EB-2011-0163 - Group One		EB-2012-0097 - PILs		Total
Residual Balance	\$46,267.11		-\$4,779.52		
Rate Class	Original Allocation	Allocated Balance	Original Allocation	Allocated Balance	
Residential	31.07%	\$14,373.26	53.36%	-\$2,550.34	\$11,822.92
General Service <50	13.54%	\$6,262.45	14.54%	-\$695.04	\$5,567.41
General Service >50	28.50%	\$13,185.71	11.14%	-\$532.48	\$12,653.23
Intermediate	20.99%	\$9,711.16	18.01%	-\$860.59	\$8,850.57
Intermediate w/Self Gen - Class A	4.83%	\$2,235.71	1.83%	-\$87.28	\$2,148.43
Unmetered Scattered Load Connections	0.16%	\$75.06	0.10%	-\$4.69	\$70.37
Sentinel Lighting Connections	0.05%	\$24.10	0.14%	-\$6.66	\$17.44
Street Lighting Connections	0.86%	\$399.67	0.89%	-\$42.44	\$357.23
Total		\$46,267.12		-\$4,779.52	\$41,487.60

Calculation of Rate Riders					
Rate Class	Billing Unit	Group One Disp Total \$	Rate Rider For Group One Disp	Non-RPP Excluding Class A	Rate Rider for Global Adj
Residential	kWh	\$485,755.21	0.0022	\$29,886.46	0.0015
General Service <50	kWh	\$185,231.01	0.0022	\$18,164.55	0.0015
General Service >50	kW	\$545,476.36	0.7890	\$306,062.47	0.5205
Intermediate	kW	\$243,895.71	0.8762	\$168,467.34	0.6052
Intermediate w/Self Gen - Class A	kW	\$84,581.15	0.9626	\$0.00	-
Unmetered Scattered Load Connections	kWh	\$1,962.11	0.0022	\$0.00	-
Sentinel Lighting Connections	kW	\$780.08	0.7785	\$204.25	0.5770
Street Lighting Connections	kW	\$13,242.65	0.7282	\$9,235.57	0.5078
<b>Total</b>		<b>\$1,560,924.28</b>		<b>\$532,020.65</b>	

Rate Rider Recovery Period
1

**Notes:**

- A) To date, CK rate zone does not have any Market Participants.  
B) The sole customer in the "Intermediate with Self Generation" class is a "Class A" customer.

Entegrus Powerlines Inc.

2015 IRM4 Application, EB-2014-0064

Deferral Disposition Calculation CK 2010 Non-RPP Rate Rider Residual Balance

MUSH Sector					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential					
General Service <50					
General Service >50	71			49,104,778	137,842
Intermediate	1			8,276,552	16,790
Intermediate w/Self Generation					
Unmetered Scattered Load Connections					
Sentinel Lighting Connections					
Street Lighting Connections					
<b>Total</b>	<b>72</b>	<b>-</b>	<b>-</b>	<b>57,381,330</b>	<b>154,633</b>

2013 Billing Determinants less Non-RPP MUSH					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	28,799	216,352,313	-	19,943,840	-
General Service <50	3,087	84,825,628	-	12,121,570	-
General Service >50	310	254,848,304	691,390	155,136,871	450,152
Intermediate	12	112,421,651	278,345	104,145,099	261,555
Intermediate w/Self Generation	1	39,427,413	87,871	39,427,413	87,871
Unmetered Scattered Load Connections	199	904,820	-	-	-
Sentinel Lighting Connections	440	364,770	1,002	136,303	354
Street Lighting Connections	10,623	6,163,072	18,186	6,163,083	18,186
<b>Total</b>	<b>43,471</b>	<b>715,307,971</b>	<b>1,076,794</b>	<b>337,074,179</b>	<b>818,117</b>

Calculation of Residual Balance				
Rate Class	Original Disposition EB-2009-0261	Amount Collected Jun10-Apr12	Reallocate Outstanding USL Balance	Total Residual Balance
Residential	\$196,964.00	-\$164,184.01	\$808.82	\$33,588.81
General Service <50	\$79,078.00	-\$40,655.34	\$324.73	\$38,747.39
General Service >50	\$116,808.00	-\$800,526.14	\$479.67	-\$683,238.47
Intermediate	\$644,251.00	-\$468,796.64	\$2,645.59	\$178,099.95
Intermediate w/Self Generation	\$148,319.00	-\$115,740.21	\$609.06	\$33,187.85
Unmetered Scattered Load Connections	\$4,979.00	\$0.00	-\$4,979.00	\$0.00
Sentinel Lighting Connections	\$548.00	-\$580.49	\$2.25	-\$30.24
Street Lighting Connections	\$26,514.00	-\$14,701.44	\$108.88	\$11,921.44
<b>Total</b>	<b>\$1,217,461.00</b>	<b>-\$1,605,184.27</b>	<b>\$0.00</b>	<b>-\$387,723.27</b>

Calculation of Rate Riders			
Rate Class	Billing Unit	Non-RPP Disposition \$	Rate Rider for Global Adj
Residential	kWh	\$33,588.81	0.0017
General Service <50	kWh	\$38,747.39	0.0032
General Service >50	kW	-\$683,238.47	(1.5178)
Intermediate	kW	\$178,099.95	0.6809
Intermediate w/Self Generation	kW	\$33,187.85	0.3777
Unmetered Scattered Load Connections	kWh	\$0.00	-
Sentinel Lighting Connections	kW	-\$30.24	(0.0854)
Street Lighting Connections	kW	\$11,921.44	0.6555
<b>Total</b>		<b>-\$387,723.27</b>	

Rate Rider  
Recovery  
Period

1

**Entegrus Powerlines Inc.**  
**2015 IRM [EB-2014-0064]: SMP Deferral Disposition Calculation**

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	6,505	58,964,339	-	6,769,443	-
General Service <50	663	18,380,349	-	2,745,076	-
General Service >50	96	90,646,720	256,034	87,953,033	232,841
General Service >50 - Market Participant ("MP")	1	4,199,611	9,630	4,199,611	9,630
Large User- Class A	1	32,247,068	67,914	32,247,068	67,914
Unmetered Scattered Load Connections	52	323,846	-	85,116	-
Sentinel Lighting Connections	52	44,509	126	7,442	43
Street Lighting Connections	2,369	1,458,104	4,316	1,458,103	4,316
<b>Total</b>	<b>9,739</b>	<b>206,264,546</b>	<b>338,020</b>	<b>135,464,892</b>	<b>314,744</b>
Total Excluding Market Participant		202,064,935			
Total Excluding Market Participant and Class A		99,018,213			

Allocation of Deferral Balances							
Deferral Acct	1550	1551	1580	1584	1586	1588	1589
Total Claim Per Board Model:	\$78,718.86	\$4,900.61	-\$141,999.30	\$4,306.99	\$132,688.48	\$216,618.43	-\$74,356.20
Allocation Notes:	Total kWh	Res & GS<50 Customer No.	Total kWh Excluding MP	Total kWh	Total kWh	Total kWh Excluding MP	Total Non-RPP kWh Excluding MP & Class A
Residential	\$22,503.17	\$4,447.33	-\$41,436.65	\$1,231.23	\$37,931.33	\$63,211.18	-\$5,083.41
General Service <50	\$7,014.68	\$453.28	-\$12,916.62	\$383.80	\$11,823.94	\$19,704.17	-\$2,061.37
General Service >50	\$34,594.44		-\$63,701.16	\$1,892.78	\$58,312.37	\$97,175.45	-\$66,046.97
General Service >50 - Market Participant ("MP")	\$1,602.74		\$0.00	\$87.69	\$2,701.58	\$0.00	\$0.00
Large Use - Class A	\$12,306.78		-\$22,661.33	\$673.35	\$20,744.30	\$34,569.63	\$0.00
Unmetered Scattered Load Connections	\$123.59		-\$227.58	\$6.76	\$208.33	\$347.17	-\$63.92
Sentinel Lighting Connections	\$16.99		-\$31.28	\$0.93	\$28.63	\$47.71	-\$5.59
Street Lighting Connections	\$556.47		-\$1,024.67	\$30.45	\$937.99	\$1,563.12	-\$1,094.94
<b>Total</b>	<b>\$78,718.86</b>	<b>\$4,900.61</b>	<b>-\$141,999.30</b>	<b>\$4,306.99</b>	<b>\$132,688.48</b>	<b>\$216,618.43</b>	<b>-\$74,356.20</b>

Allocation of Residual Balances, Account 1595						
Application	EB-2011-0148 - Group One		EB-2012-0098 - PILs		Total	
Residual Balance	\$668.21		-\$7,229.07			
Rate Class	Original Alloc	Alloc Balance	Original Alloc	Alloc Balance		
Residential	29.51%	\$197.20	76.63%	-\$5,539.70	-\$5,342.50	
General Service <50	9.02%	\$60.26	9.60%	-\$694.09	-\$633.83	
General Service >50	46.02%	\$293.86	12.49%	-\$863.09	-\$569.23	
General Service >50 - Market Participant ("MP")	0.00%	\$13.62	0.00%	-\$40.01	-\$26.39	
Large Use - Class A	14.55%	\$97.20	0.78%	-\$56.12	\$41.08	
Unmetered Scattered Load Connections	0.16%	\$1.05	0.26%	-\$18.71	-\$17.66	
Sentinel Lighting Connections	0.02%	\$0.14	0.01%	-\$0.83	-\$0.69	
Street Lighting Connections	0.73%	\$4.88	0.23%	-\$16.53	-\$11.65	
Total		\$668.21		-\$7,229.08	-\$6,560.87	

Rate Rider Recovery Period
1

Rate Class	Billing Unit	Group One Disp Total \$	Group One Rate Rider	Group One for MP Only	Group One- MP Rate Rider	Non-RPP Excluding MP & Class A	Non-RPP Rate Rider
Residential	kWh	\$82,545.08	0.0014		-	-\$5,083.41	(0.0008)
General Service <50	kWh	\$25,829.42	0.0014		-	-\$2,061.37	(0.0008)
General Service >50	kW	\$127,704.65	0.4988		-	-\$66,046.97	(0.2837)
General Service >50 - Market Participant ("MP")	kW		-	\$4,365.63	0.4533	\$0.00	-
Large Use - Class A	kW	\$45,673.80	0.6725		-	\$0.00	-
Unmetered Scattered Load Connections	kWh	\$440.61	0.0014		-	-\$63.92	(0.0008)
Sentinel Lighting Connections	kW	\$62.29	0.4944		-	-\$5.59	(0.1300)
Street Lighting Connections	kW	\$2,051.71	0.4754		-	-\$1,094.94	(0.2537)
<b>Total</b>		<b>\$284,307.57</b>		<b>\$4,365.63</b>		<b>-\$74,356.20</b>	

**Notes:**

A) SMP rate zone has one Market Participant customer billed as a GS>50 customer. The rate class billing determinants have been split to facilitate the necessary calculation.

B) The sole customer in the "Large Use" class is a "Class A" customer.

**Entegrus Powerlines Inc.**  
**2015 IRM [EB-2014-0064]: Dutton Deferral Disposition Calculation**

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer No.	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	542	4,459,461	-	446,086	-
General Service <50	89	3,350,792	-	812,196	-
Sentinel Lighting Connections	1	881	2	-	-
Street Lighting Connections	208	115,994	343	115,986	343
<b>Total</b>	<b>840</b>	<b>7,927,128</b>	<b>345</b>	<b>1,374,268</b>	<b>343</b>

Allocation of Deferral Balances							
Deferral Acct	1550	1551	1580	1584	1586	1588	1589
Total Claim Per Board Model:	\$2,884.71	\$188.34	-\$5,298.37	\$203.40	\$5,092.69	\$8,373.55	-\$557.11
Allocation Notes:	Total kWh	Res & GS<50 Customer No.	Total kWh	Total kWh	Total kWh	Total kWh	Total Non-RPP kWh
Residential	\$1,622.82	\$161.78	-\$2,980.63	\$114.43	\$2,864.93	\$4,710.60	-\$180.84
General Service <50	\$1,219.37	\$26.56	-\$2,239.62	\$85.98	\$2,152.68	\$3,539.49	-\$329.25
Sentinel Lighting Connections	\$0.32		-\$0.59	\$0.02	\$0.57	\$0.93	\$0.00
Street Lighting Connections	\$42.21		-\$77.53	\$2.98	\$74.52	\$122.53	-\$47.02
<b>Total</b>	<b>\$2,884.71</b>	<b>\$188.34</b>	<b>-\$5,298.37</b>	<b>\$203.40</b>	<b>\$5,092.69</b>	<b>\$8,373.55</b>	<b>-\$557.11</b>

Allocation of Residual Balances, Account 1595			
Application	EB-2011-0149 - Group One		Total
Residual Balance	\$1,333.79		
Rate Class	Original Alloc	Alloc Balance	
Residential	55.95%	\$746.26	\$746.26
General Service <50	42.64%	\$568.73	\$568.73
Sentinel Lighting Connections	0.01%	\$0.13	\$0.13
Street Lighting Connections	1.40%	\$18.67	\$18.67
Total		\$1,333.79	\$1,333.79

Calculation of Rate Riders					
Rate Class	Billing Unit	Group One Disp Total \$	Group One Rate Rider	Non-RPP Disp Total \$	Non-RPP Rate Rider
Residential	kWh	\$7,240.17	0.0016	-\$180.84	(0.0004)
General Service <50	kWh	\$5,353.20	0.0016	-\$329.25	(0.0004)
Sentinel Lighting Connections	kW	\$1.38	0.6905	\$0.00	-
Street Lighting Connections	kW	\$183.37	0.5346	-\$47.02	(0.1371)
<b>Total</b>		<b>\$12,778.12</b>		<b>-\$557.11</b>	

**Entegrus Powerlines Inc.**  
**2015 IRM [EB-2014-0064]: Newbury Deferral Disposition Calculation**

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer No.	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	170	1,295,687	-	126,256	-
General Service <50	33	469,879	-	24,072	-
General Service >50	4	1,575,940	4,253	1,460,260	3,885
Street Lighting Connections	74	55,076	163	55,074	163
<b>Total</b>	<b>281</b>	<b>3,396,582</b>	<b>4,416</b>	<b>1,665,662</b>	<b>4,048</b>

Allocation of Deferral Balances							
Deferral Acct	1550	1551	1580	1584	1586	1588	1589
Total Claim Per Board Model:	\$1,272.23	\$80.70	-\$2,311.14	\$77.40	\$2,183.84	\$3,575.37	-\$896.65
Allocation Notes:	Total kWh	Res & GS<50 Customer No.	Total kWh	Total kWh	Total kWh	Total kWh	Total Non-RPP kWh
Residential	\$485.31	\$67.58	-\$881.63	\$29.53	\$833.06	\$1,363.89	-\$67.97
General Service <50	\$176.00	\$13.12	-\$319.72	\$10.71	\$302.11	\$494.61	-\$12.96
General Service >50	\$590.29		-\$1,072.32	\$35.91	\$1,013.25	\$1,658.90	-\$786.08
Street Lighting Connections	\$20.63		-\$37.48	\$1.26	\$35.41	\$57.98	-\$29.65
<b>Total</b>	<b>\$1,272.23</b>	<b>\$80.70</b>	<b>-\$2,311.14</b>	<b>\$77.40</b>	<b>\$2,183.84</b>	<b>\$3,575.37</b>	<b>-\$896.65</b>

Allocation of Residual Balances, Account 1595					
Application	EB-2009-0203- Group One		EB-2011-0150 - Group One		Total
Residual Balance	\$29,050.45		\$862.57		
Rate Class	Original Alloc	Alloc Balance	Original Alloc	Alloc Balance	
Residential	40.01%	\$11,623.74	40.46%	\$349.00	\$11,623.74
General Service <50	16.91%	\$4,912.15	13.73%	\$118.43	\$4,912.15
General Service >50	41.50%	\$12,055.51	44.30%	\$382.12	\$12,055.51
Street Lighting Connections	1.58%	\$459.06	1.51%	\$13.02	\$459.06
Total		\$29,050.46		\$862.57	\$29,050.46

Calculation of Rate Riders					
Rate Class	Billing Unit	Group One Disp Total \$	Group One Rate Rider	Non-RPP Disp Total \$	Non-RPP Rate Rider
Residential	kWh	\$13,521.49	0.0052	-\$67.97	(0.0003)
General Service <50	kWh	\$5,588.98	0.0059	-\$12.96	(0.0003)
General Service >50	kW	\$14,281.54	1.6790	-\$786.08	(0.1012)
Street Lighting Connections	kW	\$536.86	1.6468	-\$29.65	(0.0909)
<b>Total</b>		<b>\$33,928.86</b>		<b>-\$896.65</b>	

Proposed Disp Years
2
Please See Manager's Summary Section 3.3 for more details.

Entegrus Powerlines Inc.

2015 IRM4 Application, EB-2014-0064

LRAMVA Disposition Calculation, Rate Zone: CK

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	28,799	216,352,313	-	19,943,840	-
General Service <50	3,087	84,825,628	-	12,121,570	-
General Service >50	381	254,848,304	691,390	204,241,649	587,994
Intermediate	13	112,421,651	278,345	112,421,651	278,345
Intermediate w/Self Generation	1	39,427,413	87,871	39,427,413	87,871
Unmetered Scattered Load Connections	199	904,820	-	-	-
Sentinel Lighting Connections	440	364,770	1,002	136,303	354
Street Lighting Connections	10,623	6,163,072	18,186	6,163,083	18,186
<b>Total</b>	<b>43,543</b>	<b>715,307,971</b>	<b>1,076,794</b>	<b>394,455,509</b>	<b>972,750</b>

LRAMVA Balance per IndEco 2013 Report			
Rate Class	Billing Unit	Balance	LRAMVA Rate Rider
Residential	kWh	\$21,577.30	\$0.0001
General Service <50	kWh	\$49,157.77	\$0.0006
General Service >50	kW	\$23,505.03	\$0.0340
Intermediate	kW	\$8,996.69	\$0.0323
Intermediate w/Self Generation	kW	\$4,246.67	\$0.0483
Unmetered Scattered Load Connections	kWh		
Sentinel Lighting Connections	kW		
Street Lighting Connections	kW		
<b>Total</b>		<b>\$107,483.46</b>	

Entegrus Powerlines Inc.

2015 IRM [EB-2014-0064]: SMP LRAMVA & LRAM Calculation

Billing Determinants [RRR 2.1.5]					
Rate Class	Customer Numbers	Total kWh	Total kW	Non-RPP kWh	Non-RPP kW
Residential	6,505	58,964,339	-	6,769,443	-
General Service <50	663	18,380,349	-	2,745,076	-
General Service >50	97	94,846,331	265,664	92,152,644	242,471
Large Use	1	32,247,068	67,914	32,247,068	67,914
Unmetered Scattered Load Connections	52	323,846	-	85,116	-
Sentinel Lighting Connections	52	44,509	126	7,442	43
Street Lighting Connections	2,369	1,458,104	4,316	1,458,103	4,316
<b>Total</b>	<b>9,739</b>	<b>206,264,546</b>	<b>338,020</b>	<b>135,464,892</b>	<b>314,744</b>

LRAMVA, Per IndEco Report, Page 9			
Rate Class	Billing Unit	Balance	LRAMVA Rate Rider
Residential	kWh	\$9,245.78	\$0.0002
General Service <50	kWh	\$2,967.47	\$0.0002
General Service >50	kW	\$4,217.64	\$0.0159
Large Use	kW	\$40.92	\$0.0006
Unmetered Scattered Load Connections	kWh		
Sentinel Lighting Connections	kW		
Street Lighting Connections	kW		
<b>Total</b>		<b>\$16,471.80</b>	

LRAM - Page 11			
Rate Class	Billing Unit	Balance	LRAM Rate Rider
Residential	kWh	\$14,156.56	\$0.0002
General Service <50	kWh	\$4,202.10	\$0.0002
General Service >50	kW	\$629.59	\$0.0024
Large Use	kW		
Unmetered Scattered Load Connections	kWh		
Sentinel Lighting Connections	kW		
Street Lighting Connections	kW		
<b>Total</b>		<b>\$18,988.25</b>	