

Ontario Energy Board



Report of the Ontario Energy Board

**Updated Policy for the Lost Revenue Adjustment Mechanism
Calculation: Lost Revenues and Peak Demand Savings from
Conservation and Demand Management Programs**

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1 Executive Summary

This Report outlines the Ontario Energy Board's (OEB) policy with respect to the inclusion of peak demand (kW) savings into the Lost Revenue Adjustment Mechanism Variance Account - LRAMVA calculation for demand-billed customers.

In response to a memorandum from the Independent Electricity System Operator (IESO) that discussed peak demand (kW) savings and how these savings should be treated for the purpose of calculating lost revenues, the OEB held an open stakeholder session. As part of the stakeholder session OEB staff sought input and advice from utilities, intervenors and consultants on how to incorporate the CDM results provide by IESO into the OEB's current policy on the calculation of the LRAMVA for demand-billed customers. In this Report the OEB has determined that:

- Distributors should multiply the peak demand (kW) savings amounts from energy efficiency programs included in the IESO Final Results by the number of months the IESO has indicated those savings take place throughout the year (generally all 12 months).
- No peak demand (kW) savings from Demand Response (DR) programs should generally be included within the LRAMVA calculation. A distributor that wants to present empirical evidence to support DR savings in the LRAMVA can only do so as part of a cost of service or Custom IR application
- Distributors can use the information included within the IESO-approved 2015-2020 CDM plan when developing its CDM manual adjustment for load forecast purposes.

The changes adopted within this Report will be reflected in the Filing Requirements for Distribution Rate Applications (for both Cost of Service and Incentive rate-setting applications) and the CDM Guidelines.

2 Background

For Conservation and Demand Management (CDM) programs delivered between 2011 and 2014, the Ontario Energy Board (OEB) established Account 1568 (Lost Revenue Adjustment Variance Account - LRAMVA) to capture the variance between the CDM adjustment to a distributor's OEB-approved load forecast and the actual CDM results at the customer rate class level. The details of the LRAMVA Account 1568 are outlined in the OEB's [Guidelines for Electricity Distributor Conservation and Demand Management](#) issued April 26, 2012 (EB-2012-0003).

As part of the OEB's [CDM Requirement Guidelines for Electricity Distributors](#), issued December 19, 2014 (EB-2014-0278), the OEB reiterated that distributors should rely on the LRAMVA Account 1568 guidance included both within the 2012 CDM Guidelines and the Chapter 2 and Chapter 3 Filing Requirements for Electricity Distribution Rate Applications. This was in response to the [Conservation Directive](#) issued to the OEB on March 26, 2014 which states at Section 3(iii) that:

Lost revenues that result from Province-Wide Distributor CDM Programs or Local Distributor CDM Programs should not act as a disincentive to Distributors in meeting their CDM Requirement.

In support of their LRAMVA claims, distributors must provide, among other requirements, the energy (kWh) and peak demand (kW) savings applicable to each rate class for each CDM program undertaken in a given year. These savings should be supported by the most recent final evaluation report for the distributor as provided by the Independent Electricity System Operator (IESO). Included within the IESO's Final CDM Results report are both energy (kWh) and peak demand (kW) savings which have resulted from CDM programs implemented by the distributor.

An issue was identified during the 2016 electricity rate application review process related to peak demand (kW) savings for demand-billed rate classes. Specifically, the issue revolved around the calculation of lost revenues related to peak demand (kW) savings from both energy efficiency and demand response CDM programs.

In [a memorandum to OEB staff](#) dated February 24, 2016, the IESO indicated that demand savings from energy efficiency programs are based on the average monthly demand savings for June, July and August. The IESO indicated that there may be demand reductions in other months, or persistence into other years from energy efficiency programs.

Further, the IESO clarified its definition of verified demand savings and specifically noted that the IESO's methodology "makes no attempt to verify the impact that a demand response event may have on a customer's demand for the purposes of billing for distribution service, even in months where the demand response program was activated."

In response to this issue being identified, the OEB initiated a process to review the current LRAMVA policy and make any necessary adjustments. Through a letter dated March 3, 2016, the OEB invited stakeholders to an open meeting to gather input on the approach to recording the revenue impact of peak demand (kW) savings in the LRAMVA. On March 31, 2016, the OEB held a stakeholder meeting with representatives from electricity distributors and intervenors to discuss this topic.

3 Summary of Stakeholder Meeting

The OEB's March 31, 2016 stakeholder session was attended by representatives from utilities, consultants and intervenors. The list below includes those who participated.

OEB Staff	Hydro One Networks Inc.
IESO Staff	Hydro One Brampton Networks Inc.
BLG	Hydro Ottawa Ltd.
Centre Wellington Hydro Ltd.	IndEco Strategic Consulting Inc.
Consumers Council of Canada	London Property Management Association
Cornerstone Hydro Electric Concepts	Oakville Hydro Electricity Distribution Inc.
Econalysis Consulting Services	PowerStream Inc.
Enersource Hydro Mississauga Inc.	School Energy Coalition
ENTEGRUS	St. Thomas Energy Inc.
Guelph Hydro Electric Systems Inc.	Utilities Kingston
Horizon Utilities Corporation	Veridian Connections Inc.

3.1 Demand Savings from Energy Efficiency Programs

In an effort to provide additional information, the IESO provided the manner in which peak demand savings from energy efficiency programs are realized throughout the year (i.e., number of months the savings are applicable).

The IESO confirmed that demand savings from energy efficiency programs (all programs other than demand response programs which reduce overall demand on the system at peak periods) were evaluated in accordance with the IESO's Evaluation, Measurement & Verification (EM&V) Protocols.¹ A monthly average savings figure is included by the IESO in the Final CDM Results that are provided to all distributors. It is this value which is relied upon by distributors when calculating lost revenues.

The IESO indicated that the demand savings from energy efficiency programs shown in the Final CDM Results should generally be multiplied by twelve (12) months to represent the demand savings the distributor has experienced over the entire year (see Table 1). In the case of the Building Commissioning initiative, the demand savings provided in the Final CDM Results should only be multiplied by three (3) as these savings are related to space cooling and do not occur throughout the full year, but only during the summer months, typically.

¹ The IESO EM&V Protocols quantifies those demand savings at the peak period (weekdays, excluding holidays, from 1:00 p.m. to 7:00 p.m. in June, July and August).

Table 1 below lists all IESO programs that are available to demand-billed customers and how the peak demand savings are applicable throughout the year.

Table 1 – Demand Savings from Energy Efficiency Programs

Initiative	Application of Demand Savings - Months		
	Months	Number of Months	Notes
Business Program			
Retrofit	All	12	
Direct Install Lighting	All	12	
Building Commissioning*	Jun, Jul, Aug	3	
New Construction	All	12	
Energy Audit	All	12	
Small Commercial Demand Response	N/A	0	DR programs are not energy efficiency programs. They aim to reduce usage only at peak times.
Small Commercial Demand Response (IHD)	N/A	0	
Demand Response 3	N/A	0	
Industrial Program			
Process & System Upgrades	All	12	
Monitoring & Targeting	All	12	
Energy Manager	All	12	
Retrofit	All	12	
Demand Response 3	N/A	0	See DR note above
Aboriginal Program			
Direct Install Lighting	All	12	

* Peak demand savings from the Building Commissioning are cooling related and only occur during the summer.

There are also peak demand (kW) savings that result from the CDM programs delivered to residential customers. These peak demand (kW) savings are generally realized throughout the year; however, since residential customers are billed based on their energy usage (kWh), and not based on demand (kW), there are no lost revenues associated with the demand savings from residential energy efficiency programs.

Stakeholders generally agreed to the approach of multiplying the peak demand (kW) savings included within the IESO Final Results by the applicable monthly multiplier value included in Table 1 in order to determine the appropriate peak demand (kW) value for the LRAMVA calculation.

The OEB agrees with the suggested approach for calculating lost revenues related to peak demand savings from energy efficiency programs as outlined above. The

information provided by the IESO should be relied upon by distributors when calculating the applicable peak demand (kW) savings and resulting lost revenues from energy efficiency programs delivered to demand-billed customers. Should a distributor wish to propose an alternative approach, the onus would be fully on the distributor to support its proposal. Distributors should limit proposals made as part of an IRM application to mechanistic calculations. If a distributor proposes an alternative approach, it should be made as part of a Cost of Service or Custom IR application.

The OEB will make revisions to both the Filing Requirements for Distribution Rate Applications (for both Cost of Service and IRM applications) and the CDM Guidelines to address this issue.

3.2 Demand Savings from Demand Response (DR) Programs

In advance of the stakeholder meeting, the IESO also provided Table 2 below. Table 2 shows all activation dates for the Demand Response 3 program over the course of the 2011-2014 CDM period.

Table 2 – 2011-2014 Demand Response 3 Program Activation Dates

Year	Event Date	Region
2014	None	Province-Wide
2013	July 9, 2013	Activated in Toronto only - weather related (flooding of a substation)
	July 10, 2013	
	July 18, 2013	Province-Wide
2012	July 20, 2012	Province-Wide
	July 21, 2012	
	July 17, 2012	
	September 5, 2012	
	September 6, 2012	
2011	May 31, 2011	Province-Wide
	June 6, 2011	
	June 7, 2011	
	June 8, 2011	
	July 11, 2011	
	July 21, 2011	
	July 22, 2011	
	August 2, 2011	
	August 4, 2011	
	November 21, 2011	
	November 22, 2011	

As shown in Table 2 above, there were a total of 17 province-wide demand response events (19 in Toronto) over the course of the 2011-2014 period. The IESO confirmed that distributors were provided credit for aggregated demand savings from demand response programs based on the future projected, or expected demand response event demand savings (i.e., ex-ante savings) at the system level, as opposed to the actual demand savings that were experienced (i.e. ex-post savings) at the individual customer level from the demand response events shown in Table 2.

Lost revenues only result when an individual customer's monthly peak demand is reduced. Since the IESO's evaluations were done at the system level and did not consider the impacts of demand response events on an individual customer's peak demand, the IESO indicated that it could not confirm that a distributor incurred any lost revenues as the result of a demand response event.

It was the general consensus amongst stakeholders that, based on the information provided by the IESO, there are no lost revenues from demand response programs in most instances. The monthly peak demand of a demand-billed customer used for billing purposes may not correspond with the demand response event; even if it did, the lost revenues would only be related to a difference between the customer's peak demand absent the demand response event and the next highest peak demand for the customer in that month. Further, stakeholders generally agreed that, in the event a distributor sought recovery of lost revenues related to demand response programs, the distributor would be expected to provide the supporting information (e.g., customer billing analysis, evidence that demand response events corresponded to customer peak periods and actual lost revenues, third party verification, etc.) and that these requests would be decided on a case-by-case basis.

The OEB agrees with the suggested approach to remove any peak demand savings from demand response programs from the LRAMVA calculation as outlined above. Since the IESO's evaluations cannot confirm the nature of the demand savings relative to the billing period for demand-billed customers, it is not appropriate that distributors be credited with lost revenues from demand response programs, except for those situations where the distributor can explicitly demonstrate revenue impacts.

The 2012 CDM Guidelines (EB-2012-0003) state at Section 13.4 that, at a minimum, distributors must apply for disposition of the balance in the LRAMVA at the time of their Cost of Service applications. However, distributors may apply for the disposition of the balance in the LRAMVA on an annual basis, as part of their IRM rate application if the

balance is deemed significant by the applicant.² In the event that a distributor wishes to include a request for lost revenues from demand response programs as part of the LRAMVA, it must do so as part of a Cost of Service application as the IRM process is intended to be mechanistic in nature.

The OEB will make revisions to both the Filing Requirements for Distribution Rate Applications (for both Cost of Service and IRM applications) and the CDM Guidelines to address this issue.

3.3 Impact on CDM Adjustment for Load Forecasting Purposes and LRAMVA Threshold

A related issue to that of the LRAMVA calculation is the manual CDM adjustment to a distributor's load forecast that is used to set rates. This adjustment becomes the threshold value to use in the LRAMVA calculation. Included within the Chapter 2 and Chapter 3 Filing Requirements for Electricity Distributor Rate Applications is direction related to how distributors are expected to account for estimates of future CDM activity. Details relating to the CDM adjustment are outlined in Appendix 2-I of the Filing Requirements. This adjustment is intended to allow distributors to include all anticipated CDM activity at the rate setting stage in order for distributors to recover the appropriate level of revenues from the outset.

Further, as part of the Filing Requirements, the OEB has also provided direction related to how distributors should develop the LRAMVA threshold value. The LRAMVA threshold is used as part of the lost revenue calculation and is needed for entries into Account 1568 – LRAMVA. The LRAMVA threshold value is the anticipated lost revenue amount (based on anticipated CDM savings) based on what is reflected in the underlying load forecast (i.e., used for billing determinants, as applicable) when the distributor has rebased rates through a cost of service (or Custom IR) application. This value is compared with actual lost revenues (based on actual CDM savings) to generate the final LRAMVA amount. This threshold remains until the distributor next rebases.

It was the general consensus amongst stakeholders that although the application of peak demand (kW) savings is appropriately modified for the LRAMVA calculation, since the CDM adjustment to a distributor's load forecast is developed based on estimated energy (kWh) savings from CDM programs, the manner to develop both the CDM adjustment to the load forecast and the LRAMVA threshold value remained relevant and appropriate. As such, no major changes were proposed. It was suggested however,

² As stated in the 2012 CDM Guidelines, the LRAMVA shall not be included in the pre-set disposition threshold calculation in determining materiality for disposition for Group 1 accounts as per the July 31, 2009 Report of the Board: *Electricity Distributors' Deferral and Variance Account Initiative* (EB-2008-0046).

that if possible, distributors incorporate more detail as part of the manual CDM adjustment and rely on the detailed information included in the distributor's IESO-approved 2015-2020 CDM Plan.

The OEB agrees that, in the event a distributor wishes to include more precise and detailed information when developing their manual CDM adjustment, the distributor should rely on the information included within the IESO-approved 2015-2020 CDM plan related to estimated future savings. At a minimum, distributors should continue to rely on Appendix 2-I of the Filing Requirements when calculating the manual CDM adjustment to the load forecast and LRAMVA threshold value. Appendix 2-I has been structured as the default, generic tool to be used by distributors in developing their manual CDM adjustment. If a distributor includes more detailed information from its 2015-2020 CDM Plan, the distributor will need to make the appropriate modifications to adapt Appendix 2-I for its circumstances. The OEB will make the appropriate revisions to the Filing Requirements for Distribution Rate Applications (for Cost of Service applications) to indicate that distributors can incorporate more detail in the proposed CDM adjustment to its load forecast and the related LRAMVA threshold.

4 Conclusion and Next Steps

Distributors should use the updated guidance related to the LRAMVA calculation that is outlined above immediately and in the preparation of any rate application that includes a request for disposition of Account 1568 – LRAMVA. This includes those distributors' whose request to dispose of Account 1568 – LRAMVA as part of a 2016 rate application was deferred.

Filing requirements and supporting documentation, including the CDM Guidelines, will be updated to reflect the updated LRAMVA calculation.