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## **OEB Staff Discussion Paper**

### Updating the Conservation and Demand Management Guidelines for Electricity Distributors

**EB-2021-0106**

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**August 5, 2021**



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# 1 Background and Overview

## 1.1 Provincial Conservation and Demand Management Frameworks

In recent years, provincial electricity conservation and demand management (CDM) activity has been implemented primarily through CDM frameworks established by directives from the Minister of Energy (or its predecessor ministry) to the Independent Electricity System Operator (IESO). CDM activity under these frameworks is funded through the Global Adjustment charge, paid for by all Ontario electricity ratepayers, and not through distribution rates. As shown below in Table 1, the role of distributors in these frameworks has varied.

On September 30, 2020, the Minister of Energy, Northern Development and Mines issued a [directive](#) to the IESO on the CDM Framework for the 2021-2024 period (the 2021-2024 CDM Framework). On January 4, 2021, the IESO released its 2021-2024 Conservation and Demand Management Framework Program Plan (the [2021-2024 CDM Plan](#)), which provides an overview of the CDM programs to be delivered by the IESO in response to the Minister's directive.

Under the 2021-2024 CDM Framework, CDM program funding, design, and delivery is centralized under the IESO. Programs will focus on meeting electricity system needs, including through provincial peak demand reductions and targeted approaches to address regional and local system needs. The Minister's directive states that programs will be targeted to those who need them most, including commercial, industrial, institutional and on-reserve First Nations consumers, as well as low-income and income-eligible consumers. The 2021-2024 CDM Plan provides a breakdown of program budgets and energy savings and peak demand targets expected to be achieved through the four-year framework.

The 2021-2024 CDM Framework follows two previous CDM Frameworks. The Conservation First Framework (CFF) was originally intended to run from January 1, 2015 to December 31, 2020, but was revoked as a result of the Ministry of Energy, Northern Development and Mines' [directive](#) of March 20, 2019. An Interim Framework was established that took effect from April 1, 2019 to December 31, 2020.

The three frameworks and the role of distributors in each framework are summarized in Table 1.

**Table 1: Provincial CDM Frameworks**

<b>CDM Framework</b>	<b>Dates In Effect</b>	<b>Distributor Role and Funding</b>
Conservation First Framework (CFF)	January 1, 2015 to March 31, 2019 (originally intended to run from January 1, 2015 to December 31, 2020) <sup>1</sup>	Significant role in program administration and delivery, including delivery of province-wide programs, and opportunities to deliver local programs. Distributor costs for these CDM activities funded through CFF
Interim Framework	April 1, 2019 to December 31, 2020	Most programs centralized under the IESO (no Interim Framework funding to support centralized programs available for distributors), with limited funds available for distributors to apply to design and deliver cost-effective local programs through Local Program Fund that are not duplicative of IESO programs
2021-2024 CDM Framework	January 1, 2021 to December 31, 2024	Programs centralized under the IESO, no 2021-2024 CDM Framework funding for distributors, opportunities for some distributors to partner with the IESO in Local Initiatives Program (see chapter 3 of this discussion paper)

## 1.2 OEB Conservation and Demand Management Guidelines

Over the years, the OEB has issued several sets of CDM Guidelines to provide guidance to electricity distributors regarding their role in CDM activities, addressing the

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<sup>1</sup> While new program activity under the CFF ceased as of March 31, 2019, projects initiated under the CFF prior to this date may come into service at a later date. The wind-down period was extended until June 30, 2021 due to the COVID-19 outbreak by [Ministerial directive](#), and an additional extension to December 31, 2021 was made through a second [directive](#). In such case, savings are attributable to the CFF.

interaction with the applicable provincial CDM framework, and providing guidance on how to apply for rate-funded CDM activities outside the provincial CDM framework.

The OEB's current Conservation and Demand Management Requirement Guidelines for Electricity Distributors (the [2015 CDM Guidelines](#)), were originally issued on December 19, 2014,<sup>2</sup> and were established to complement the CFF, in addition to information on how to apply for rate-funded CDM activities.

Elements of the 2015 CDM Guidelines relevant to distribution rate applications are also incorporated into Chapters 2, 3, and 5 of the OEB's Filing Requirements for Electricity Distribution Rate Applications (the [Filing Requirements](#)). The Filing Requirements are updated on an annual basis. Minor updates have been made to the Filing Requirements in recent years to account for the revocation of the CFF.

Updated CDM Guidelines would be intended to provide policy direction regarding the role of electricity distributors in CDM activities that take into account the new 2021-2024 CDM Framework, as well as other relevant OEB initiatives.

OEB staff proposes that the Updated CDM Guidelines should provide updated guidance on the following topics:

- How to apply for distribution-rate funded CDM activities to defer infrastructure, and the role of CDM in system planning
- Role of distributors in the Local Initiatives Program
- Distributor staffing and ancillary costs for CDM
- Impact of CDM on distributor revenues, including lost revenue adjustment
- CDM/DSM (Demand-Side Management) co-ordination

The remaining chapters of this discussion paper provide background on each of these topics, followed by OEB staff proposals related to addressing each topic in the Updated CDM Guidelines. A summary of OEB staff proposals is provided in the final chapter.

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<sup>2</sup> Minor changes to the 2015 CDM Guidelines were made on August 11, 2016.

## 2 Distribution rate-funded CDM activities and role of CDM in system planning

### 2.1 Background

In the 2015 CDM Guidelines (section 4.1), the OEB established a policy that allows electricity distributors to seek distribution rate funding for CDM activities, for the purposes of avoiding or deferring infrastructure projects.

Chapter 5 of the Filing Requirements incorporates the OEB's expectations for distributors regarding consideration of distribution rate-funded CDM activities to defer distribution infrastructure within the distribution system planning process. Distributors must explain the proposed program in the context of the distributor's five-year Distribution System Plan.

Chapter 5 describes the OEB's evaluation criteria for material distribution system investments, and the supporting evidence that distributors should file for proposed projects. This includes several evidentiary requirements that are specific to CDM activities - an assessment of the project benefits to customers relative to cost impacts, the intended duration of the CDM activity and the length of time by which infrastructure investments would be deferred, and a description of how advanced technology has been incorporated (if applicable).<sup>3</sup>

Distributors have made limited use of this ability to seek distribution rate funding for CDM activities. One relevant example is Toronto Hydro-Electric System's inclusion of both battery storage and local demand response solutions as part of its 2020-2024 Custom Incentive Rate-setting application, to defer infrastructure investments at specific transformer stations facing capacity constraints.<sup>4</sup> Spending on these initiatives was approved by the OEB as part of its decision in this proceeding.<sup>5</sup>

Under previous conservation frameworks (both the CFF and the Interim Framework), opportunities existed for distributors to seek funding for local CDM programs from the IESO. Under the 2021-2024 CDM Framework, this option no longer exists (however, the IESO will deliver a Local Initiatives Program, described in chapter 3 of this discussion

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<sup>3</sup> Section 5.4.3.2 in June 24, 2021 version of Chapter 5 of Filing Requirements.

<sup>4</sup> See Toronto Hydro's [Distribution System Plan 2020-2024](#), filed as part of this proceeding (EB-2018-0165). Section E.7.4.3.3 describes the demand response program and how it addresses a distribution system need, and section E.7.4.5.3 compares the demand response program to conventional station capacity expansion, including a cost-effectiveness comparison.

<sup>5</sup> Decision and Order, EB-2018-0165, December 19, 2019

paper, that will only apply to specific target areas). Therefore, there may be increased interest from distributors in seeking distribution rate funding for CDM activities.

Also of relevance to considering the role of CDM activities in electricity system planning is the OEB's [Decision and Order](#) regarding Integrated Resource Planning (IRP) for Enbridge Gas.<sup>6</sup> This Decision and Order established an IRP Framework for Enbridge Gas that provides direction on the OEB's requirements as Enbridge Gas considers alternatives to traditional pipeline infrastructure, including demand-side alternatives such as geotargeted energy efficiency and demand response, to meet its system needs. The IRP Framework addresses many of the same topics relevant to the role of CDM in electricity distribution system planning, such as needs identification, comparison and evaluation of alternatives, and cost recovery.

The 2015 CDM Guidelines provide additional guidance on distribution-rate funded CDM activities in the following areas:

**Types of CDM activities:** The 2015 CDM Guidelines describe four specific types of activities for which distributors may apply to the OEB for funding:

- CDM programs that target distributor-specific peak demand (kilowatt) reductions to address a local constraint of the distribution system.
- Demand response programs whose primary purpose is peak demand reduction in order to defer capital investment for specific distribution infrastructure. These programs are expected to save peak demand or enhance system integrity and reliability in a specific area of the distribution system.
- Programs to improve the efficiency of the distribution system and reduce distribution losses.
- Energy storage programs whose primary purpose is to defer specific capital spending for the distribution system.

**Timing of applications:** The 2015 CDM Guidelines note that applications for CDM activities can be filed at any time, for the purpose of deferring the capital investment for specific distribution infrastructure.

**Cost recovery:** The 2015 CDM Guidelines indicate that any application for CDM funding to defer infrastructure must include a consideration of the projected effects to the distribution system on a long-term basis and the forecast expenditures. Beyond this, specifics of cost recovery for distribution rate funded CDM activities are not addressed

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<sup>6</sup> Decision and Order, Integrated Resource Planning Proposal (EB-2020-0091), July 22, 2021

in the 2015 CDM Guidelines.

In 2019, the OEB initiated a [consultation](#) on utility remuneration to identify how to remunerate utilities in ways that make them indifferent to traditional or innovative solutions, better supports their pursuit of least cost solutions, strengthens their focus on long-term value and requires them to reflect the impact of sector evolution in their system planning and operations. On March 23, 2021, the OEB issued a [letter](#) combining this consultation and the “Responding to Distributed Energy Resources” consultation under a new name (Framework for Energy Innovation: Distributed Resources and Utility Incentives). On May 10, 2021, the OEB issued a [letter](#) confirming the near-term workstreams for the Framework for Energy Innovation (FEI). One workstream (DER Usage) is intended to investigate and support utilities’ use of distributed energy resources (DERs) they do not own as alternatives to traditional wires solutions to meet distribution needs and will include examining appropriate incentives for distributors to adopt DERs for distribution uses that do not require equity investment by the utility. The letter also indicated the expectation that, among other matters, issues relating to utility remuneration would be considered in subsequent phases of FEI.

**Regional planning:** The 2015 CDM Guidelines note that distribution system plans may incorporate additional CDM initiatives that address regional needs. The OEB endorsed a formalized [regional planning process](#) involving transmitters, distributors, and the IESO that has been implemented across the province, where CDM is considered first among the alternative potential solutions to address a regional need.

The regional planning process has continued to evolve since the 2015 CDM Guidelines were developed. Following the first cycle which addressed all 21 regions, the IESO concluded a review of the process with the issuance of an [IESO Report](#) that included recommendations involving potential regional planning process changes. The OEB and the IESO worked together to determine which organization will take the lead on further assessing each recommendation, as summarized in Table 2 in that report.

On December 10, 2020, the OEB initiated a [consultation](#) to undertake its own Regional Planning Process Review, including consideration of the IESO’s recommendations that the OEB is taking the lead on addressing. The OEB re-constituted the Regional Planning Process Advisory Group (RPPAG) to further assess those recommendations and the RPPAG will recommend implementation by the OEB, if appropriate. One of those under consideration for the purpose of facilitating non-wires alternatives (NWA) solutions is to better address the replacement of major transmission assets at end-of-life by providing a longer-term outlook. The term “non-wires alternatives” could encompass most, if not all, of the types of CDM activities described in the 2015 CDM Guidelines.



The purpose of the recommendation on major transmission assets at end-of-life is to provide an adequate lead time to assess potential NWA solutions as an option to like-for-like wires replacements. As described further below, the RPPAG is also assessing how a better understanding of cost responsibility should be incorporated into the regional planning process to support more informed decision-making in relation to the preferred solutions that are identified, including NWAs that are eligible for cost recovery under the CDM Guidelines.

Other recommendations in the IESO Report that are intended to deal with addressing barriers to implementing NWA solutions in regional planning, such as formalizing the stages of the regional planning process during which NWAs are developed and evaluated, are being led by the IESO.

## **2.2 OEB Staff Proposals**

OEB staff proposes that the Updated CDM Guidelines support an approach to infrastructure planning, at the regional and local levels, that requires consideration of the role of CDM in meeting system needs.

At the local level, OEB staff proposes that the Updated CDM Guidelines go farther than the 2015 CDM Guidelines, by requiring distributors to incorporate consideration of CDM activities into their distribution system planning process. Key steps distributors should be encouraged to take to meet this objective include:

- When assessing system needs, providing sufficient lead time to enable consideration of non-traditional solutions, including CDM activities.
- Defining the types of system needs where CDM activities have the greatest potential to meet the system need.
- Ensuring a process is in place to consider CDM as a potential solution for these types of system needs and to compare CDM to traditional wires solutions.

These elements are already incorporated or under consideration in both regional electricity planning and Enbridge Gas's natural gas system planning, but are not specifically addressed for electricity distribution system planning.

The IESO's Local Initiatives Program will provide some funding from the 2021-2024 CDM Framework (recovered through the Global Adjustment charge) for CDM activities to meet needs identified through the regional planning process in specific target areas, but is not intended to comprehensively fund and address all local distribution system needs where CDM could be a possible solution. Therefore, OEB staff proposes that the Updated CDM Guidelines continue to enable distributors to seek distribution rate

funding for CDM activities for the purpose of meeting identified distribution system needs.

OEB staff proposes that the Updated CDM Guidelines indicate that CDM activities that would only benefit participating customers (e.g., by providing incentives for energy-efficient equipment) without addressing a distribution system need are not eligible for distribution rate funding. The 2021-2024 CDM Framework directive notes that, under the Interim Framework, electricity CDM programs were refocused to those who need them most, and that under the 2021-2024 CDM Framework, CDM programs delivered by the IESO will continue to be targeted to those who need them the most, including commercial, industrial, institutional and on-reserve First Nations consumers, as well as low-income and income-eligible consumers. Therefore, in OEB staff's view, additional distribution rate funding for CDM activities to benefit participating customers is not necessary, and distribution rate funding should only be used to deliver CDM activities that address system needs.

The Updated CDM Guidelines should indicate that distributors would be expected to provide evidence as to why the CDM activity is the preferred approach to meeting a system need. This is consistent with the guidance for "Material Investments" in Chapter 5 of the Filing Requirements regarding the OEB's investment evaluation criteria and evidentiary requirements, including the requirements specific to distribution rate-funded CDM activities. OEB staff does not propose any specific changes to this requirement.

Additional staff proposals are provided below.

**Types of CDM activities:** The four categories of CDM activities described in section 4.1 of the 2015 CDM Guidelines remain relevant examples of the types of activities that distributors might pursue to meet system needs. However, unlike in the 2015 Guidelines, OEB staff proposes that the Updated CDM Guidelines not exhaustively list the types of CDM activities that could be considered for distribution rate funding, to provide latitude for new and innovative categories of solutions.

**Timing of applications:** OEB staff proposes that the Updated CDM Guidelines strongly encourage distributors to make funding requests for CDM activities as part of rebasing (cost of service or Custom IR) rate applications,<sup>7</sup> where possible. The cost of service application process and evidentiary requirements enable the OEB to assess the proposed CDM activity and funding request in the context of the system needs in the

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<sup>7</sup> The term "cost of service" is used throughout this document, as the OEB has specific Filing Requirements for cost of service rate applications addressing CDM. Rate applications by utilities using the Custom IR rate-setting methodology are expected to be informed by the cost of service filing requirements.

distributor's distribution system plan, and to incorporate forecast impacts of CDM activity on the distributor's revenue requirement and load forecast (discussed further in chapter 5 of this discussion paper).

However, OEB staff proposes that the Updated CDM guidelines preserve the option for distributors to submit applications between cost of service rate applications, if necessary. An example of a potential opportunity that may arise between cost of service applications is for a distributor to procure incremental resources to meet local distribution system needs through the IESO's Local Initiatives Program, where the timing of this procurement may not be within the distributor's control.

**Cost recovery:** For CDM activities included as part of cost of service rate applications, the Updated CDM Guidelines should indicate that the cost of any approved CDM activity would be recovered through the updated base rates set in that proceeding. For applications filed between cost of service rate applications, the updated CDM Guidelines should indicate that distributors are requested to propose an approach for cost recovery (e.g., rate rider, use of a deferral account, Incremental Capital Module treatment if appropriate for projects with a large capital component, etc.), and to identify whether any funding to address the identified system need is already included in existing rates. This will assist the OEB in determining, on a case-by-case basis, whether the proposed spending is incremental and should be eligible for cost recovery.

Pending additional learnings from the FEI initiative, OEB staff proposes that the approach to utility remuneration be the same for CDM activities as it is for other distribution system expenditures. The Updated CDM guidelines should indicate that the treatment of distributor spending on CDM activities as capital expenditures or operating expenses should be in accordance with a distributor's capitalization policy.<sup>8</sup> Proposed CDM activities could therefore potentially include a capital expenditure component, if consistent with a distributor's capitalization policy.

OEB staff proposes that specific performance incentives to distributors for CDM activities not be included as part of the Updated CDM Guidelines at this time. The Updated CDM Guidelines could potentially provide some flexibility, by indicating that, should a distributor wish to propose a results-based approach to the recovery of revenues associated with CDM expenditures, an applicant should file an appropriately detailed proposal regarding performance measures, targets and its approach to revenue adjustments.

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<sup>8</sup> Chapter 2 of the Filing Requirements requires distributors to file their capitalization policy with the OEB as part of cost of service applications.

**Regional planning:** OEB staff proposes that the Updated CDM Guidelines preserve the ability for distributors to incorporate CDM activities within their distribution system plans that are intended to address (in whole or in part) regional needs. Distributors seeking distribution rate funding for CDM activities should be required to identify whether the proposed CDM activity is intended to address a broader system need identified through the regional planning process. If so, the distributor should provide supporting details regarding any overlap or interaction between the proposed CDM activity and other solutions identified in the regional planning process, including any IESO CDM procurements for local or regional initiatives such as the Local Initiatives Program, which is further discussed in chapter 3 of this discussion paper.

The OEB should incorporate any additional guidance that arises from the ongoing Regional Planning Process Review, including any actions by the IESO to address barriers to non-wires alternatives, into the CDM Guidelines when appropriate, which may be at a later date than the initial issuance of the Updated CDM Guidelines. One specific item under consideration in the Regional Planning Process Review that OEB staff believes will be particularly relevant is incorporating a better understanding of cost responsibility (between distributors, transmitters, and possibly the IESO) related to the optimal solutions (including non-wires solutions such as CDM) that address needs identified in the regional planning process. A better understanding of cost responsibility related to non-wires solutions identified through the regional planning process is expected to support more informed decision-making on the preferred solutions, including CDM activities that distributors propose to undertake. The FEI initiative is also expected to play a key role in providing clarity on who is responsible for the costs where a non-wires solution addresses a regional need and is not fully owned by a distributor.

## 3 Role of Distributors in the Local Initiatives Program

### 3.1 Background

The IESO's 2021-2024 CDM Plan includes a budget of \$65.6 million over the four-year period for the Local Initiatives Program (LIP), which will deliver CDM savings in targeted areas of the province, as identified through the regional planning process. This funding for the LIP is recovered from all Ontario electricity ratepayers through the Global Adjustment charge.

The objectives of the LIP are to:

- Deliver 57 MW of demand savings and 230 GWh of energy savings over four years.
- Demonstrate the ability to use CDM as a resource to achieve specified demand and/or energy reductions that can help address regional and/or local electricity system constraints.
- Identify how targeted CDM can be used as a resource in the service territories of local utilities to address distribution system needs.
- Be cost effective and not duplicative of current province-wide CDM programs.

The LIP is expected to utilize competitive procurements to acquire CDM resources, which could use a similar approach to the [York Region Non Wires Alternative Demonstration Project](#).

The IESO announced that the first phase of this program will target four areas:

- Richview South area in Toronto
- York Region
- Ottawa
- Belle River area in Windsor-Essex

The IESO indicated that it sees value for distributors in the target areas playing a partnership role in the LIP to support the development and deployment of LIP initiatives. Distributors' customers may be targeted and there is a potential for the LIP to meet local distribution system needs in addition to the regional needs. However, any costs incurred by distributors through this partnership role would not be eligible for funding from the 2021-2024 CDM Framework budget.

In response, the OEB issued a [letter](#) on May 28, 2021 that provided guidance to electricity distributors related to distributor partnership in the LIP and cost recovery.

The OEB established a new LIP Deferral Account to enable distributors to track LIP partnership costs and seek recovery of these costs through distribution rates. The LIP Deferral Account should only be used by distributors that partner with the IESO for the LIP.

The purpose of the LIP Deferral Account is to record costs incurred by a distributor associated with the distributor's participation as a supporting partner to the IESO in the LIP. Eligible distributor costs to be recorded in this account may potentially include activities such as procurement support, providing access to data, supporting evaluation, measurement, & verification activities, and supporting marketing and outreach activities, but shall **not** include the cost of resources procured through the LIP. Upon disposition of the account, the distributor must demonstrate that any costs have been prudently incurred and are related to a LIP partnership with the IESO.

The distributor and the IESO are expected to reach agreement on the responsibilities and projected costs to be borne by each party, to avoid duplication and to ensure proposed distributor activities support the objectives of the LIP. Distributors will be expected to demonstrate how their LIP activities will deliver value to their customers, at the time a distributor applies for disposition of any balance in the deferral account.

The resources that the IESO is procuring through the LIP are for the purpose of addressing needs identified through the regional planning process (chapter 2 of this discussion paper) and are not intended to specifically meet local distribution system needs. However, there may be alignment between the regional needs and local distribution system needs.

The OEB letter indicated that distributors partnering with the IESO in the LIP could potentially leverage the LIP procurements to procure incremental resources to meet local distribution system needs, including integrating these resources into the distribution system, and apply for distribution rate funding for these activities, for the purpose of avoiding or deferring infrastructure. Any such application would be separate from the costs tracked in the LIP Deferral Account and could be filed with the OEB at any time.

### **3.2 OEB Staff Proposals**

OEB staff does not propose any changes to the approach described in the letter of May 28, 2021 regarding distributor participation and cost recovery in the LIP. The OEB has already indicated that it will review whether the same approach will be used for distributors partnering with IESO in subsequent phases of the LIP, based on the learnings from the first phase.

## 4 DISTRIBUTOR STAFFING COSTS FOR CDM AND SUPPORTING ACTIVITIES

### 4.1 Background

Under the CFF, costs for distributors directly attributable to CFF programs, including staff labour dedicated to these programs, were funded by the IESO through the Global Adjustment charge and were therefore not eligible to be included in the revenue requirement for distributors, as indicated in the Filing Requirements.<sup>9</sup> In the 2021-2024 CDM Framework, the IESO is not funding any CDM costs for distributors.

Several distributors have also received OEB approval to recover costs related to implementation of Green Button, a data standard that can empower households and businesses with access to their utility data and allow them to authorize the automatic, secure transfer of their own data from their utility to applications or third parties. On October 8, 2020, the Ministry of Energy, Northern Development and Mines posted a [regulatory proposal](#) that it is considering requiring Ontario electricity and natural gas distributors to implement Green Button. The regulatory proposal noted that supporting increased conservation and energy efficiency through greater consumer access to energy data is an expected outcome of this initiative. The Ministry of Energy has subsequently indicated that it intends to move forward with a regulation that will require electricity and natural gas distributors to implement Green Button, and the OEB has initiated a consultation to support implementation.<sup>10</sup>

### 4.2 OEB Staff Proposals

OEB staff proposes that the Updated CDM Guidelines indicate that any staffing costs that are specific to a distribution rate-funded CDM activity (chapter 2 of this discussion paper) or to a distributor's partnership in the LIP (chapter 3) would be reviewed as part of the funding request for the CDM activity (preferably in a cost of service application, or in a stand-alone CDM application if necessary), or as part of the application to dispose of eligible costs recorded in a distributor's LIP Deferral Account, respectively.

OEB staff proposes that the Updated CDM Guidelines indicate that, in the absence of LIP partnership activity, distributors should not request funding through distribution rates for dedicated CDM staff to support IESO programs funded under the 2021-2024 CDM Framework. The 2021-2024 CDM Framework Directive is clear that the IESO is responsible for these programs, and also gives the IESO the responsibility of providing

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<sup>9</sup> Section 2.4.6 in June 24, 2021 version of Chapter 2 of Filing Requirements.

<sup>10</sup> OEB Letter, Re: Green Button Implementation (EB-2021-0183), July 5, 2021

residential and other consumers with tools, guidelines and information to build awareness of CDM measures and provide education on energy efficient practices and behaviours. OEB staff acknowledges that distributors may need to carry out minor efforts to make their customers aware of applicable IESO programs, tools, guidelines, and information as part of the key accounts or customer service functions, particularly during the transition to the 2021-2024 CDM Framework. The Updated CDM Guidelines should indicate that such efforts are expected to be limited in nature and non-duplicative of the IESO's activities.

OEB staff also notes that, as part of the distribution system planning function, distributors will likely need to carry out some planning work to assess potential opportunities for distribution rate-funded CDM activities to meet system needs, in advance of proposing specific CDM activities. OEB staff proposes that the Updated CDM Guidelines could indicate that planning costs of this nature would be reviewed by the OEB as part of its overall review of OM&A costs.

OEB staff proposes that the Updated CDM Guidelines clarify that, while supporting increased conservation and energy efficiency through greater consumer access to energy data is an expected outcome of Green Button implementation, any OEB guidance associated with distributor implementation of the Green Button standard and implementation costs would be provided through the Green Button Implementation proceeding, separately from the Updated CDM Guidelines.



## **5 Impact of CDM on Distributor Revenues, Including Lost Revenue Adjustment Mechanism**

### **5.1 General Background**

The topics of how CDM is addressed in load forecasts and the treatment of lost revenue due to CDM activities are closely related. Because CDM can reduce electricity consumption and demand, given that distribution rates include a volumetric or demand-based component, any CDM impacts that are forecast will reduce distribution revenues.

The 2015 CDM Guidelines require distributors to incorporate the expected impact of CDM on electricity consumption and demand in the load and revenue forecasts that support cost of service rate applications for distributors, based on the best available information regarding CDM activity and results.

Even with best available information, actual CDM results will differ from forecast results. If actual CDM results are greater than forecast, distribution revenue will be reduced, and vice versa. To ensure that the potential for distribution revenues to be reduced due to CDM activities did not act as a disincentive to distributors to pursue or promote CDM, the 2015 CDM Guidelines provide a Lost Revenue Adjustment Mechanism (LRAM) to distributors, including a Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) to track any impact of CDM not built into distribution rates. The equivalent of LRAM does not exist for many other external factors that affect electricity consumption and expose distributors to revenue risk due to deviations from forecast.

### **5.2 Treatment of CDM Impacts in Load Forecast**

#### **5.2.1 Background**

Chapter 2 of the Filing Requirements addresses the impact of CDM on load forecasting for cost of service applications.<sup>11</sup> These requirements have been updated since the issuance of the 2015 CDM Guidelines.

Prior to the 2021 rate year, distributors were expected to incorporate both the measured impacts of CDM activity persisting from prior years, as well as the forecast impact of new CDM activity in the bridge and test years, within their load forecast.

For 2021 rate applications, section 2.3.1.3 of the Filing Requirements was amended to reflect the wind-down of CDM activity under the CFF. Distributors were still expected to

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<sup>11</sup> Section 2.3.1.3 in June 24, 2021 version of Chapter 2 of Filing Requirements.

ensure that they fully considered measured CDM impacts persisting from prior years within their load forecasts.<sup>12</sup> For projects delivered after April 2019 as part of the CFF wind-down, the Filing Requirements indicate that a distributor may include these amounts as part of a CDM manual adjustment to the 2021 load forecast, but needs to ensure that sufficient supporting evidence is provided for all estimated CDM savings; the same approach can also be used for any distributor-led CDM activities.

For 2022 cost of service rate applications (where 2021 will be the bridge year), this approach applies to any CFF activity undertaken in 2021 as a result of the Conservation First Framework timelines extension [directives](#), which indicated that in-service deadlines and other time periods for CFF projects could be extended until December 31, 2021 due to delays caused by the COVID-19 emergency, and that any electricity savings or demand reductions achieved during this time period would continue to be attributable to the CFF.

### **5.2.2 OEB Staff Proposals**

As indicated in section 5.3 of this discussion paper, OEB staff proposes that LRAM is not needed as a default approach for CDM activities once the CFF wind-down is complete.

However, OEB staff proposes that the Updated CDM Guidelines indicate that distributors are expected to consider the historical and forecast impacts of CDM activities where sufficient information is available, for the purpose of making the load forecast as accurate as possible.

OEB staff expects that this would likely include the impact of any distribution rate-funded CDM activities and potentially LIP activities, with supporting evidence for forecast savings. In addition, this may include persisting CDM impacts from the CFF and previous CDM Frameworks, and could potentially also include impacts of the Interim Framework and 2021-2024 CDM Framework activities (or other activities such as any federal CDM programs).

How this would be done will depend on a distributor's forecasting approach, but an activity variable for "CDM activity", based on the historical and forecast level of savings from these CDM activities in a given year, could be incorporated into either of the commonly used load forecasting models (multivariate regression and normalized average use per customer). The use of Appendix 2-I (Load Forecast CDM Adjustment

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<sup>12</sup> For results from 2015 to 2017, adjustments should be based on IESO annual verified results; for results from 2018 to April 15, 2019, adjustments should be based on monthly Participation and Cost Reports.

Workform) to calculate a manual CDM load forecast adjustment and a corresponding LRAMVA threshold would no longer be required.

For persisting CDM impacts from the CFF and previous CDM Frameworks, distributors should make sure that results included in the load forecast are consistent with results provided by the IESO.

For Interim Framework and 2021-2024 CDM Framework activities, OEB staff's understanding is that the IESO does not intend to produce savings forecasts (or track actual program results) for these CDM activities at the level of individual distributor service territories. If a distributor proposes to include these CDM activities in its load forecast, the assumptions and supporting evidence for the historical and forecast savings at the distributor level should be provided. The same consideration should also apply to any other CDM activity where results provided by the IESO at the distributor level do not exist.

Distributors should be required to describe how the interaction of CDM activity with other variables used in the load forecast is addressed to avoid double-counting the impact of CDM. This means that there may not be a 1:1 relationship between the amount of savings attributed to CDM and the resulting impact in the load forecast – for example, if a normalized average use per customer model is used, it may already include the impact of persisting CDM savings from previous years.

### **5.3 Lost Revenue Adjustment Mechanism (LRAM)**

#### **5.3.1 Background**

The OEB's approach to lost revenue due to CDM activities has required distributors to first incorporate the forecast impact of CDM into the load forecast used as part of the rate-setting process in cost of service applications (section 5.2 of this discussion paper), and then make use of the LRAMVA to make a retrospective adjustment for the differences between forecast revenue loss attributable to CDM activity embedded in rates and actual revenue loss due to the measured impacts of CDM programs.

Distributors track and dispose of lost revenues through LRAMVA claims that are filed as part of rate applications.<sup>13</sup> The LRAMVA is symmetrical, so that the distributor does not benefit to the detriment of customers if actual lost revenues are less than the forecasted amount.

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<sup>13</sup> Historically, LRAMVA balances have been brought forth for disposition as part of cost-based applications at a minimum, but may also be disposed of during the Incentive Regulation term, if the balance is deemed by the distributor to be significant.

The specifics of the OEB's treatment of LRAM have evolved over the years, to account for changes in CDM programs and frameworks. Detailed guidance on the OEB's current approach to LRAM can be found in the most recent versions of Chapter 2 and Chapter 3 of the Filing Requirements.

### **5.3.1.1. Impact of OEB Rate Design Initiatives on LRAM**

The 2015 CDM Guidelines noted that the OEB was undertaking a policy consultation regarding a new rate design structure for electricity distributors, and that a rate design relying on a fixed charge was being considered. The 2015 CDM Guidelines noted that a fixed charge approach could eventually eliminate the reliance on an LRAM to address any disincentive for distributors to promote CDM. Under a fixed charge approach, distributors would not be at risk of losing revenue due to CDM impacts.

On April 2, 2015, the OEB released its Board [Policy](#) on *A New Distribution Rate Design for Residential Electricity Customers* which stated that electricity distributors will transition to a fully fixed monthly distribution service charge for residential customers. This was implemented over a period of four years, beginning in 2016, meaning that most distributors have now completed their transition to a fixed distribution charge for residential customers.

Base distribution rates for commercial and industrial customers are a mixture of fixed, volumetric, and demand charges, depending on the distributor and customer class. On February 21, 2019, OEB staff released a [report](#): *Rate Design for Commercial and Industrial Electricity Customers: Rates to Support an Evolving Energy Sector*. This report proposed new rate designs that, depending on the customer class, would include some combination of a fixed charge and a demand charge, but no volumetric charge. However, no changes have yet been implemented.

### **5.3.2 OEB Staff Proposals**

OEB staff notes that the implementation of a fixed distribution charge for residential customers has eliminated the issue of distribution revenue impacts from CDM activities for residential customers, but distribution revenue impacts from CDM activities for commercial and industrial customers remain. However, OEB staff proposes that LRAM is not needed in the Updated CDM Guidelines as a default approach for new CDM activities, but could be an option for distribution-rate funded CDM activities and LIP activities only, on an exception basis. LRAM will also be required as a transitional measure for the wind-down of CFF and some Interim Framework activities, for consistency with OEB guidance on LRAM previously provided in the 2015 CDM Guidelines and the Filing Requirements.

Additional details on OEB staff's proposals are provided below.

**CDM activities funded by the IESO through the CFF:** The existing guidance in Chapters 2 and 3 of the Filing Requirements should continue to apply. Under this approach, distributors are eligible to apply for disposition of the LRAMVA for CFF-related activities but must provide sufficient supporting documentation on project savings to support their claim. The Updated CDM Guidelines should indicate that eligibility for LRAM includes CFF-related activities completed after Dec 31, 2020, if undertaken consistent with the Conservation First Framework timelines extension [directive](#). The Updated CDM Guidelines should encourage distributors to dispose of CFF-related LRAMVA balances as soon as possible, and require all CFF-related LRAMVA balances to be brought forward for disposition by the 2023 rate applications at the latest.

**CDM activities funded by the IESO through the Interim Framework:** The Filing Requirements indicate that “other programs delivered by a distributor” are potentially eligible for LRAM. Some distributors may have been involved in program delivery through the Local Program Fund that was part of the Interim Framework. OEB staff proposes that distributors continue to be eligible to apply for disposition of the LRAMVA for Local Program Fund activities. In such cases, distributors would be required to provide sufficient supporting documentation on project savings to support their claim. Distributors should not be eligible for LRAM for other CDM activities funded through the Interim Framework.

**CDM activities funded by the IESO through the 2021-2024 CDM Framework (excluding LIP):** As indicated in section 5.2.2 of this discussion paper, OEB staff proposes that distributors may include the impact of these CDM activities in their load forecast if sufficiently supported by evidence. This should be treated like other forecasting variables, which are not generally subject to an LRAMVA mechanism. The IESO will have responsibility for these activities with no direct role for distributors to pursue or promote CDM, and therefore no disincentive that needs to be removed. Therefore, distributors should not be eligible for LRAM for these CDM activities.

**CDM activities funded by the IESO as part of the LIP, and CDM activities funded through distribution rates:** As indicated in section 5.2.2 of this discussion paper, OEB staff proposes that distributors should generally be expected to incorporate the forecast impact of these CDM activities into their load forecasts. As these CDM activities are being undertaken to address a specific system need, distributors should have a good understanding of the expected program savings, as these savings are being relied upon by distributors and the IESO to defer infrastructure. Therefore, it is expected that distributors will be able to estimate the impact of these activities relatively accurately in

their load forecast, similar to how they are expected to forecast the impact of other system upgrades they undertake. For this reason, OEB staff proposes that LRAM may not be necessary in all cases and should not be the default approach for these activities.

However, OEB staff proposes that distributors should have the option of requesting an LRAMVA (at the time of rebasing or through a stand-alone application) if necessary, so there is no disincentive to these planning options. In this scenario, distributors should be prepared to also demonstrate how they intend to support the tracking of lost revenues and the nature of the documentation that they propose to provide at the time of LRAMVA disposition. If a distributor wishes to seek LRAM for LIP activities initiated between rebasing applications where distributors are not requesting additional rate funding, OEB staff proposes that distributors would need to come forward to the OEB to request an LRAMVA for these activities.

Finally, OEB staff concludes by noting that the final Updated CDM Guidelines will not be binding on any a future panel of Commissioners assessing a distributor's application. The panel could establish variance mechanisms beyond what is proposed here, if there are concerns with the reliability of the CDM information relied upon for establishing a load forecast.

## **6 CDM/DSM CO-ORDINATION**

### **6.1 Background**

The 2015 CDM Guidelines provided guidance to electricity distributors regarding co-ordination and integration with natural gas demand-side management (DSM) programs. Under the 2021-2024 CDM Framework Directive, the IESO is directed to co-ordinate the delivery of CDM programs with entities delivering DSM programs, to the degree reasonably practicable. The IRP Framework also enables, but does not require, Enbridge Gas to work with the IESO or electricity distributors to facilitate electricity-based energy solutions, as an alternative to projects undertaken by Enbridge Gas.

### **6.2 OEB Staff Proposals**

While DSM/CDM co-ordination will primarily be a responsibility for the IESO in the 2021-2024 CDM Framework, there may still be opportunities for co-ordination between natural gas and electricity distributors. The Updated CDM Guidelines should encourage distributors to co-ordinate with entities delivering DSM programs, to the degree reasonably practicable, for any CDM programs they have a role in delivering, with the goal of reducing costs and improving efficiencies.

## 7 SUMMARY OF OEB STAFF PROPOSALS

A summary of key OEB staff proposals for the Updated CDM Guidelines is provided below. This section is only a summary, and the original chapters of this discussion paper should be referred to for complete details of the proposals.

### **Distribution rate-funded CDM activities and role of CDM in system planning**

**(chapter 2):** Distributors should be required to incorporate consideration of CDM activities into their distribution system planning process and consider the role of CDM in meeting system needs. Distributors should be enabled to seek distribution rate funding for a broad range of CDM activities, and should provide evidence as to why the CDM activity is the preferred approach to meeting an identified system need. CDM activities that would only benefit participating customers without addressing a distribution system need should not be eligible for distribution rate funding. Distributors should make funding requests for CDM activities as part of rebasing applications where possible, but may submit stand-alone CDM applications between rebasing applications if necessary. The approach to utility remuneration, including which (if any) costs should be capitalized, should generally be the same for CDM activities as for other distribution system expenditures.

**Role of distributors in Local Initiatives Program (LIP) (chapter 3):** No changes regarding distributors' participation in the LIP and cost recovery are proposed at this time, relative to the approach described in the OEB's letter establishing the LIP Deferral Account.

**Distributor staffing costs for CDM and supporting activities (chapter 4):** Staffing costs specific to a distribution rate-funded CDM activity or a distributor's partnership in the LIP should be reviewed as part of the relevant OEB application. In the absence of LIP activity, distributors should not request funding for dedicated CDM staff to support IESO programs funded under the 2021-2024 CDM Framework. Planning work on the role of CDM in distribution system planning should be reviewed as part of the overall review of OM&A costs in rebasing applications.

### **Impact of CDM on distributor revenues, including Lost Revenue Adjustment**

**Mechanism (LRAM) (chapter 5):** Distributors should incorporate the historical and forecast impacts of CDM activities into their load forecast where sufficient information is available, for the purpose of making the forecast as accurate as possible. LRAM should not be a default approach for new CDM activities, but could be an option for distribution-rate funded CDM activities and LIP activities only, on an exception basis. LRAM will also be required as a transitional measure for the wind-down of CFF and some Interim Framework activities.



**CDM/DSM Co-ordination (chapter 6):** Distributors should be encouraged to co-ordinate with entities delivering DSM where reasonably practicable, with the goal of reducing costs and improving efficiencies.