ONTARIO ENERGY BOARD

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Appendix to Non-Wires Solutions Guidelines: Stream 2 Local eDSM Programs

EB-2025-0156

Ontario

Ontario Energy Board

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This appendix to the Non-Wires Solutions (NWS) Guidelines provides OEB guidance in regards to an approach (Stream 2), supported by the Independent Electricity System Operator (IESO), to review and fund distributor-led electricity demand-side management (eDSM) programs. These programs address a local distribution system need and provide broader electricity system benefits, referred to as Stream 2 local eDSM programs (Programs).[1]

Many aspects of this approach were first described in the IESO-LDC DSM Regulatory Working Group's report, *Proposed Framework for Implementation of Local eDSM*); however, this Appendix incorporates changes and additional guidance relative to the originally proposed framework, that result from the OEB's determinations through its Stream 2 eDSM consultation.[2]

The Overview chapter describes general principles of Stream 2, roles and responsibilities, and a description of the Program life-cycle.

Chapters 1 to 4 then provide filing guidelines for distributor applications to the OEB requesting Program funding through distribution rates.[3] These guidelines are provided to assist distributors in understanding the OEB's expectations for the information that would typically be contained in a Program funding request; however, a distributor may vary from the format provided here as appropriate.

[1] Stream 1 eDSM programs are IESO-led programs funded exclusively through the Global Adjustment, and Stream 3 eDSM programs are distributor-led programs funded exclusively through distribution rates.

[2] EB-2025-0156

[3] The Overview chapter is unnumbered so that the numbering of subsequent chapters and sections (chapters 1-4) that provide filing guidelines can be matched in distributor Program applications that follow the format of these filing guidelines.

OVERVIEW

Introduction

Stream 2 enables electricity distributors to access funding from both the Global Adjustment and distribution rates for distributor-led Programs, in proportion to the benefits provided. It is expected that this will provide more opportunities for distributors to design, fund and deliver cost-effective Programs.

Some key principles of Stream 2 are as follows:

- Programs must address an identified distribution system need
- Programs must be cost-effective,[4] with cost-effectiveness assessed using both the Distribution Service Test and the Energy System Test, as detailed in the OEB's Benefit-Cost Analysis (BCA) Framework
- Program costs are allocated between distribution rates and the Global Adjustment based on the beneficiary pays principle, using the proportion of Program benefits to distribution service and to the upstream energy system
- Distributors have the lead in Program design and delivery, while oversight is shared between the OEB and the IESO based on their areas of expertise and responsibilities.

At a high level, the roles and responsibilities of distributors, the IESO, and the OEB in Stream 2 are as follows:

- **Electricity distributors** are responsible for identifying distribution system needs that may be suitable to address through a Program, designing a program proposal (Program Proposal), securing IESO endorsement and Global Adjustment funding, securing OEB approval for distribution rate funding, and delivering an approved Program while complying with any conditions related to Program funding.
- **The IESO** is responsible for reviewing Program Proposals and (as appropriate) endorsing Programs, including authorizing Global Adjustment funding. The IESO's review includes confirming the reasonableness of assumptions in the Program proposal based on

[4] With defined exceptions

its technical expertise in delivering eDSM programs, and ensuring alignment with existing eDSM tools and guidance, such as supply-side avoided cost data and the IESO's Measures and Assumptions List (MAL). The IESO is also responsible for annual and final Evaluation, Measurement, and Verification (EM&V) of Programs, including verification of actual Program savings achieved.

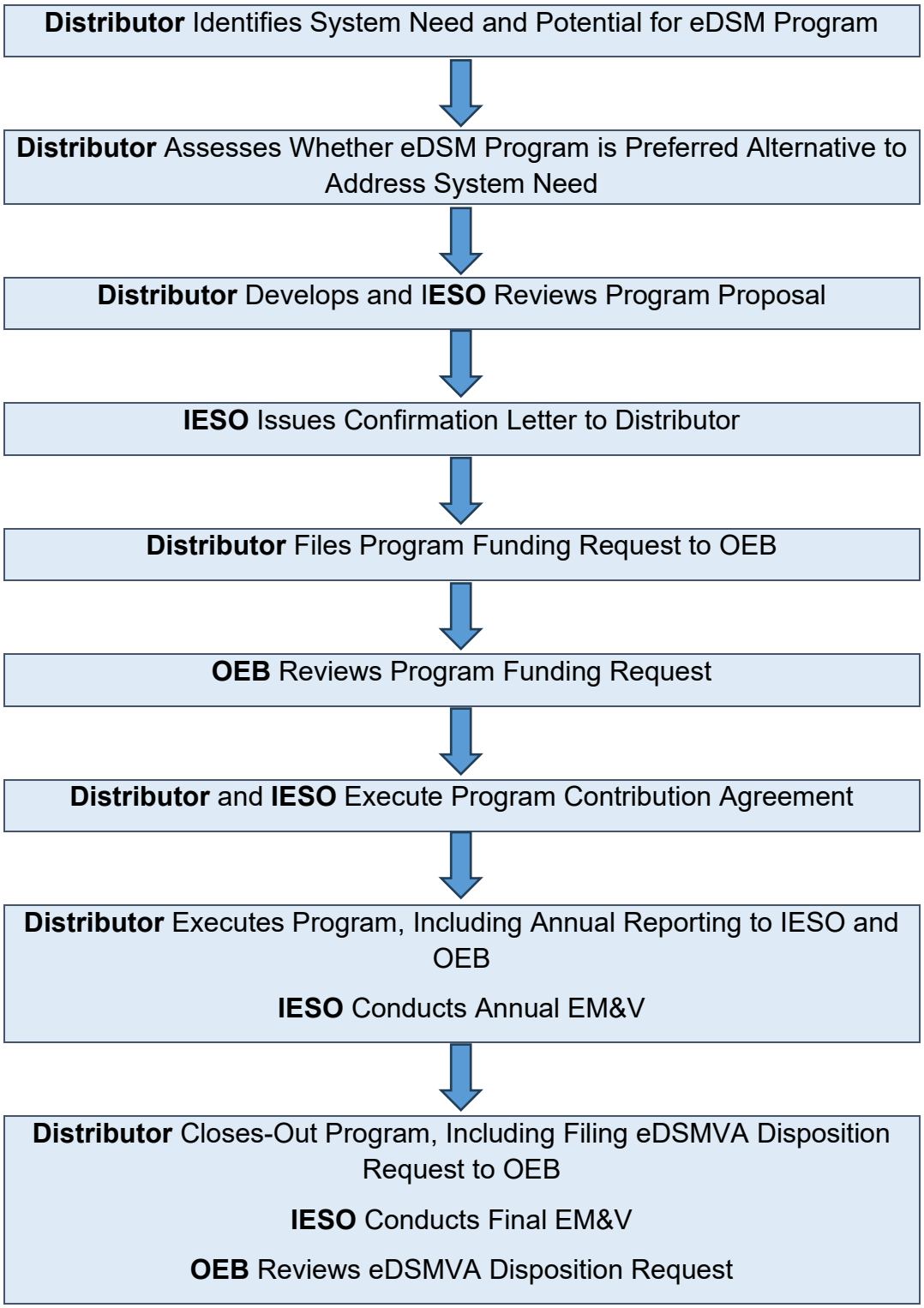
- **The OEB** is responsible for reviewing and approving all Program funding requests (whether filed as a stand-alone application or as part of a larger rate application) that involve funding from distribution rates, including authorizing new or updated eDSM rate riders, and disposition of balances in the eDSM Variance Account (eDSMVA). The OEB's review includes, but is not limited to, consideration of the distribution system need and alternatives, and the identified distribution service benefits. The OEB also maintains and updates the NWS Guidelines, BCA Framework, and other relevant policies as appropriate to provide guidance on and facilitate Program funding requests.

The roles of distributors, the IESO and the OEB throughout the Program life-cycle are described in the next section.

Program Life-Cycle

The life-cycle of a Program is shown in Figure 1, Stream 2 eDSM Program Life-Cycle, and further described in the following sub-sections at a high level, with descriptions of each phase, from initial conceptualization to final close-out, and identification of roles and responsibilities at each phase. More detail on the OEB's expectations as they relate to OEB approvals is provided in Chapters 1-4 of this Appendix.

Figure 1. Stream 2 eDSM Program Life-Cycle



Step 1: Distributor Identifies System Need and Potential for eDSM Program

As part of distribution system planning,[5] a distributor identifies a distribution system need, such as capacity constraints or reliability concerns, and through a pre-assessment, further identifies that an NWS using eDSM measures may be a viable approach to meeting the need. The distributor may also estimate (at a high level) whether the NWS potentially offers a cost-effective alternative to traditional infrastructure investments.

Step 2: Distributor Assesses Whether eDSM Program is Preferred Alternative to Address System Need

Upon determining that an NWS using eDSM measures may be a viable approach to meeting a system need, a distributor conducts additional analysis that may lead to a Program Proposal.

This analysis should include considerations such as:

- Delineating geographic extent of service area relevant to the distribution system need.
- Identifying target customer segments and numbers of eligible customers within these segments that could contribute to addressing the distribution system need
- Developing the Program delivery model, including program eligibility criteria and any potential role for third parties
- Considering what eDSM measures would be part of the Program, identifying whether information on energy and peak demand savings delivered by these measures exists on the IESO's MAL, and ensuring that these measures are not excluded from the definition of eDSM in the eDSM Directive[6]
- Identifying how the Program enhances or complements other IESO eDSM programs
- Reviewing similar programs in Ontario or other jurisdictions to gain insight on learnings and to assist in developing Program budgets and savings forecasts

[5] Non-Wires Solutions Guidelines, section 3.1

[6] Directive issued on November 7, 2024 from the Minister of Energy and Electrification to the IESO, as amended on December 19, 2024.

A distributor should then prepare preliminary budgets, energy/peak demand savings forecasts, and projected program participation rates, and assess forecast program cost-effectiveness based on these input assumptions using the IESO's cost-effectiveness calculator. This calculator generates cost-effectiveness results and the resulting cost allocation between distribution rates and the Global Adjustment (based on the proportions of distribution service benefits and upstream energy system benefits).

Considering all information in its analysis, including the forecasts of energy/demand savings relative to the size of the system need and the cost-effectiveness results, a distributor assesses whether the potential Program is a preferred alternative to address the system need. If so, it proceeds to the next step of developing a formal Program Proposal for IESO review.

Distributor Collaboration

Multiple distributors may find it beneficial to collaborate on a joint Program, if each distributor has an identified distribution system need that the joint Program could address.

A joint Program implemented by two or more distributors is expected to adhere to the following:

- Joint Program Design: Collaborating distributors are encouraged to develop a unified Program that can be scaled across service areas, leveraging shared resources and customer engagement strategies to optimize outcomes.
- IESO Review: The IESO may assess the Program on a combined basis but will issue separate Confirmation Letters and subsequent contribution agreements reflecting the cost allocation specific to each distributor. Similarly, the IESO may consolidate subsequent EM&V activities of an approved Program, but will provide final verified results for each distributor.
- Individual Applications to the OEB: Each distributor must prepare and submit its own eDSM funding application, which can include information common to all collaborating distributors, and must include distributor-specific information such as the distribution system need and ratemaking considerations.

Step 3: Distributor Develops and IESO Reviews Program Proposal

Following internal development and analysis, a distributor submits a formal Program Proposal to the IESO. Much of the information in the Program Proposal will eventually also be provided to the OEB (in its updated form) through the Program funding request to the OEB, as cross-referenced below. Therefore, a distributor should generally adopt the format of the OEB Filing Guidelines for its Program Proposal to the IESO and can leave blank sections for which data is not yet available or otherwise indicate the sections where IESO review is not required.

The Program Proposal includes:

1. **Program Overview**.
   Related sections of OEB Filing Guidelines**:** Chapter 1, Section 1.1, Program Overview.
2. **Details of the Program**, including target customers, Program delivery model, participation forecast and savings target, assessment of enhancement/complementarity with other IESO eDSM programs and measure eligibility, and Program budget.
   Related sections of OEB Filing Guidelines**:** All sections of Chapter 2, Program Details.
3. **A completed BCA**, including the Excel-based BCA reporting template that integrates the output from the IESO's cost-effectiveness calculator, and the supporting evidence for the BCA. This includes confirmation that the BCA results make the Program eligible for funding based on the cost-effectiveness thresholds that apply to Stream 2 local eDSM. The BCA results also provide the proportion of Program benefits for distribution service and for the upstream energy system, which will be used to allocate Program costs between distribution rates and the Global Adjustment.
   Related sections of OEB Filing Guidelines**:** Chapter 3, Benefit-Cost Analysis, excluding the sections on Need and Alternatives Considered.
4. **Allocation of Program costs, and the amount of Global Adjustment funding requested from the IESO in each year of the Program**, inclusive of amounts related to forecast distributor incentives that would be funded from the Global Adjustment.

Related sections of OEB Filing Guidelines: Chapter 4, Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor.

Scope of IESO Review

The IESO will review the Program Proposal, including Program details, the BCA and related input assumptions, as well as the calculation of the cost allocation between the Global Adjustment and distribution rates, and the overall Program budget including any distributor incentive.

Program details reviewed by the IESO would include:

- Measures proposed for inclusion in the Program, and associated measure-level energy and peak demand savings
- Program participation and overall Program energy and peak demand savings forecasts
- Customer incentive amounts and the overall customer value proposition expected to drive interest and participation in the Program
- Program time horizon
- Program delivery approach and associated program administration and marketing costs
- Overall Program budget
- Data to be recorded by the distributor to support annual EM&V
- Assessment of enhancement/complementarity with province-wide or regional eDSM programs delivered by the IESO under the eDSM Directive.

The IESO also reviews input assumptions in the BCA (with the exception of assumptions related to distribution service benefits) to confirm their reasonableness and consistency with established data sources.[7]

[7] Based on its experience, the IESO may also identify additional information in the categories below that was not noted in the distributor's Program Proposal but should be considered in the BCA. In this circumstance, the IESO would inform the distributor of the additional information that should be incorporated into a revised BCA for the IESO's consideration.

This includes review of:

- Input assumptions for the value of avoided energy costs and avoided generation capacity costs. Distributors are expected to use IESO-endorsed values for these input assumptions, as detailed in the BCA Framework or provided by the IESO. By using the IESO's cost-effectiveness calculator, distributors will have access to the most up-to-date input assumptions.
- Measure-level savings assumptions. For measures included in the MAL, distributors are generally expected to use the values from the MAL. Savings assumptions for measures on the MAL will be pre-loaded in the IESO's cost-effectiveness calculator.
- Any identified qualitative impacts associated with the upstream energy system, including transmission impacts.
- Any identified qualitative benefits (including societal benefits) for a Program targeting income-qualified customers or on-reserve First Nation communities that does not have an EST ≥ 1.0. The IESO may take these benefits into consideration in determining whether to endorse the Program.
- A risk mitigation strategy to address key risks identified as BCA considerations, including risks to the Program achieving stated outcomes.

The IESO is **not** expected to review information on Program details and related input assumptions in the BCA regarding: the distribution system need and alternatives; distribution service benefits included (quantitatively or qualitatively) in the BCA; compliance with the conditions in the OEB's *Affiliate Relationships Code for Electricity Distributors and Transmitters* regarding the potential role in Program delivery (if any) for a distributor's affiliate; and the details of any proposed distributor incentive (except to take account of the cost of the distributor incentive as part of the overall Program budget and the impact on Program cost-effectiveness).

Refinement of Program Proposal

The IESO will coordinate with a distributor to refine Program assumptions or address data gaps, as necessary, before the IESO confirms its endorsement of the Program. This iterative process may lead to minor adjustments

regarding Program details, such as customer incentive levels, target customer segments, marketing approaches, or other changes to ensure the Program Proposal is realistic, accurate, and fully optimized for both local and system-wide objectives.

Availability of Global Adjustment Funding

As part of its review, the IESO also confirms that Global Adjustment funding is available to support the overall maximum Program budget for which Global Adjustment funding is requested based on the allocation of Program costs.

The IESO will maintain a combined budget of at least $90 million and no more than $150 million for distributor participation in eDSM programs (Streams 1 and 2) for each three-year period covered under a provincial eDSM Plan, consistent with the eDSM Directive and multi-year planning cycles. This ensures that Stream 2 expenditures from the Global Adjustment remain within the provincially established eDSM envelope.

Step 4: IESO Issues Confirmation Letter to Distributor

Following its review of the Program Proposal (including any changes resulting from this review), the IESO confirms whether it endorses the Program. If so, the IESO also confirms that Global Adjustment funds are available for the Program in the amount requested, contingent on OEB approval of the related request for distribution rate funding, and provides any comments regarding the Program that may assist the OEB in its subsequent review.

The IESO may develop a standardized Confirmation Letter for this purpose. Details of the information the OEB would expect the IESO to confirm are provided in Chapter 1, Section 1.5, IESO Comments/Confirmation Letter.

The IESO confirmation neither guarantees nor replaces OEB approval. It indicates that from the IESO's perspective, the Program meets established technical and cost-effectiveness thresholds and the assumptions in the Program Proposal are fundamentally sound. This confirmation becomes a critical part of the distributor's subsequent application to the OEB.

Step 5: Distributor Files Program Funding Request to OEB

A distributor then files a request for distribution rate funding for the Program through an application to the OEB, following the Filing Guidelines provided in Chapters 1-4 of this appendix.

The distributor requests approval of the Program, including an eDSM rate rider to recover the forecast incremental cost of the Program that would be funded through distribution rates, and approval to make entries in the eDSMVA related to the Program.

A distributor may file this funding request as a stand-alone application or as part of a larger rate application (e.g., IRM, Annual Update, or Cost of Service application).

Step 6: OEB Reviews Program Funding Request

The OEB Chief Commissioner will determine whether the review of the Application will be conducted under delegated authority or by a Panel of OEB commissioner(s).

The OEB will then review the application and ultimately decide on the Program approvals requested, including any conditions of approval.

Step 7: Distributor and IESO Execute Program Contribution Agreement

Following an OEB decision on the Program (which would confirm the amount of Program funding eligible for recovery through distribution rates), the distributor and the IESO finalize a contribution agreement covering the portion of Program costs funded through the Global Adjustment. The IESO may develop a standardized contribution agreement for this purpose. The contribution agreement clarifies the maximum Program budget, payment schedules, and any reporting obligations or additional conditions tied to receiving Global Adjustment funding. Continued Global Adjustment funding will be subject to the distributor fulfilling reporting and data provisions required to support IESO EM&V and oversight of program performance.

Step 8: Distributor Executes Program

With an OEB approval and a finalized contribution agreement with the IESO, a distributor proceeds with execution of the Program.

A distributor provides reporting to both the IESO and the OEB, including reporting on Program spending, participation, and unverified peak demand and energy savings.

Reporting to the IESO supports disbursement of Global Adjustment funds and IESO EM&V activities. The IESO conducts Program EM&V that includes annual reporting on verified peak demand and energy savings and program cost-effectiveness. Reporting to the IESO also supports Program monitoring,

including identification if a Program is underperforming. Under defined conditions, underperformance will require a distributor to develop a mitigation plan (which could include Program adjustments) that must be endorsed by the IESO for the Program to continue.

Reporting to the OEB is provided by the distributor annually on an informational basis, typically as part of an IRM, Annual Update, or Cost of Service application. In addition to the reporting information provided by the distributor to the IESO, the report to the OEB includes the results of IESO EM&V (most recent, as available), and any Program adjustments including those related to a mitigation plan. If Program adjustments can be managed within the budget in the OEB's original Program approval, then OEB approval of the Program adjustments is not required; however, IESO support should be sought for major Program adjustments that will impact budgets, targets, or cost-effectiveness.

Step 9: Distributor Closes-Out Program

Following the designated end of the Program, the IESO undertakes a final EM&V report, which may incorporate a process evaluation as well as final reporting on verified peak demand and energy savings and Program cost-effectiveness. The distributor will then reconcile any outstanding funding balance with the IESO (including the cost of any distributor incentives funded through the Global Adjustment, based on actual Program results).

Subsequently, Program close-out is done through a distributor's request to the OEB for disposition of the balance in the eDSMVA, typically as part of a distributor's next Cost of Service application following the end of the Program. Disposition reconciles actual Program expenditures with revenues collected and is subject to a prudence review based on final Program documentation. Disposition of costs associated with distributor incentives funded through distribution rates is also reconciled and awarded based on actual Program results.

1. OEB FILING GUIDELINES: CHAPTER 1, PROGRAM OVERVIEW AND APPROVALS

1.1. Program Overview

This section of the Program application should contain a brief summary of the Program, including:

- Program description, including forecast energy and peak demand savings, measures, target customer segments and program delivery model
- Distribution system need addressed by the Program, and any traditional infrastructure alternative avoided or deferred
- Program term and start date
- Forecast Program budget
- Program benefit-to-cost ratio, as determined by completed BCA (with and without the cost of distributor incentives)
- Allocation of Program cost between Global Adjustment Funding and distribution rates, as determined by completed BCA
- Confirmation of IESO support for the Program

1.2. Requested Approvals

This section of the Program application should identify the approvals requested from the OEB.

Typically, the approvals requested will be:

- Approval of the Program for a specified term, including an eDSM rate rider effective on a specified date and for a specified term to recover the forecast incremental revenue request, as detailed in Chapter 4, Section 4.5, eDSM Rate Rider of the Program application.
- Approval to make entries in the eDSMVA related to the Program, as detailed in Chapter 4, Section 4.7, eDSM Variance Account of the Program application.
- (Optional) Approval of an incentive mechanism for a distributor incentive, as detailed in Chapter 4, Section 4.1, Distributor Incentives of the Program application.

Program Term

The initial term of Program approval is limited to a maximum of three years, or five years if filed as part of a Cost of Service application.

The requested term for Program approval may extend through rebasing into a new rate term (subject to the three-year maximum). In this circumstance, at rebasing, a distributor can request either continuation of the previously approved eDSM rate rider, or an updated eDSM rate rider based on updated billing determinants from the Cost of Service application. The request for a renewed or updated rate rider will not generally entail a comprehensive Program review, or require a distributor to provide any additional evidence related to the Program beyond what is already filed in the annual reporting requirements described in Chapter 1, Section 1.4, Conditions of Approval.[8] However, the OEB has the option of requesting additional evidence to support the request for a renewed or updated rate rider.

1.3. OEB Decision-Maker

This section of the Program application should provide information that is relevant to the Chief Commissioner's determination as to whether a Program application will be reviewed by delegated authority or a Panel of OEB commissioner(s). The Chief Commissioner will make this determination on a case-by-case basis.

If the Program funding request is made as part of a larger rate application, a Panel of OEB commissioner(s) may be assigned to the application due to factors unrelated to the Program funding request. In this circumstance, it is expected that Panel review would also apply to the Program funding request.

[8] Provided that the distributor is not requesting to change the underlying Program budget that is the basis for the rate rider. In that circumstance, additional evidence would be required.

Information should be provided in this section of the application that addresses the following questions:

1. **What is the size of the annual Program funding request from distribution rates, as a percentage of a distributor's base revenue requirement in its current or most recent Cost of Service proceeding?**
    - This should be calculated based on the annual average over the Program term of the incremental revenue request for distribution rate funding (Section 4.3, Incremental Revenue Request).
    - As a guideline only, a Program funding request of approximately 2.5% of the base revenue requirement or greater may warrant consideration of Panel review.
2. **Does the rate application as a whole (including the requested eDSM rate rider) cause total bill increases for any customer class to exceed 10%, requiring a mitigation plan?[9] If so, is the eDSM rate rider a significant contributing factor to the bill increase, and/or is the design of the eDSM rate rider part of the mitigation plan?**
    - This information can be drawn from or reference Section 4.6, Bill Impacts and Mitigation. Significant impacts of the eDSM rate rider on individual customer classes may warrant consideration of Panel review.
3. **What is the benefit-to-cost ratio of the Program, absent any notional benefit based on qualitative distribution service benefits?**
    - This information can be drawn from or reference Section 3.1, Benefit-to-Cost Ratio and Eligibility Considerations
    - As a guideline only, a program with a benefit-to-cost ratio < 1.0 absent any notional benefit based on qualitative distribution service benefits (or < 0.7 prior to consideration of qualitative benefits for a Program targeting income-qualified customers or

[9] The expectation for a mitigation plan under these circumstances is included in the Filing Requirements for both Cost of Service and IRM rate applications.

on-reserve First Nation communities) may warrant consideration of Panel review.

4. **Is a distributor incentive requested, and if so, does it use the Margin on Payments incentive methodology detailed in the Distribution System Code, or a different incentive mechanism?**
    - This information can be drawn from or reference Section 4.1, Distributor Incentives. Incentive proposals, particularly if using an approach other than the standardized Margin on Payments methodology, may warrant consideration of Panel review.
5. **Has any funding been proposed (and not rejected) in a previous rates proceeding for an investment that addresses, in part, or in full, the same distribution system need that the Program will address?**
    - This information can be drawn from or reference Section 3.3, Alternatives Considered and Section 4.3, Incremental Revenue Request as appropriate. This circumstance may warrant consideration of Panel review to assess the degree of overlap and the value added by the Program, and whether a revenue adjustment is required.
6. **Has the distributor identified specific traditional investments that could be avoided or deferred as a result of the Program, and quantified this distribution service benefit in the BCA?**
    - This information can be drawn from Section 3.3, Alternatives Considered and Section 3.4, Cost-Effectiveness Test as appropriate. If the assumptions used to value distribution service benefits require further scrutiny (e.g., if there is not a well-defined viable traditional investment alternative), this may warrant consideration of Panel review.

A distributor may include additional rationale (or reference other parts of the application) to support its answers to these questions, if desired.

This information will assist the Chief Commissioner in determining whether the application should be reviewed by delegated authority or by a Panel. This list of considerations is non-exhaustive and applicants are encouraged to include any other additional information they believe is useful and relevant.

1.4. Conditions of Approval

The only standard conditions of Program approval[10] will be for the distributor to:

- Provide annual reporting on Program activity to the OEB.
- Promptly inform the OEB if the IESO has withdrawn its support (and future Global Adjustment funding) for the Program as a result of Program underperformance, and wind down the Program or seek an updated approval from the OEB as soon as possible in this circumstance.

This section of the Program application should either confirm that the distributor is prepared to comply with the standard conditions of OEB Program approval or identify any proposed changes to these conditions and may also identify any additional requested conditions of approval.

Additional information on annual reporting requirements and adjustments to an approved Program are provided below.

Annual Reporting

Reporting on Program activity should be provided to the OEB on an annual basis. The initial annual report should cover the first full or partial calendar year of Program activity and be filed with the OEB the following year (typically as part of an IRM, Annual Update, or Cost of Service application), with continuing reporting in subsequent years. In its initial application for Program approval, a distributor should indicate the likely application in which it expects its first annual report on Program activity to be filed.

Annual reporting to the OEB is intended for informational purposes and does not require OEB approval.

The annual report should provide the following information, for the year covered and for previous years of Program activity, if applicable:

- Brief overview of Program status and any notable in-year developments.
- Any adjustments to the originally approved Program that have been implemented or are under consideration, including those resulting

[10] Separately, the IESO may establish additional conditions for its provision of Global Adjustment funding to the distributor, as part of a contribution agreement.

from an IESO EM&V report or a mitigation plan for an underperforming program.

- Actual Program spending (including unit Program cost) relative to that forecast in the Program budget in the original OEB approval (Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor).
- Summary of Global Adjustment funding received from the IESO, revenue recovered from distribution rates through the approved eDSM rate rider, and the balance in the eDSMVA.
- Actual Program participation and peak demand/energy savings, relative to forecast/target.
    - A distributor should indicate whether reported peak demand/energy savings are based on verified or unverified program results, and what adjustments (if any) have been made to peak demand/energy savings due to IESO EM&V performed to date.
- Explanations for any significant cost or performance variances from forecast.
- An attachment of the most recent IESO EM&V report, if one exists.[11]
    - The IESO EM&V reports will include an assessment of Program cost-effectiveness, based on verified results.

Program Adjustments and Mitigation Plan

As a distributor begins implementation of an approved Program and gains experience, it may identify adjustments that would improve the effectiveness of the Program.

Distributors are encouraged to monitor Program performance and proactively consider Program adjustments, particularly if internal data on actual Program participation levels, costs, or energy/demand savings relative to forecast suggests that a Program is underperforming. A distributor should seek IESO

[11] Due to timing of IESO program EM&V, an IESO EM&V report for the program year may not be complete at the time the annual report is filed with the OEB, and would then be filed as part of next year's annual report.

support for major Program adjustments that will impact budgets, targets, or cost-effectiveness, including completing an updated BCA where appropriate.

If IESO EM&V reports show that Program performance is below a benefit-to-cost ratio of 1.0 for two consecutive years,[12] a distributor would be required to provide a performance mitigation plan to the IESO to address underperformance, which could include Program modifications, including rescoping or discontinuing elements of the Program. The IESO may propose changes to the mitigation plan as appropriate. If the IESO does not endorse the mitigation plan, it has the option of withdrawing its support (and future funding) for the Program, in which case the Program would be wound down.

If Program adjustments (whether identified as part of a mitigation plan or otherwise) can be managed within the budget in the OEB's original Program approval, then OEB approval of the Program adjustments is not required. Program adjustments are described in the annual reporting to the OEB, and again at Program close-out when the distributor seeks disposition of the balance in the eDSMVA, allowing the OEB to review the prudence of the distributor's actions.

If Program adjustments would require an increased budget, a new OEB Program approval would be required.[13]

Should Program adjustments lead to a large decrease in the Program budget, a distributor has the option of requesting a revised eDSM rate rider, to better align Program spending with the revenue collected. This request would typically be made in the same rate application in which the Program annual report is filed.

In the case of a Program being wound down prior to the end of its approved term (whether the wind-down is initiated by the distributor, or results from the IESO not endorsing the mitigation plan for an underperforming Program), the OEB would generally expect a distributor to request removal of the eDSM rate rider as soon as possible.

[12] With the exception of Programs not required to have a benefit-to-cost ratio ≥ 1.0

[13] An approval is not required if a distributor is making use of the 15% overspending provision described in Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor, and has satisfied the conditions on Program performance required to access this funding.

1.5. IESO Comments/Confirmation Letter

This section of the Program application should confirm IESO endorsement of the Program and attach any comments from the IESO.

The IESO may develop a standardized Confirmation Letter that provides its comments and is expected to confirm the following factors:

- The IESO has reviewed the Program Proposal, including the Program details, the resulting BCA developed based on the Program details, and the amount of Global Adjustment funding requested from the IESO.
- The IESO believes the supporting input assumptions in the BCA that are part of its scope of review are reasonable. The IESO may optionally identify any qualifications associated with its review of the Program Proposal and confirmation of the reasonableness of input assumptions. As illustrative examples only, the IESO might identify that:
    - Aspects of the Program Proposal (e.g., the target customers and participation forecast) rely on information specific to the distributor's service territory that would benefit from additional OEB review.
    - There is limited experience on which to base some Program input assumptions, and thus potential for a wider variance in outcomes.
- The IESO endorses making the Program eligible for Global Adjustment funding under section F of the eDSM Directive based on its review of the Program Proposal. This condition will typically be satisfied if:
    - The IESO believes (as described above) that the input assumptions used in the program BCA regarding costs and upstream energy system benefits are reasonable.
    - The Program BCA has a benefit-to-cost ratio ≥ 1.0[14]

[14] In some cases, this may be achieved through inclusion of a notional benefit based on distribution service benefits (which the IESO would not review), as discussed in Section 3.1, Benefit-to-Cost Ratio and Eligibility Considerations

        - Programs for on-reserve First Nation communities or income-qualified customers are not required to achieve a benefit-to-cost ratio ≥ 1.0. For a Program in this category with a benefit-to-cost ratio < 1.0, the IESO may take into consideration the BCA results and any additional qualitative benefits identified by the distributor (including societal benefits) in making its determination as to whether the Program should be eligible for Global Adjustment funding.
    - The IESO has determined that the Program enhances or complements IESO eDSM programs and is aligned with the definition of eDSM in the eDSM Directive.
- The IESO supports the expected allocation of Program costs between Global Adjustment and distribution rates, based on its review of the Program Proposal and BCA results.
- Global Adjustment funds are available for the Program in the amount identified, contingent on OEB approval of the related request for distribution rate funding.[15]
    - The letter should state the maximum Program budget that the IESO will support through Global Adjustment funding. This establishes an upper limit unless the distributor subsequently receives an amended contribution agreement from the IESO to support any additional Global Adjustment funding requested.
- The IESO agrees to conduct or co-ordinate independent EM&V for the Program, if approved.
    - At a minimum, Program EM&V will include annual EM&V reports that report on net verified peak demand and energy savings and Program cost-effectiveness (including any recommendations from the evaluator to improve Program

[15] The possibility exists that the OEB decision could alter the amount of requested Global Adjustment funding for the Program (for example, by adjusting the claimed distribution service benefits, and thus changing the cost allocation between the Global Adjustment and distribution rates for the Program). In such a circumstance, the IESO would need to reconsider the Global Adjustment funding request before finalizing a contribution agreement and enabling the Program to proceed.

performance), and a final EM&V report on Program close-out to assist in the OEB's prudence review and determination on any distributor incentive that a distributor may be eligible for. At the IESO's discretion, annual or final EM&V may also include process evaluations to identify potential improvements to the Program.

The IESO confirmation of support for the proposed program does not guarantee subsequent OEB approval of distribution rate funding.

In this section, a distributor may also optionally describe any changes that resulted from IESO review of the Program proposal and preceded the IESO's confirmation of support of the Program application.

2. OEB FILING GUIDELINES: CHAPTER 2, PROGRAM DETAILS

This chapter of the Program application should provide details on the Program, including the information described in each section below.

2.1. Target Customers

This section of the Program application should identify and describe the customer segment(s) that will be targeted to participate in the Program (e.g., commercial, residential, industrial), with more specific descriptions if appropriate. The associated rate class(es) of the target customer segments should also be identified. A distributor should also indicate whether the program will be offered throughout the entirety of the distributor's service territory, or will be geographically limited, based on the identified distribution system need that the program is intended to address.

Additional supporting information should include details on the estimated size of the potential participation base (e.g., number of target customers, aggregate annual energy consumption or peak demand associated with these customers).

2.2. Program Delivery Model

This section of the Program application should provide details on the Program delivery model, including

- marketing and customer outreach
- customer offer strategy (e.g., level of incentive or other reward to customers for Program participation; potential bill savings or other benefits to participating customers)
- measure implementation strategies
- measure activation (if the Program involves control or activation of eDSM measures, such as a demand response program), and strategy for motivating performance during activation events.

A distributor should describe which aspects of the Program delivery model will be the responsibility of a distributor's staff, and which will be performed by third parties. A distributor should identify the proposed approach for

selecting a third party for aspects of Program delivery, referencing a distributor's procurement policy as appropriate.[16] If there is any potential role in Program delivery for a distributor's affiliate, this should be identified and the distributor should attest that the potential affiliate role is compliant with the relevant conditions of the OEB's *Affiliate Relationships Code for Electricity Distributors and Transmitters*. If the program will rely on or leverage aspects of delivery of IESO province-wide programs this should also be described.

A distributor should identify whether there is any intent to co-ordinate the program with entities delivering natural gas DSM programs and whether there is any potential overlap with existing natural gas DSM programs (for Stream 2 local eDSM programs for residential and income-qualified customers, it is expected that the IESO will determine how, if at all, the approach to marketing and delivery of a Program would be integrated with the existing single delivery window approach for residential and income-qualified programs).

For a Program targeting on-reserve First Nations communities, a distributor should indicate how it has requested the advice of First Nation communities and organizations, and considered their recommendations, including in relation to Program delivery.

2.3. eDSM Measures and Measure-Level Savings

This section of the Program application should describe the eDSM measure(s) that will be used in the Program to provide peak demand (kW or kVA) and energy (kWh) savings, and provide estimates for measure-level savings (i.e., annual peak demand and annual and lifetime energy savings per measure or per customer, including any assumptions around year-to-year persistence of savings/measure life).

A distributor may adjust and describe peak demand savings estimates to account for factors such as line losses, distribution coincidence factor, or derating factor/availability, as appropriate.[17]

[16] See Filing Requirements, s. 2.4.3.3
[17] See BCA Framework, Table 4.

Peak demand savings should typically be presented to show both:

- the demand reduction forecast at the time of Ontario-wide system peak, as defined in the IESO's EM&V protocol.
- the demand reduction forecast at the time of distribution system annual peak (or the time of annual peak for the specific element of the distribution system that has a system need being addressed by the program).

These values may be the same or different, depending on whether the time of the two peaks coincides.

The IESO's Measures and Assumptions List (MAL) provides relevant input assumptions for many eDSM measures including operating hours, first-year energy savings, peak demand savings (Ontario-wide peak), and effective useful life. A distributor should indicate whether the program uses any eDSM measures on the most recent version of the MAL. If so, a distributor should generally use the input assumptions from the MAL and should identify any changes from the MAL assumptions that the distributor has made (with supporting rationale) to derive its estimates of measure-level savings.

For measures not on the MAL, a distributor should provide the rationale (and supporting references where appropriate, e.g. independent EM&V reports) for its estimates of measure-level peak demand and energy savings, which will be assessed by the IESO.

2.4. Participation Forecast and Savings Target

This section of the Program application should provide estimates of forecast level of Program participation (e.g., number of participating customers/measures) and peak demand/energy savings targets for each year of Program operation, with supporting rationale. A distributor may take account of factors such as the level of customer incentive, the market penetration level of the eDSM measure(s), the size of the potential participation base, measure-level savings, and results from previous eDSM programs in Ontario and other jurisdictions.

A distributor should indicate whether its savings estimates include any net-to-gross (NTG) adjustment to reflect factors such as free-ridership, spillover, or

rebound effect.[18] The OEB's final assessment of Program results, including eligibility for distributor incentives, will be based on net savings, as determined by any adjustments to the NTG ratio or realization rate made as a result of the IESO's Program EM&V.[19]

A distributor is encouraged to provide supporting references for their forecast level of participation and savings targets, e.g., results from similar IESO programs, results from similar programs in other jurisdictions, results from pilots, etc.).

2.5. Assessment of Enhancement/Complementarity With IESO eDSM Programs and Measure Eligibility

This section of the Program application should identify how the Program enhances or complements any province-wide or regional eDSM programs delivered by the IESO under the eDSM Directive, including the Home Renovation Savings Program and Energy Affordability Program that involve a single delivery window approach with natural gas distributors. A distributor is expected to take account of any additional guidance provided by the IESO, and should attest that, in its view, the Program enhances or complements an IESO eDSM program or programs (one way in which this condition could be met would be for the distributor to conclude that there is no overlap with any IESO eDSM program or programs). For Stream 2 applications, the IESO is the ultimate decision-maker as to whether a Program enhances or complements an IESO eDSM program or programs.

This section should also confirm that measures included are compatible with the definition of eDSM in the eDSM directive and do not include measures or program models excluded from this definition.[20]

[18] See section 4.1.6 of IESO Cost-Effectiveness Guide (https://ieso.ca/-/media/Files/IESO/Document-Library/EMV/IESO-CDM-CE-TestGuide-V9.pdf)
[19] See section 4.1 of IESO EMV protocols (https://ieso.ca/-/media/Files/IESO/Document-Library/EMV/Evaluation-Measurement-and-Verification-Protocol-V5.pdf)
[20] Sections G.1 and G.2 of eDSM Directive.

3. OEB FILING GUIDELINES: CHAPTER 3, BENEFIT-COST ANALYSIS

This chapter of the Program application should provide details on the BCA that is completed for the Program and used to determine the proposed cost allocation between Global Adjustment funding and distribution rates.

Detailed guidance on the BCA is provided in the BCA Framework.

Sections 3.2 to 3.8 of this chapter encompass the BCA filing requirements described in the BCA Framework,[21] including the addition of specific considerations in the context of Stream 2, whereas Section 3.1, Benefit-to-Cost Ratio and Eligibility Considerations, is a new requirement unique to Stream 2.

The completed Program BCA must include both the Distribution Service Test (DST) and Energy System Test (EST) as described in the OEB's BCA Framework. Methodologically, the EST should be calculated first, because the benefits entered into the EST, separated into distribution service (DST) benefits and upstream energy system benefits, determine cost allocation between distribution rates and the Global Adjustment, and the costs allocated to distribution rates are then used as an input to the DST. If done correctly, the calculated benefit-to-cost ratios for the DST and EST will be identical.[22] The IESO's cost-effectiveness calculator will automatically calculate both the DST and EST results.

3.1. Benefit-to-Cost Ratio and Eligibility Considerations

This section of the Program application should provide the overall benefit-to-cost ratio of the Program resulting from the BCA (as noted above, the benefit-to-cost ratios for the DST and EST will be identical) both with and without the cost of distributor incentives, and identify that the BCA results make the Program eligible for funding based on the cost-effectiveness thresholds that apply to Stream 2 programs.

For the purposes of demonstrating eligibility for funding, the benefit-to-cost ratios discussed in this section are based on a BCA that includes distributor

[21] Chapter 6 of the BCA Framework.

[22] An example of this calculation is provided in the IESO-LDC DSM Regulatory Working Group report (Appendix A, section 3.2).

incentives as a cost (see Section 3.4, Cost-Effectiveness Test, for additional details).

Eligibility should be demonstrated with one of three approaches:

- **The Program's benefit-to-cost ratio is greater than or equal to 1.0 based on quantified benefits and costs.**
- **The Program's original benefit-to-cost ratio based on quantified benefits and costs is less than 1.0. However, the Program's benefit-to-cost ratio based on quantified benefits and costs is greater than or equal to 0.7 and provides additional qualitative distribution service benefits. Therefore, a notional benefit has been added to bring the benefit-to-cost ratio = 1.0.**
    - Details on the qualitative distribution service benefits are to be provided in Section 3.5, Other BCA Considerations.
    - In this circumstance, a distributor will add a notional distribution service benefit sufficient in magnitude to bring the benefit-to-cost ratio (for both the DST and EST) equal to 1.0. The OEB will assess whether the qualitative distribution service benefits described by a distributor are sufficient to justify the notional distribution service benefit and approve the Program despite its lower (original) benefit-to-cost ratio.
    - Because this benefit is treated as a distribution service benefit, not an upstream energy system benefit, the cost allocation approach allocates a commensurate share of costs to distribution rates, not Global Adjustment funding.
    - If the Program is approved with a notional distribution service benefit, this benefit will continue to be incorporated into subsequent assessments of Program cost-effectiveness.
- **The Program is not required to demonstrate a benefit-to-cost ratio greater than or equal to 1.0, as it targets income-qualified customers or on-reserve First Nation communities.**
    - In this circumstance, a distributor should briefly describe in this section how the Program targets income-qualified or on-reserve First Nation communities (e.g., by reference to relevant content in Chapter 2, Program Details).

- Details on the qualitative benefits are to be provided in Section 3.5, Other BCA Considerations. While Programs targeting income-qualified customers or on-reserve First Nation communities are not required to achieve a benefit-to-cost ratio ≥ 1.0 (or any defined minimum benefit-to-cost ratio), the OEB will still take the benefit-to-cost ratio into consideration. The OEB will assess whether the qualitative benefits described by a distributor justify approving the Program despite its lower benefit-to-cost ratio.

3.2. Need

This section of the Program application should provide a narrative description of system needs and the associated context. This should specify whether the need is discretionary or nondiscretionary, the timing of the need, the main driver of the need, and any uncertainties.

Stream 2 considerations: Eligibility for Stream 2 funding requires identification of a specific distribution system need that can be addressed (e.g., capacity constraints, reliability concerns), in whole or in part, by the proposed Program.

Where possible, a distributor should substantiate the need (and any related consideration of alternatives including traditional poles-and-wires solutions, described in the next section) by reference to publicly available or previously filed sources (such as Distribution System Plans, capacity maps, or regional planning documents). A distributor may refer to factors relevant to its distribution system (e.g., load-growth trends or reliability metrics) as appropriate. If a distributor is relying on publicly available or previously filed materials to justify the need, it should confirm that system conditions have not changed and the need remains as described or identify any relevant updates.

If publicly available or previously filed materials do not provide sufficient documentation of the need, a distributor should include supplemental evidence in this section (and likewise in the next section, regarding alternatives).

3.3. Alternatives Considered

This section of the Program application should provide specification of the reference scenario and the alternatives under consideration. The reference scenario for nondiscretionary needs will typically be the traditional poles-and-wires solution as this is what would be deployed under business-as-usual practices to ensure the reliability and continuity of customers' distribution service. The reference scenario for discretionary needs may be that no action is undertaken.

***Stream 2 considerations*:**

Overlapping projects addressing the same system need: As noted in the NWS Guidelines, a distributor should identify whether any funding to address the identified system need has been proposed (and not rejected) in a previous rates proceeding. This would typically be in the form of a proposal for a traditional poles-and-wires solution, similar or identical to that used as the reference scenario, either through a discrete approval request for an Advanced Capital Module/Incremental Capital Module project, or as part of the capital budget considered as part of a Cost of Service proceeding. A distributor should attach its most recent Distribution System Plan as part of the Program application and identify whether there is any overlap between investments in the Distribution System Plan and the Program with regards to the system need being addressed.

A distributor may also have previously proposed funding for an NWS to address the same system need as the Program, either through a discrete approval request for an NWS, or as part of the OM&A or capital budget request considered as part of a Cost of Service proceeding. If applicable, a distributor should also attach relevant aspects of the previous proposal as part of the Program application and identify whether there is any overlap between this NWS and the Program with regards to the system need being addressed.

If a distributor identifies that some funding to address the identified system need has been proposed (and not rejected) in a previous rates proceeding, a distributor should ensure that the Program BCA takes into account the impact

of the overlapping poles-and-wires solution/NWS.[23] Supporting information should be provided as appropriate to assist the OEB in understanding how the value of the Program is impacted by the overlapping poles-and-wires solution/NWS. For example, a distributor may describe the degree of overlap between the Program and the previously proposed poles-and-wires solution/NWS, the current status of the previously proposed poles-and-wires solution/NWS, and whether and why previously proposed spending on the overlapping poles-and-wires-solution/NWS would proceed or would be adjusted or redirected.[24]

This information will also assist the OEB in its review of whether a revenue adjustment is necessary, as described in Section 4.3, Incremental Revenue Request.

3.4. Cost-Effectiveness Test

This section of the Program application should provide a summary of the sources and methods used to estimate the quantitative benefits and costs included in the test(s), as well as a summary table of the impacts themselves and a discussion of any key areas of uncertainty related to these values.

***Stream 2 considerations*:** Stream 2 requires completion of both the DST and EST. For reference, tables in the BCA Framework identifying the categories of impacts for the DST and EST are replicated below.[25] These tables identify which impact categories are mandatory versus permitted, and which are to be considered quantitatively vs. qualitatively. A Stream 2 BCA must include all categories identified as mandatory in these tables; however only impacts considered quantitatively should be described in this section of the application. Only quantitative impacts (including the notional benefit described below) affect the benefit-to-cost ratio and cost allocation between Global Adjustment and distribution rates.

[23] For example, if the previously proposed poles-and-wires solution/NWS has been or would still be implemented, it may impact the magnitude and timing of the distribution system need, or the value of the distribution system benefits that would be achieved by the Program. If it will be modified or not implemented at all due to the Program, this should be taken into account in the reference scenario in the BCA against which the impacts of the Program would be compared.

[24] If relevant, a distributor may choose to file an updated Distribution System Plan.

[25] Distributors should ensure they are using the most recent approved version of the BCA Framework to identify these impact categories.

Table 1. DST Impact Categories

Impact	Mandatory (M) / Permitted (P)	Quantitative	Qualitative[26]
BENEFITS			
Distribution Capacity (Deferral or Avoidance Benefit)	**M**	**X**	
Reliability (Net Avoided Interruption Costs)	**P**		**X**
Resilience (Critical Load Benefits)	**P**		**X**
Innovation & Market Transformation	**P**		**X**
Planning Value	**P**		**X**
COSTS			
NWS Acquisition Cost	**M**	**X**	
NWS Operations, Maintenance, and Administrative (OM&A) Costs	**M**	**X**	
Distribution System Ancillary Services Costs	**M**		**X**
Risks (Distribution System)	**M**		**X**

[26] Electricity distributors are permitted to provide quantitative estimated values for impacts listed as qualitative, and include those in the DST, if they have the means to do so.

Table 2. EST Impact Categories

Impact	Mandatory (M) / Permitted (P)	Quantitative	Qualitative
BENEFITS			
DST Benefits	**M**	**X**	
Transmission Capacity	**P**	**X**	
Avoided Energy Costs	**M**	**X**	
Avoided Generation Capacity Costs	**M**	**X**	
Reliability (Net Avoided Interruption Costs)	**P**		**X**
Resilience (Critical Load Benefits)	**P**		**X**
Planning Value	**P**		**X**
Innovation & Market Transformation	**P**		**X**
COSTS			
DST Costs	**M**	**X**	
NWS Acquisition Cost (incremental to DST costs)	**M**	**X**	
NWS OM&A Costs (incremental to DST costs)	**M**	**X**	
Energy System Ancillary Costs	**M**		**X**
Risks (Energy System)	**M**		**X**

For DST impacts listed as qualitative in Table 1, DST Impact Categories, the BCA Framework permits distributors to provide quantitative estimated values, and include those in the DST, if they have the means to do so. If quantifying distribution service benefits in these categories (reliability, resilience, planning value, innovation & market transformation), a distributor should indicate whether it has done so by attempting to accurately value the magnitude of these impacts, or simply by adding a notional benefit sufficient to improve the benefit-to-cost ratio to 1.0 (as described in Section 3.1, Benefit-to-Cost Ratio and Eligibility Considerations). If a distributor is adding

a notional distribution service benefit, the BCA results in this section should be provided with and without this notional benefit.

For costs listed as quantitative in Table 1, DST Impact Categories and Table 2, EST Impact Categories (DST Costs including NWS Acquisition Cost and NWS OM&A Cost, Incremental NWS Acquisition Cost, Incremental NWS OM&A Costs), these values are determined based on the cost allocation of overall Program costs between the distributor and the Global Adjustment, with the first category representing the costs paid for by the distributor, and the sum of the second and third categories representing the costs paid for through the Global Adjustment.

For EST impacts listed as qualitative in Table 2, EST Impact Categories, a distributor should **not** provide quantitative estimated values. Description of any such impacts is optional and should only be provided qualitatively in Section 3.5, Other BCA Considerations.

Calculation of avoided energy costs and avoided generation capacity costs for the EST should make use of avoided supply-side unit costs provided by the IESO, as well as energy and demand savings inputs from the MAL where appropriate. It is expected that the IESO's cost-effectiveness calculator will include these input assumptions, to facilitate calculation of the Program's avoided energy costs and avoided generation capacity costs. Transmission capacity is identified in the BCA Framework as a permitted (but not mandatory) benefit, that can be quantified. However, for Stream 2, any identified transmission capacity impacts should only be described qualitatively, and thus do not impact cost allocation between the distributor and the Global Adjustment. Including these impacts quantitatively in the EST would result (under the Stream 2 approach to cost allocation) in the IESO paying for these benefits through the Global Adjustment, and no agreement on cost allocation is in place yet for transmission benefits.

The BCA Framework does not list distributor incentives (as described in Section 4.1, Distributor Incentives of this Appendix) as a category of costs for the purpose of cost-effectiveness testing. However, for the purposes of determining whether a Program is eligible for Global Adjustment funding (Section 3.1, Benefit-to-Cost Ratio and Eligibility Considerations), and for assessing whether a performance mitigation plan is required to address underperformance of a previously approved Program (Section 1.4, Conditions of Approval), the IESO requires distributor incentives to be

considered as a cost. Therefore, the BCA should be completed, and the benefit-to-cost ratio presented, both with and without the forecast cost of distributor incentives. For other purposes (e.g., consideration of Program application review by delegated authority, calculation of the eligible amount of distributor incentives based on Program benefits and costs), the OEB will use the BCA results that exclude the cost of distributor incentives.

Proportions of Distribution Service Benefits and Upstream Energy System Benefits

The proportions of Program benefits going to distribution service (i.e. the DST benefits) and to the upstream energy system (i.e., EST benefits excluding DST benefits), which will sum to 1, should be highlighted in this section, calculated on an NPV basis, as shown below in Table 3, Program Benefits. Distribution service benefits will be inclusive of distribution capacity Benefits, any additional distribution benefits that have been quantified, and any notional benefit that has been added to achieve a benefit-to-cost ratio of 1. Upstream energy system benefits will be the avoided energy and avoided generation capacity benefits from the EST. **The proportions of Program benefits to distribution service and to the upstream energy system are used for the purpose of allocation of Program costs between distribution rates and the Global Adjustment**, as discussed in Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor.

Table 3. Program Benefits

Benefit	Net Present Value of Benefits ($)[27]	Proportion of All Quantified Benefits
Distribution Capacity (Deferral or Avoidance Benefit)		N/A
Reliability (Net Avoided Interruption Costs)**		
Resilience (Critical Load Benefits)*		
Innovation & Market Transformation*		
Planning Value*		
Notional Distribution Service Benefit		
All Distribution Service Benefits		
Avoided Energy Costs		N/A
Avoided Generation Capacity Costs		
All Upstream Energy System Benefits		
All Quantified Benefits		**1**

3.5. Other BCA Considerations

This section of the Program application should provide a summary of the qualitative considerations or any additional supporting evidence for the preferred alternative.

***Stream 2 considerations*:** This section should include the qualitative considerations identified in the BCA Framework as mandatory (risks that may impact the BCA results, and ancillary costs to either the distribution system or the energy system).

Details on qualitative benefits are also required in this section if a Program's benefit-to-cost ratio is less than 1.0 (in which case qualitative benefits are a

[27] Benefits summed from all years of Program activity
* If quantified based on accurate vauation (instead of a notional distribution service benefit)

key consideration in whether the Program should be approved), and optional otherwise.

- Qualitative benefits to distribution service should be classified using the four categories of DST impacts that the BCA Framework identifies as qualitative impacts (reliability, resilience, innovation & market transformation, planning value) and the impact on distribution service described.[28]
- For programs targeting income-qualified customers or on-reserve First Nation communities, a distributor should describe qualitative benefits to these customers (including societal benefits).

A distributor may also describe any identified transmission benefits or additional upstream energy system impacts in the categories described in the BCA Framework.

3.6. Risk Mitigation

This section of the Program application should provide identification of monitoring, mitigation, and management strategies to address risks identified as BCA considerations.

3.7. Outcome

This section of the Program application should provide a short, formal, confirmation of the alternative selected, and the essential specifications of that alternative.

***Stream 2 considerations*:** In most cases, this requirement can be met simply by a single sentence referencing the Program (as described in the application) as the alternative selected.

3.8. Data Output

This section of the Program application should provide the Excel-based quantitative output template used to complete the BCA.

[28] As noted below, the BCA Framework also provides the option for distributors to identify and describe qualitative benefits in these categories that impact the upstream energy system. However, a notional benefit to improve the benefit-to-cost ratio of a Program (including for the purpose of cost allocation) can only be proposed for distribution service benefits.

***Stream 2 considerations*:** As part of the BCA Framework, the OEB developed a reporting template, Benefit-Cost Analysis Data Filing Submission Template, to provide the results for the BCA described in Section 3.4, Cost-Effectiveness Test. The OEB intends to refine and revise this template for the purposes of Stream 2, including integrating the output of the IESO's cost-effectiveness calculator into the BCA reporting template.

4. OEB FILING GUIDELINES: CHAPTER 4, RATEMAKING CONSIDERATIONS

This chapter of the Program application should address ratemaking considerations associated with the requested Program budget to be funded from distribution rates, including distributor incentives, cost allocation, the eDSM rate rider, bill impacts and mitigation, and the eDSMVA.

4.1. Distributor Incentives

This section of the Program application should detail the distributor's proposal (if any) for an incentive to the distributor related to the Program. Calculation of the forecast incentive (which may require use of the BCA results described in Chapter 3, Benefit-Cost Analysis) is required to determine the final budget.

Distributors may request an incentive for the Program, following the OEB's Filing Guidelines for Incentives for Electricity Distributors to Use Third-Party DERs as Non-Wires Alternatives (Filing Guidelines for Incentives). If proposing to use the Margin on Payments (MoP) incentive mechanism, distributors should follow the additional requirements in the Distribution System Code, which establish a default value of 25% for the MoP incentive mechanism, eligibility criteria and other requirements for distributors.[29]

The OEB's requirements for requesting a distributor incentive can be addressed through this section of the Program application and do not require a separate incentive application.

The requirements in section 2.1 and 2.2 of the Filing Guidelines for Incentives are addressed in other sections of the Program application.[30]

[29] See Notice of Amendments to the Distribution System Code: Amendments Regarding a Margin on Payments Incentive Mechanism for the use of Third-Party Distributed Energy Resources as Non-Wires Solutions (EB-2025-0083), November 25, 2025 for more information.

[30] These sections of the Filing Guidelines for Incentives require information on the approach to obtaining services from third-party owned distributed energy resources, the system need addressed, the infrastructure alternative, the benefits to customers, and the approach to cost recovery.

This section of the Program application should therefore focus on including the following information, referencing other sections of the Program application where appropriate:

- Description of the proposed incentive mechanism, including the incentive amount, methodology, underlying inputs and assumptions, as outlined in Section 2.3.1 and 2.3.2 of the Filing Guidelines for Incentives, as well as information pertinent to the specific type of incentive selected, as further discussed in sections 3 to 5 of the Filing Guidelines for Incentives.
    - If proposing an MoP incentive, the information in section 11.3.4 c. to e. in the Distribution System Code. A distributor should also indicate in this section which costs from the Program budget (Table 4. Program Budget and Allocation of Costs) would be considered payments to third parties and thus considered eligible for the MoP incentive. For clarity, the MoP incentive can only be applied to costs paid to third parties (including incentives paid to customers to encourage purchase or activation of energy efficiency/demand response measures), not to other OM&A costs associated with the Program such as administration and marketing (if these activities are undertaken by the distributor).

  The Shared Savings Mechanism incentive and the MoP incentive (as implemented in the Distribution System Code) require the results of a benefit-cost calculation as an input. Therefore, the calculation used to determine the incentive should be consistent with the BCA used to assess the cost-effectiveness of the Program.

  Under the cost allocation approach described in Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor, the cost of any distributor incentive would be cost-shared between distribution rates and the Global Adjustment, based on the proportion of Program benefits to distribution service and to the upstream energy system.
- The proposed incentive term and approach to implementing and awarding the incentive, indicating whether there is any variation from

the default approach (discussed below) for these aspects for Stream 2 eDSM.

The Filing Guidelines for Incentives require distributors to propose an incentive term (section 2.3.3) and approach to implementing and awarding the incentive, including cost recovery (section 2.4). The default approach for these aspects, as they apply to Stream 2 eDSM, is as follows:

Incentive term: For Stream 2 eDSM, the default approach is that the incentive term would match the requested term of approval for the Program itself.[31]

If submitted outside of a rebasing application, the Filing Guidelines for Incentives (and the related Distribution System Code guidance for MoP incentives) generally limit the incentive term to the remainder of the then current rate term.

The guidance for MoP incentives specifically limits the initial incentive term to a distributor's rate term. As discussed in Section 1.2, Requested Approvals, Stream 2 eDSM applications may request a Program term that continues through rebasing into a new rate term, which will be implemented by the distributor subsequently requesting a renewed rate rider as part of its Cost of Service application. In this circumstance, if a distributor is proposing an MoP incentive, a distributor should indicate in its initial Program application that the proposed incentive term is the requested term of approval for the Program, contingent on extension at rebasing. Subsequently in its rebasing application, as part of the renewed rate rider request, a distributor should also request extension of the incentive term to match the previously approved Program term.

Incentive implementation: Section 2.4 of the Filing Guidelines for

[31] This differs from the default approach in the Filing Guidelines for Incentives, which indicates that the incentive term is generally expected to the length of the rate term (or remainder of rate term if filed outside rebasing). However, the Filing Guidelines for incentives allow a different term to be approved for Shared Savings Mechanism or Performance Target incentives, which would be established through the Program approval.

Incentives indicate that the approach to implementing and awarding the incentive would usually involve establishing a deferral account to record incentive amounts that may be earned. However, for Stream 2 eDSM, the default approach will be to embed the forecast incentive costs in the Stream 2 eDSM rate rider, with reconciliation through the eDSMVA.

The expectation is that final disposition of the incentive amount would be trued-up and awarded through disposition of the eDSMVA based on actual Program results, as determined through the IESO's EM&V. This section of the Program application should indicate which inputs to the incentive calculation would be subject to this true-up (as this may depend on the specifics of the proposed incentive). The OEB's expectation is that, in addition to use of actual data on Program costs and participation, the true-up would typically include any adjustments arising from the IESO's EM&V that impact net energy or peak demand savings (e.g., net-to-gross ratio, realization rate, changes to measure-level savings assumptions), if those factors are relevant to the amount of the incentive that would be awarded.[32] However, global changes impacting cost-effectiveness such as avoided energy/capacity costs would typically only be applied to cost-effectiveness calculations on a go-forward basis.

This section of the Program application should also indicate whether actual distribution service benefits could impact the incentive amount, and how these benefits would be assessed. The default approach to assessing actual distribution service benefits, both for ongoing EM&V reporting on cost-effectiveness (which requires valuation of distribution system benefits as an input) and calculating final incentives, is that the forecast distribution service benefits accepted at the time of Program approval would be scaled based on net verified peak demand savings (as determined by the IESO's EM&V), relative to forecast savings. Because the IESO'S EM&V will not provide an independent

[32] For clarity, the OEB's understanding is that for the MoP incentive, the criteria in section 11.3.3 of the Distribution System Code, which require (as conditions of obtaining an incentive) a net benefit greater than zero and do not permit a distributor incentive to exceed 50% of the value of the net benefit, would be considered at the time of disposition, based on the trued-up results.

assessment of distribution system benefits, any proposed modifications to the default approach of assessing distribution system benefits should be described here for the OEB's consideration. Any proposed modifications accepted by the OEB will be used in EM&V reporting on cost-effectiveness and may make use of information provided by the distributor to improve the accuracy of cost-effectiveness results for the purpose of Program close-out. The OEB retains the ability to review the valuation of actual distribution service benefits used in EM&V reporting as necessary to support final disposition of the incentive amount in the eDSMVA. However, a change to the valuation of actual distribution system benefits by the OEB at this stage should be an unlikely outcome if the approach to assessment was clearly described and accepted by the OEB at the time of Program approval.

Depending on the incentive design, the possibility exists that the final incentive (based on actual Program results) could be higher than forecast. The IESO may need to cap its incentive payment to a distributor, in order to ensure that the total Program cost paid through the Global Adjustment does not exceed the maximum amount that the IESO previously confirmed it would support. This condition does not apply to the portion of incentive costs funded through distribution rates, which will be reviewed and awarded by the OEB; however, the OEB will not enable a distributor to recover through distribution rates any incentive costs that were allocated to the Global Adjustment.

4.2. Program Budget and Cost Allocation Between Global Adjustment and Distributor

This section of the Program application should provide an itemized forecast Program budget for each year of the Program as shown in Table 4, Program Budget and Allocation of Costs, including the forecast costs related to distributor incentives and the overspending provision described below, which also shows the allocation of costs between the distributor and the Global Adjustment. Any costs borne by the IESO for Program EM&V will be recovered separately through a central budget funded from the Global Adjustment and should **not** be included as costs in the Program budget.

Additional information or calculations to support the forecast Program budget

(e.g., based on Chapter 2, Program Details) may also be provided.

The cost of the total Program budget is allocated between the distributor and the Global Adjustment in proportion to the Program benefits to distribution service and to the upstream energy system, respectively, which were calculated through the BCA in Section 3.4, Cost-Effectiveness Test.

Table 4. Program Budget and Allocation of Costs

Budget Item	Year 1 ($)	Year 2 ($)	(Add. Years)	Total ($)
Customer incentives/payments				
Program administration				
Marketing and promotion				
Miscellaneous				
Distributor incentives (forecast)				
Overall Program budget				
Distribution Service proportion of benefits[33]				
Program budget (distributor portion)				
15% overspending provision (distributor portion)				
Upstream Energy System proportion of benefits				
Program budget (Global Adjustment)				

Distributors are also encouraged to include a forecast of unit costs, such as forecast Program cost per customer acquired or Program cost per unit of peak demand reduction. For measures on the MAL, forecast levelized unit costs of energy and peak demand savings can be generated using the IESO's cost-effectiveness calculator.

[33] As calculated in Section 3.4, Cost-Effectiveness Test. The proportion of benefits accruing to distribution service versus the upstream energy system is calculated based on the full program term, with the same value used for cost allocation purposes in all program years.

Managing Program Costs Within Approved Budget

Once a Program has been approved by the OEB (unless the conditions of approval specify otherwise), a distributor has flexibility to move Program budget between years relative to forecast but, with the exception of the 15% overspending provision discussed below, is expected to manage spending within the Program budget established for the Program term.[34] If a distributor identifies that costs over the Program term are likely to exceed the Program budget established by the IESO's confirmation letter and OEB Program approval, the distributor should either make Program adjustments to reduce costs, or seek an updated confirmation letter from the IESO (and subsequently OEB approval) to support any additional funding requested.

Overspending Provision

An approved Program may have higher participation (and thus higher costs) than originally forecast. To prevent the need for a distributor to suspend delivery of a successful Program in this circumstance, a distributor may request the IESO to amend its contribution agreement to provide additional Global Adjustment funds. If an agreement is reached, a distributor does not need to seek an updated OEB approval, provided that the budget increase does not exceed 15% of the Program budget in the original approval, and that the Program has exceeded its savings target (which may be assessed on an unverified basis). The amended contribution agreement between a distributor and the IESO should confirm that these conditions have been met. The budget increase must be spent on incremental Program expenses (not additional overheads).

For a multi-year Program, a distributor has flexibility to move Program budget between years. Therefore, the 15% overspending provision is calculated based on the multi-year budget. An amended contribution agreement should only been requested if the multi-year budget is expected to be exceeded and the Program has exceeded its savings target for the Program term as a whole.

The Program budget entries shown in Table 4, Program Budget and Allocation of Costs, which are used to establish the requested funding from

[34] An exception is if Program costs are only likely to exceed the Program budget due to likely distributor incentives being higher than forecast in the Program application, as a result of strong Program performance. In this case, a distributor should ensure that Program costs net of distributor incentives remain within budget.

the Global Adjustment and from the distributor, do not include the 15% overspending provision. However, the distributor portion of the 15% overspending provision is shown separately, to identify the maximum amount of incremental funding from distribution rates that a distributor can seek to recover (through the eDSMVA) without requesting an updated OEB approval in advance.

4.3. Incremental Revenue Request

This section of the Program application should identify the incremental revenue request, which is the incremental cost for each year of Program spending that a distributor is requesting to recover (through the eDSM rate rider, trued-up through the eDSMVA). This will typically match the entry "Program budget (distributor portion)" in Table 4, Program Budget and Allocation of Costs, unless the distributor is proposing a revenue adjustment as described below, in which case, the amount of the proposed revenue adjustment should be indicated, with supporting detail as needed to provide the basis of the proposed revenue adjustment.

This section of the application should also include a statement that the distributor will seek to recover Program spending through the eDSM rate rider or the eDSMVA, and that no Program spending is eligible for inclusion in rate base.

Revenue Adjustment

As discussed in the NWS Guidelines, a distributor should identify whether any funding to address the identified system need has been proposed (and not rejected) in a previous rates proceeding.[35] 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.

If an overlapping project (a poles-and-wires solution or an NWS) addressing the same system need has been identifed, a distributor should indicate whether or not a revenue adjustment (e.g., a reduction in the incremental revenue that would be recovered from distribution rates for the Program) is proposed.

[35] Section 3.3 of this Appendix, Alternatives Considered, provides more details on the information that should be provided.

The OEB will not typically consider a revenue adjustment to be necessary, except potentially in circumstances where:

(1) the Program funding request is > 2.5% of a distributor's base revenue requirement,

(2) project-specific funding for the poles-and-wires solution/NWS was specifically referenced in an OEB decision (inclusive of any Settlement Proposal approved by the OEB), or

(3) the Program is the same or similar in nature to a previously proposed (and not rejected) NWS based on eDSM measures.

A distributor may propose that no revenue adjustment is necessary by indicating that none of the circumstances described above are applicable. If one or more of the circumstances described above are applicable, a distributor may either propose a revenue adjustment or propose that no revenue adjustment is necessary, with supporting rationale for the OEB's consideration.

If a distributor is proposing a revenue adjustment, this does not change the overall cost of the Program (or the portion of that cost that is the distributor's responsibility) and therefore does **not** change the amount of Program funding that will be requested through the Global Adjustment.

4.4. Cost Allocation Between Rate Classes

This section of the Program application should propose an approach for how the cost of a Program would be allocated between rate classes, with supporting rationale.

The cost allocation approach should be based on the cost driver(s) that relate to the distribution service benefits of the Program; for example:

- Adopting the cost allocation approach approved in the most recent Cost of Service proceeding (or proposed in the current Cost of Service proceeding, if the Program funding request is filed as part of this proceeding) for accounts for the types of assets/costs the eDSM program is avoiding or deferring.
- Allocating costs based on demand allocators approved in the most recent cost-of-service proceeding, if the system need addressed by the Program is demand-driven.

As Program costs will be recovered entirely through a rate rider and not through a distributor's revenue requirement, Program costs should not be included in a distributor's cost allocation study, even if filed as part of a Cost of Service application.

4.5. eDSM Rate Rider

This section of the Program application should calculate the eDSM rate rider, set at a level designed to recover the incremental revenue request (Section 4.3, Incremental Revenue Request).

If submitted as part of an IRM application, eDSM rate riders may be calculated by dividing the costs allocated to each rate class by the billing determinants in Tab 4 of the IRM Rate Generator Model. Distributors should input the resulting rate riders in Tab 19 – Additional Rates.

If submitted as part of a Cost of Service application, eDSM rate riders may be calculated by dividing the costs allocated to each rate class by the billing determinants for the test year, as determined by the distributor's load forecast model and referenced in the Revenue Requirement Work Form (Tab 10 – Load Forecast). Distributors should input the resulting rate riders in the Tariff Schedule and Bill Impacts model (Tab 4 – Additional Rates).

The term and expiry date of the eDSM rate rider should be identified.

- If approval for a one-year Program is requested, it is expected that the eDSM rate rider would also be for a one-year period.
- If approval of a multi-year Program is requested, applicants may:
    - Request approval of an eDSM rate rider that would be in effect for the entire Program term, calculated so that the rate rider would be set at a level forecast to recover the incremental revenue request over the Program term. It is not required that the forecast revenue recovered through the eDSM rate rider would be calculated to match forecast spending by a distributor in each year of a multi-year Program. In such case, the eDSM rate rider should generally be calculated using a distributor's billing determinants applicable to the first year of Program operation. If a Program will continue through rebasing, a distributor should request a renewed approval for the eDSM rate rider as part of the rebasing application and may request

either that the eDSM rate rider remain unchanged, or is updated based on updated billing determinants.

- Request approval of an eDSM rate rider for a one-year term only, with approval of an updated eDSM rate rider to be requested in subsequent years, in the rate application in which a distributor's annual reporting on the Program is filed. In this case, the eDSM rate rider should be calculated so that forecast revenue recovered would match forecast spending in the one-year term.

Distributors may propose to vary this approach to rate rider design if the eDSM program term does not align with the rate year.

Variances between revenues collected through the eDSM rate rider and Program costs incurred by the distributor will be recorded in the eDSMVA (Section 4.7, eDSM Variance Account).

4.6. Bill Impacts and Mitigation

This section of the Program application should show the incremental bill impact of the eDSM rate rider on the total bill for all impacted customer classes.

If filed as part of a Cost of Service application or IRM application, the impact of the eDSM rate rider should also be included in the distributor's overall analysis of bill impacts and rate mitigation that the OEB requires for these rate applications (the eDSM rate rider should be included in Subtotal A for bill impact analysis).

The OEB requires a distributor to file a mitigation plan if total bill increases for any customer class exceed 10%. If a mitigation plan is required as a result of the rate application, any mitigation measures in the plan that relate specifically to the Program or design of the eDSM rate rider should be noted here.

4.7. eDSM Variance Account

This section of the Program application should confirm a distributor's intent to make entries in the eDSM Variance Account (eDSMVA) related to the Program, upon Program approval, and note any additional factors that are relevant to the use of the eDSMVA.

The OEB has established a generic eDSMVA, including sub-accounts. Separate sub-accounts should be used if a distributor has more than one Program using the eDSMVA. Key features of the eDSMVA are described below. The rate order establishing the eDSMVA provides additional details and an illustrative example, including sample accounting journal entries.

The eDSMVA is to be used to record the variance between actual eligible distribution Program costs and amounts recovered through the eDSM rate rider.

Actual eligible distribution Program costs are further calculated as follows:

- Actual Program costs (inclusive of distributor incentives based on final EM&V results) minus: any revenue adjustment used to reduce the Program's incremental revenue request (see Section 4.3, Incremental Revenue Request), minus: sum of all Program settlement payments from/to the IESO.

Entries to the eDSMVA may be made:

- During Program operation, to record variance between actual eligible distribution Program costs (inclusive of forecast distributor incentives embedded in the eDSM rate rider) and amounts collected through the eDSM rate rider.
- At Program close-out, based on final information on actual eligible distribution Program costs (inclusive of distributor incentives, based on final EM&V results), and accounting for final Program settlement payments with the IESO (as discussed below).

Disposition of eDSM Variance Account

The eDSMVA is classified as a Group 2 variance account. A distributor should seek disposition of the eDSMVA at the distributor's next Cost of Service application following the end of the Program, after final Program EM&V results have been provided by the IESO. A distributor is not precluded from requesting earlier disposition of a balance in the eDSMVA through a rate application if the balance is material, but disposition would typically be on an interim basis, as information on eligible Program costs is dependent on final Program information and EM&V results that would not be available until Program close-out. Development by the distributor of a realistic Program

budget and the subsequent review by the IESO and the OEB is intended to reduce the likelihood of large balances accumulating in the eDSMVA.

Final settlement between the IESO and a distributor should be completed before seeking disposition of the eDSMVA. The final settlement will account for changes in final Program costs due to eligible distributor incentives, as determined by final EM&V results. This variance is allocated between a distributor and the IESO in proportion to distribution benefits versus upstream energy system benefits, using an updated calculation of benefits based on actual Program results that make use of the IESO's Program EM&V. This could result in a payment from the distributor to the IESO, or vice versa.

A distributor is expected to follow the general requirements for DVAs (as described in Exhibit 9: Deferral and Variance Accounts of the Chapter 2 Filing requirements) with respect to the eDSMVA. Additional guidance specific to the eDSMVA is provided below.

A request for disposition of the eDSMVA upon Program close-out is expected to include similar information as to what has been provided in annual reporting, including final information on:

- Actual Program spending relative to that forecast in the Program budget in the original OEB approval, including eligible distributor incentives, as determined by final EM&V results).
- Global Adjustment funding received from the IESO.
- Revenue recovered from the approved eDSM rate rider, and the associated balance in the eDSMVA (for the relevant sub-account).
- Actual Program participation and peak demand/energy savings, relative to forecast/target.
- All IESO EM&V reports, including final Program cost-effectiveness results.

A distributor requesting disposition of the eDSMVA should also provide:

- A variance analysis explaining discrepancies between forecast and realized outcomes, including an analysis of whether and how the original system need has been addressed due to the Program.
- Lessons learned and potential recommendations for future Program enhancements.

The eDSMVA is symmetric and disposition is not subject to a materiality threshold. Disposition is subject to prudence review.

  - As noted in Section 4.1, Distributor Incentives, the forecast cost of a distributor incentive would be embedded in the eDSM rate rider, with final incentive amounts trued-up based on actual Program results that make use of the IESO's Program EM&V, and awarded by the OEB through disposition of the eDSMVA.
- As noted in Section 4.2, Program Budget and Cost Allocation Between Global Adjustment and Distributor, distributors are permitted to spend up to 15% above the approved Program budget to facilitate continued delivery of a successful program, without seeking an updated OEB approval, under defined conditions. The OEB may consider whether these conditions were met in determining whether any overspending is eligible for recovery through the eDSMVA.

When requesting disposition of a balance in the eDSMVA, a distributor should request approval of an eDSMVA rate rider. While distributors are requested to propose an approach for how the forecast cost of the Program, recovered through the eDSM rate rider, would be allocated between rate classes based on cost drivers (see Section 4.4, Cost Allocation Between Rate Classes), the allocator for the eDSMVA balance, recovered through the eDSMVA rate rider, is distribution revenue.