



Cost of Service Orientation

For 2027 and 2028 Filers

March 26, 2026

Housekeeping Items

- Please mute yourself when entering the meeting.
 - Participants will be able to unmute themselves if they wish to speak.
- To ask questions or provide comments, please use the chat feature.
 - Address questions to *All Participants*.
- When the moderator calls your name, ask your question via audio by unmuting yourself.
- Please state your name and organization when speaking.
- Turning on your video is optional.
- This session will be recorded and made available at a later date.
- If you are having problems, please contact OEB IT: ITHelp@oeb.ca

Agenda



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Land Acknowledgement

The Ontario Energy Board acknowledges that our headquarters in Toronto is located on the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples. This area is now home to many diverse First Nations, Inuit and Métis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

As we gather, we acknowledge that we are coming together from diverse regions, each with its own Indigenous peoples, ancestral lands, and treaties. We recognize and honour the Indigenous communities, their elders, past and present, as the traditional custodians of these lands.

We are grateful for the opportunity to gather and work on these lands and recognize our shared responsibility to support and be good stewards of them.

Commissioner's Welcome & View on What Makes a Good Application

**Patrick Moran
OEB Commissioner**

View on What Makes a Good Application



Office of the Registrar

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Overview

- 1 Organization and Role of the Registrar's Office**
Including the Registrar's Office staff with whom you may have direct contact
 - 2 Illustrative Adjudicative Proceeding**
Indicating steps with Registrar's Office involvement
 - 3 Electricity Distribution Filing Requirements Chapter 1**
Things to know
 - 4 Small Distributor Process for COS Applications**
Eligibility criteria and process
-

Organization and Role of the Registrar's Office

Office of the Registrar

Applications Administration

Regulatory Administrators

- Receive documents from applicants and others
- Manage records, including:
 - ✓ Confidentiality
 - ✓ Publicly available
- Prepare and issue OEB documents
- And more...

Applications Adjudication

Hearings Advisors

- Provide “front end” support for the Case Manager on applications that are under panel authority, including:
 - ✓ Completeness
 - ✓ Notice
 - ✓ P. O. No. 1
- Coordinate adjudicative events
- And more...

Regulatory Projects

Advisors & Coordinators

- Identify and pursue process improvements
 - ✓ Business process mapping
 - ✓ 10-Point Action Plan
- And more...

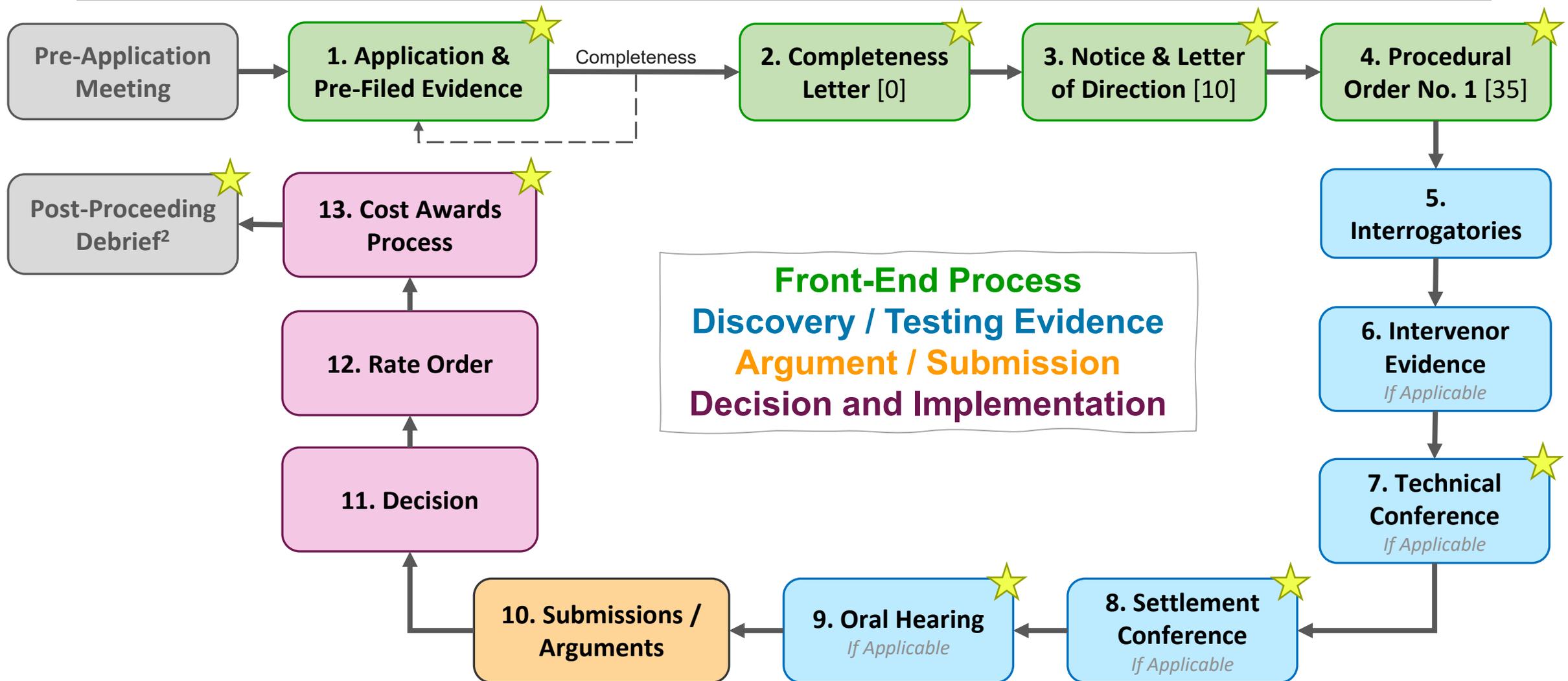
Indigenous Relations

Manager & Elder in Residence

- Support case teams (e.g., interrogatories, submissions)
- Build relationships (e.g., participate in events)
- Improve processes (e.g., advanced funding)
- And more...

Illustrative Adjudicative Proceeding

Illustrative Adjudicative Proceeding¹



1. A similar process is used for most application types that are decided by a panel of Commissioners. The procedural steps and durations differ by application type.
 2. Conducted after the 20-day Notice of Motion period elapses.

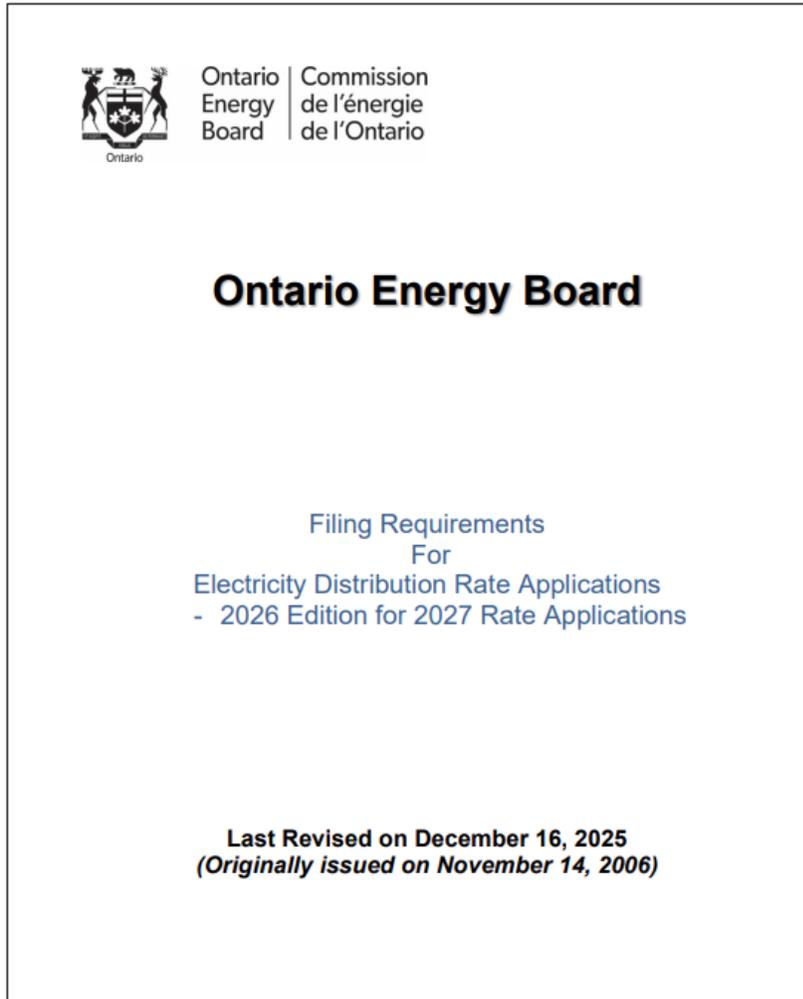
Performance Standards¹ and Case Schedules²

Performance Standard	Procedural Order No. 1 ³ (Calendar Days)	Decision Writing Time ⁴ (Calendar Days)	Total Cycle Time ⁵ (Calendar Days)
Cost Based Rates <\$500 million Revenue Requirement	35	60	230
Cost Based Rates >\$500 million Revenue Requirement	60	90	355
Complex Incentive Rate Making (or stand-alone requests)	35	60	165
Accounting Order	35	35	125

1. More information on the OEB's performance standards is available on the OEB's [website](#).
2. The case schedules for major applications that are before the OEB are published on the OEB's [website](#).
3. Days between Completeness Letter and PO No 1 issuance.
4. Days between close of record and decision issuance.
5. Days between Completeness Letter and decision issuance.

**Electricity
Distribution Filing
Requirements
Chapter 1**

Filing Requirements Chapter 1



- The **Filing Requirements for Electricity Distribution Rate Applications** are available on <https://www.oeb.ca>, Regulatory Rules, Rules and Codes, Filing Requirements
- Chapters 1, 2 & 5 are updated as required.
 - Chapter 1 outlines generic procedural matters and the expectations of the OEB for parties participating in electricity distribution rate-setting processes
 - Chapter 2 – Cost of Service applications
 - Chapter 5 – Distribution System Plans

Filing Requirements Chapter 1

Completeness

- Information that is required by the Filing Requirements and the absence of which impacts the OEB's ability to issue Notice must be filed before the OEB will issue a completeness letter, otherwise an incomplete letter may be issued (and the application may be placed in abeyance¹)
- Information-required by the Filing Requirements but that does not affect Notice must be filed before the OEB issues Procedural Order No. 1
- OEB staff will work with the applicant to address any issues with completeness, and may set a schedule for the filing of the missing information based on its necessity

Updating and Application

- Updates are only made if there is a material change to the evidence

Interrogatories

- The purpose of the interrogatory process is to test or further clarify the evidence, and it should not be necessary to seek information that ought to have been provided in the original application

Materiality

- It is expected that parties will not engage in exploration of items that are not material
- Refer to the materiality thresholds in the filing requirements

1. Refer to the OEB's [*Protocol for Adjusting Adjudicative Timelines*](#)

Filing Requirements Chapter 1

Confidential Information

- The OEB relies on complete disclosure of all relevant material and distributors should make every effort to file all material publicly and completely
- Distributors and other parties can request confidential treatment in accordance with requirements of the OEB's [Practice Direction on Confidential Filings](#)
 - Unredacted confidential version
 - Redacted public version
 - Cover letter that explains the reasons for the request
 - A summary table
- Sometimes documents are filed as evidence that have “Confidential” stamped on them or written in a header / footer
 - Indicate whether they truly are intended to be treated as confidential

Filing Requirements Chapter 1

Certifications and Disclosures (made by a senior officer and governing body of the distributor)

- ***Personal Information.***

- The OEB does not expect that personal information needs to be filed. The onus is on the distributor to ensure that the application / evidence does not include any personal information (unless in accordance with Rule 9A or Practice Direction). This requirement equally applies to interrogatory responses.

- ***Certification of Evidence.***

- That the evidence filed is accurate, consistent and complete (to best of knowledge) and that appropriate processes and internal controls are in place for the preparation, review, verification and oversight of deferral and variance account balances being disposed. A letter from the governing body (e.g., Board of Directors) is also required to certify that it is aware of and approves the submission of the application.

- ***Use of Generative AI.***

- The use of generative AI to generate content in the filing must be disclosed and that the accuracy of the content has been confirmed without the use of generative AI.

Small Distributor Process for COS Applications

Small Distributor Process for COS Applications

- Follows from the **Very Small Utility Pilot Project**
- In December 2025, the OEB announced the **Small Distributor Process**
- The process includes a **one-day Issues Meeting** before the discovery process to streamline the review of the application, identify key issues for discovery or to discuss the possibility of eliminating a formal discovery process and moving directly to a settlement conference
- Process is automatically applied to very small electricity distributors (<5,000 customers) and is available upon request for qualifying small electricity distributors (between 5,000-30,000 customers) according to criteria that are now included in Chapter 2 (2026 edition for 2027 applications)

Small Distributor Process for COS Applications

Qualifying Criteria (all must be true)

- Subtotal A bill impacts are less than 10%
- Total bill impacts are less than 10%
- There is no request for an Advanced Capital Module or a true-up of a past Incremental Capital Module
- Based on past applications of a similar nature, there are expected to be three intervenors or fewer in the proceeding
- Requests for an investment(s) in unique or emerging areas such as non-wire solutions, electric vehicles, Distributed Energy Resources, electrification, Vulnerability and System Hardening, or similar matters
- The evidence does not raise unique issues or requests that have not been previously adjudicated by the OEB in a cost of service proceeding

Filing Requirement Updates – Chapter 2 and 5

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General Overview of Changes to Filing Requirements and Related Matters for 2023-2027 Distribution Rates – Chapters 2 and 5



Working Groups:

Review of filing requirements for very small, small, and large distributors



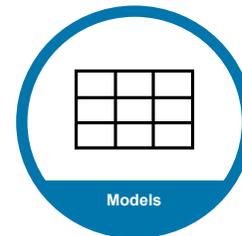
Supplemental Documents:

- List of key references and cost of service flowchart moved to Filing Requirements



General Edits:

- Sections moved to improve flow
- General edits for clarity, accuracy and the removal of outdated information
- Emphasis on quality over quantity and level of detail should reflect the scale of the request
- Removed redundant variance analysis requests and other requirements



Appendices and Models:

OEB Model passwords will be provided if distributor prefers this option, explanation required by distributor for any changes

Chapter 2 - General and Exhibit 1 Updates (2023-2027)

General

Section 2.0 & 2.1.4 & Other

- Requirements may differ depending on size of the applicant (2023)
- Required certifications / confirmations moved to Chapter 1 (2027)
- Small Distributor Process eligibility (2027)

Materiality

Section 2.0.8

- Clarified how materiality threshold applied (2024)
- Threshold restored to \$50k for distributors with base revenue requirement \leq \$10M (2026)

Customer Engagement

Section 2.1.6

- Requirements consolidated and clarified in Exhibit 1 (2023)
- Evidence should provide how customer feedback has informed the utility's planning process - ongoing, application-specific (2024)

Performance Measurement

Section 2.1.7

- Provided clarity on the expectation with respect to Activity and Program-based Benchmarking (2024)
- Distributor to provide explanation of significant change (20%) (2026)

Chapter 2 - Exhibit 1 Updates Continued, and Exhibit 2 (2023-2027)

Facilitating Innovation	Financial Statements	Consolidation	Rate Base	Capitalization Policy
<p>Section 2.1.8</p> <ul style="list-style-type: none">• Clarified distributors should include costs, expected benefits and associated risks of innovative alternatives (2024)• Updated requirements for NWS Guidelines and BCA framework; emphasized the use of NWS (2026)• Added reference to OEB's March 2025 letter (2027)• Added reference to DSC amendments re: margin on payments incentive related to the use of third-party DERs as non-wires solutions (2027)	<p>Section 2.1.9</p> <ul style="list-style-type: none">• Restored requirement to reconcile audited financial statements which are no longer part of reporting and record-keeping requirements (2026)	<p>Section 2.1.10</p> <ul style="list-style-type: none">• Provide information on consolidation / collaboration opportunities (2023, 2024)• Updated MAADs Handbook issued in July 2024 (2026)	<p>Section 2.2.2</p> <ul style="list-style-type: none">• Removed redundant analysis of rate base by high voltage, distribution, and general plant groupings (2024)	<p>Section 2.2.8</p> <ul style="list-style-type: none">• Confirmation required that a distributor has not made any changes to its capitalization policy since last rebasing (2024)

Chapter 2 – Exhibit 3, 4 & 5 Updates (2023-2027)

Load Forecast

Section 2.3.1.3

Integrated Energy Plan (IEP)

- Multiple demand scenarios pursuant to items 2.1 and 2.2 of the directive to the OEB re: the Government of Ontario's IEP (2027)
- Distributors should incorporate requirements into their applications on a best-efforts basis by June 30, 2026
- Applications filed after April 1, 2027, must include these requirements

OM&A

Sections 2.4.3.1 & 2.4.3.4

- Explain the basis on which pension and OPEB amounts are forecasted (2024)
- Clarified requirements for regulatory one-time / ongoing costs (2026)

NWS Costs

Section 2.4.4

Revenue Requirement:

- Costs for NWS programs; costs for ancillary activities related to NWSs (e.g., system planning) (2026)
- Statement confirming that no costs for supporting IESO programs funded under eDSM are included (2027)

Cost of Capital

Section 2.5

- Reflected OEB findings and evidence requirements stemming from OEB decision in generic proceeding - cost of capital and other matters (2027)

Chapter 2 – Exhibit 6, 7, 8 & 9 Updates (2023-2027)

Accelerated CCA

Section 2.6.2.1

- Revised requirements related to the status of the Accelerated Investment Incentive Program (2027)

Standby Rates

Section 2.7.1.2

- Reference to OEB letter issued in March 2024 which outlines OEB's expectations for standby rates (2026)

Retail Transmission Service Rates

Section 2.8.2

- Updated for OEB's March 2025 *RTSR Guideline* (2027)
- Electric Vehicle Charging (EVC) Rate
 - OEB encourages distributors to propose updated RTSRs underpinned by updated cost causation data in rebasing proceedings

Accounting Matters

Various Sections

- Removed repetitive requirements
- Updated references to Accounting Guidance documents
- Updated for generic accounts established by the OEB
- Added guidance on the two-year limitation period for certain IESO settlements and requirements for exceptions
- For the detail required to support disposition of the COVID-19 Account, refer to the Filing Requirements, 2025 Edition for 2026 Rate Applications (2027)

Chapter 5 – DSP Updates 2023-2026

General

Sections 5.1 and 5.4

- Provide a summary of changes to typical programs
- Include key details from referenced letters
- Should file the most recent regional plan or a regional planning status letter from the transmitter (2024)

Third-Party Communications

Section 5.2.2

- Identify number of consultations
- Summary of manner in which distributor determined with whom to consult.
- Summary of the results of the consultations.
- Statement whether the results of consultations are reflected in the capital plan (2023)

Material Investment Evaluations

Section 5.4.2.1

- Refocused investment evaluation criteria to demonstrate need/prudence
- Removed category-specific requirements for material investments (2023)

Chapter 5 – DSP Updates 2023-2026

EVs

Section 5.3

- EVs need to be considered in the planning process for future capacity (2024)
- Reference the use of sensitivity analysis (2024)

NWS

Section 5.3

- Added consideration of using NWS for grid optimization (2026)
- Distributors are to provide limitations on distribution feeders for DERs (2024)
- Clarified expectations for NWS activities (2026)

Benefit-Cost Analysis Framework

Section 5.4

- Distributors are to document their consideration of NWSs for electricity system needs over \$2 million, excluding general plant investments, making use of the Benefit-Cost Analysis Framework (2026)

Chapter 5 – DSP Updates 2027

Distributor-Specific Reliability Targets

Sections 5.2.3.3

- New default reliability performance targets calculated based on three components
- Distributors using alternative targets should provide evidence justifying the alternative
- Regardless of methodology, use targets as inputs to projects & programs

Process - Integrated Energy Plan (IEP)

Section 5.3.1.1

- In accordance with the IEP, distributors should incorporate items 2.1 and 2.2 of the IEP into their application on a best-efforts basis.
- Applications filed after April 1, 2027, must include these requirements.

REG & DERs – Integrated Energy Plan

Section 5.3.4

- In accordance with item 15 of IEP, If planning to improve ability to connect additional distributed energy resources in areas with restricted hosting capacity: must include an assessment of potential solutions

Climate Vulnerability and System Hardening (VASH)

Section 5.3.6

- VASH policy: intended to complement existing planning processes, integrating resilience considerations
- Applications filed for 2028 rates must include VASH requirements

Material Investments – Economic Growth

Sections 5.4.2.1

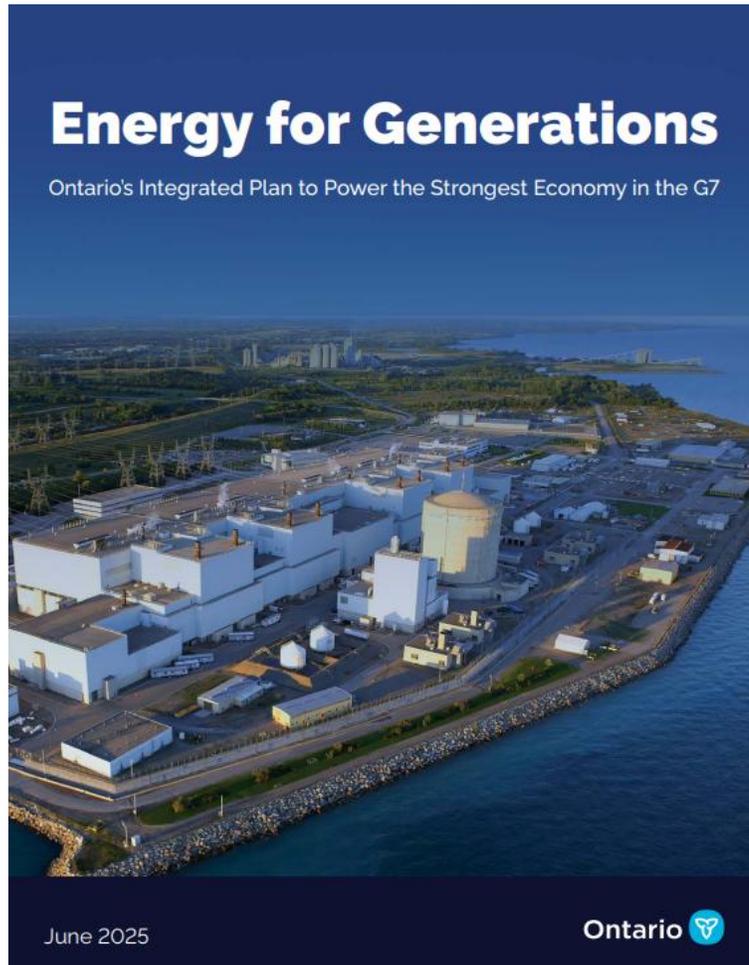
Where a project will support economic growth:

- should provide evidence supporting this assertion
- Provide indication of the relevant economic growth policies of the government of Ontario

Integrated Energy Plan Directive

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Forecast Scenarios – IEP Directive



“Pursuant to the actions identified in Energy for Generations, the OEB is being asked to implement initiatives in the Plan that support planning for growth, more integrated and streamlined system planning and approvals processes, appropriate consideration of the future role of natural gas in Ontario's economy, and greater participation in the energy system, including enabling the cost-effective deployment of distributed energy resources.”

With respect to the Government of Ontario's objective of planning for growth and electrification, the OEB shall ... take the following steps to ensure planning is informed by multiple demand scenarios and best practices in modelling”

from Minister's Directive to OEB

Forecast Scenarios – Filing Requirements

- Directive reflected in Chapters 2 and 5 of 2027 Filing requirements
- For applications filed after July 2026, best efforts basis
- For applications filed after April 1, 2027 (for 2028 rates), mandatory
- Requirements
 - Multiple Load Forecast Scenarios – Reference, Low and High
 - Consider electrification, economic growth projections, weather (heating and cooling)
 - Description of how planning informed by forecast scenarios
 - Including consideration of frequent and/or extreme weather impacts on infrastructure plans
 - Information on cost and benefits for any planned fuel switching-related investments
 - Can use modelling done by other parties (eg: Regional Planning) to assess multiple demand scenarios

Economic Growth – New OEB Objective

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Economic Growth – New OEB Objective

Board objectives, electricity

The Board, in carrying out its responsibilities under this or any other Act in relation to electricity, shall be guided by the following objectives:

1. To inform consumers and protect their interests with respect to prices and the adequacy, reliability and quality of electricity service.
2. To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry.
- 2.1 To regulate the electricity sector in a manner that supports economic growth, consistent with the policies of the Government of Ontario.
3. To promote electricity conservation and demand management in a manner consistent with the policies of the Government of Ontario, including having regard to the consumer's economic circumstances.
4. To facilitate innovation in the electricity sector.

Economic Growth – Filing Requirements

- Chapter 5 Update
 - Investments evaluated based on efficiency, customer value, reliability, safety and whether project/program supports economic growth
 - Where the applicant asserts a project supports economic growth, evidence should be provided to support assertion and an indication of the economic growth policies of the Govt of Ontario that are relevant to the project



Non-Wires Solutions and Benefit-Cost Analysis Framework

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Non-Wires Solutions (NWS) Guidelines

Guidance for distributors on alternatives to “poles and wires”

- The [NWS Guidelines](#) provide guidance on the OEB’s expectations for the consideration and treatment of NWS in rate applications for electricity distributors to address system needs.
- Cost of service applications are required to align with NWS Guidelines; the OEB’s Filing Requirements incorporate key provisions.

Non-wires solutions

- Are designed to reduce peak demand and/or avoid the need for infrastructure reinforcement to address system constraints or load growth.
- NWS include electricity demand side management (eDSM), as well as distributed energy resources such as energy storage and distributed/embedded generation.

Non-Wires Solutions (NWS) Guidelines

Key Requirements

- **System planning:** Consider NWS as options to address system needs, and document consideration of NWS for capital investment decisions above a \$2 million cost threshold.
- **Cost-effectiveness evaluation:** If an NWS is a viable option, use the Benefit-Cost Analysis (BCA) Framework to assess whether an NWS or a traditional solution is the preferred option to address the system need. Use of the BCA Framework is now mandatory for such assessments.
- **Incentives to encourage use of NWS:** Apply for a shareholder incentive mechanism, as per the OEB's [Filing Guidelines for Incentives for Electricity Distributors to Use Third-Party DERs as Non-Wires Alternatives](#) (*optional*).
- **Load forecast impacts:** Incorporate expected impact of NWS (e.g., provincial eDSM programs) into load forecast.

NWS in System Planning

- A Distribution System Plan should describe how a distributor has taken NWS into consideration in its planning by considering whether distribution rate-funded NWS activities may be the preferred approach to meeting system needs.
 - Degree of consideration should be proportional to the expected benefits, and will likely vary across distributors, accounting for the size and resources of a distributor.
- Distributors **must** document their consideration of NWS when making investment decisions on electricity system needs with an expected capital cost of \$2 million or more as part of distribution system planning, excluding general plant investments.
 - Conduct a pre-assessment to identify whether there is a reasonable expectation that an NWS may be a viable approach to meeting an identified need.
 - If so, proceed with completing a Benefit-Cost Analysis and document the results to assess its economic feasibility, as described in the BCA Framework.

Benefit-Cost Analysis (BCA) Framework

- The [BCA Framework](#) outlines the detailed methodology electricity distributors are to employ when assessing the economic feasibility of *NWS vs. traditional solutions* in meeting system needs.
- All rate applications filed in 2027 should be fully consistent with the BCA Framework.
 - [BCA Framework Reporting Template](#) included with the Cost of Service rate models.
- Phase Two of the BCA Framework is anticipated to be released in 2026. This update refines and makes the Energy System Test mandatory, and considers societal impact associated with electricity conservation investments.
 - OEB consultation on-going under EB-2023-0125.

Benefits Include:

Customers

Drives cost-effective service.

Distributors

Provides a **clear methodology** to evaluate the cost effectiveness of an NWS.

IESO

Enables engagement with distributors to assess potential broader energy system benefits.

OEB

Enables a **consistent approach** to evaluating the cost-effectiveness of NWSs in rate filings.

Using the BCA Framework

- The BCA Framework consists of a multi-test methodology for selection of solutions to meet system needs:
 - Distribution Service Test
 - Energy System Test

	Distribution Service Test	Energy System Test
Perspective	What maximizes value of distribution service to a distributor's customers?	What maximizes value to provincial ratepayers as a whole?
Potential Benefits	<ul style="list-style-type: none">• Deferral and/or avoidance of incremental distribution capacity• Improved reliability and resilience	<ul style="list-style-type: none">• Deferral and/or avoidance of incremental transmission and/or generation capacity• Non-wires solution energy cost savings

Filing Guidelines: Incentives for Third-Party DERs



Background

- For non-wires solutions, distributors must consider contracting services from third parties (contrast with distributor-owned solutions).
- Distributors are eligible to apply for an incentive, including for third-party solutions.



Filing Guidance

- [Filing Guidelines for Incentives for Electricity Distributors to Use Third-Party DERs as Non-Wires Alternatives](#)
- [Supplementary examples](#) on incentive proposals
- Aims to give sufficient direction to encourage proposals, while leaving flexibility for distributor creativity.



Providing Clarity

- On November 25, 2025, the OEB amended the [Distribution System Code](#) to implement a default Margin on Payment value of 25%, subject to certain requirements.
- The default value is intended to provide greater clarity on the incentive mechanisms available when procuring third-party distributed energy resources.

Treatment of eDSM and NWS in Load Forecast

Distributor Requirements

- Distributors should determine how to incorporate the historical and forecast impacts of eDSM (e.g., provincial eDSM programs) and NWS into their load forecast to make the forecast as accurate as possible.
- Distributors using an eDSM/NWS variable in their load forecast should provide details on what types of eDSM and/or NWS are included, with supporting evidence and methodology for the claimed historical and forecast reductions in electricity consumption and demand. Distributors should identify which IESO data sources are being used in their load forecast (if any).
- Distributors may also propose that no specific eDSM/NWS variable or adjustment is needed, if the distributor is of the view that the impact of eDSM/NWS is suitably addressed through other correlated variables used in the load forecast and/or embedded within historical load trends.

Non-Wires Solutions (NWS) Guidelines

- *Note:* The OEB expects to expand the NWS Guidelines in 2026 to provide guidance on the regulatory treatment of local electricity demand side management (Stream 2) programs.
 - OEB consultation on-going via [EB-2025-0156](#).
 - Timelines and instructions for stakeholder review of draft NWS Guidelines updates will be communicated in due course.

Retail Transmission Service Rates

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RTSR Guidelines

Key updates from Previous guidelines

EVC Rate

- The OEB created an EVC rate for qualifying electric vehicle charging facilities
- Implemented at 17% of the general rate for GS 50 – 4,999 kW rate classes
- The rate is mandatory for distributors to offer, and opt-in for qualifying customers

Host Updates

- Distributors are expected to ensure that the uniform transmission rates are kept up to date through the proceeding, including use of preliminary UTRs and Hydro One ST RTSRs as appropriate.

Cost Causation

- Distributors are now encouraged to update RTSRs based on updated cost causation (12 coincident peak)
- Continued use of the RTSR Workform to scale RTSRs is permitted

Break

10:26AM– 10:41AM

Addressing DER Hosting Capacity Constraints: Potential Solutions

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Background



- June 2025: The Integrated Energy Plan (IEP) [Directive](#) to the OEB requested clearer guidance for electricity distributors on making upgrades to distribution infrastructure in areas with restricted hosting capacity for DER connections.
- July – November 2025: Policy consultations were held with the [DER Connections Review](#) Working Group.
- December 2025: Chapter 5 has been updated, and the requirements would apply to 2027 rate applications submitted in 2026.

Potential Solution Assessment Requirement

Under Section 5.3.4 System Capability Assessment for Renewable Energy Generation and Distributed Energy Resources, the following requirement was introduced:



Pursuant to item 15 of the IEP Directive, and to continue the efforts to update distributed energy resources connections processes, where a distributor plans to improve the distribution system's ability to connect additional distributed energy resources in areas with restricted hosting capacity, the distributor must include in its application **an assessment of potential solutions**, including both infrastructure-based and non-infrastructure-based options.

Factors to Consider

The DER Connections Review Working Group recommended the following factors to help determine which solutions to implement.

Forecast

Forecasts of DER connections to the distribution system



Cost effectiveness

How cost assessment supports the proposed solution.



Strategy

The distributor's broader strategy and plan to relieve various system capacity constraints within its distribution system



New Capacity

Additional capacity and the number of customers who would be able to connect a DER as a result of the proposed solution.



Demand

An estimate of of the current connection demand in constrained areas of the distributor's system.



Vulnerability Assessment and System Hardening (VASH)

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Purpose of VASH Framework

The OEB's VASH Framework establishes a consistent approach for LDCs to:

- **Incorporate climate resiliency** into asset and investment planning
- **Regularly assess vulnerabilities** in distribution systems and operations under severe weather
- **Prioritize customer value** when evaluating resiliency investments

The framework ensures climate-related risks are proactively integrated into system planning and aligned with regulatory expectations.

VASH implementation:

- Best-efforts for 2026 filings (2027 rates)
- Mandatory for 2027 filings (2028 rates)

VASH Framework

1. Conduct a Vulnerability Assessment (VA)

Identify the asset classes and locations most at risk from climate perils such as wind and ice using:

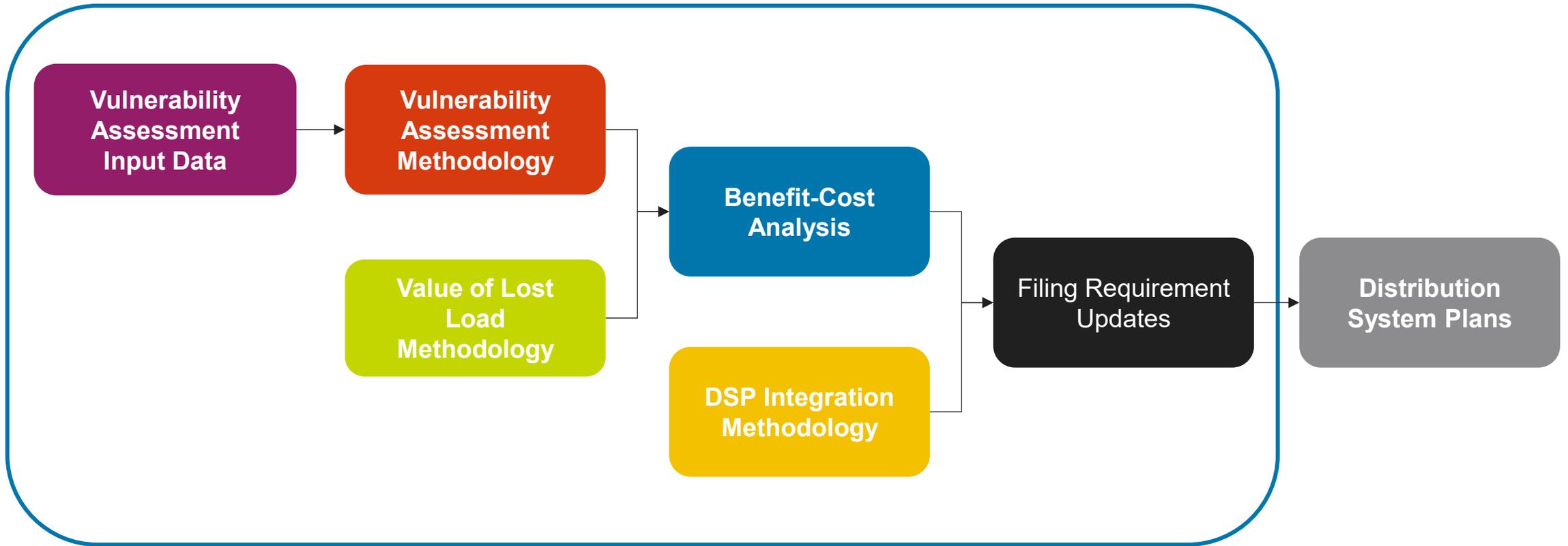
- **Climate projection data**, not historical only
- **Asset-based failure thresholds** (e.g., CSA standards)
- Assignment of vulnerability levels (Low/Medium/High/Very High)

2. Conduct a Benefit–Cost Analysis (BCA)

For asset classes and areas with significant vulnerabilities, evaluate system-hardening measures by:

- Quantifying life-cycle benefits vs. costs
- Assessing customer impacts using **Value of Lost Load (VOLL)**
- Demonstrating investments are aligned with **customer value**

VASH Framework



Two Options for LDCs

1. Generic Option (OEB Toolkit):

- Standardized VA and BCA Excel based models
- Simplifies climate input data sourcing (OEB-provided wind/ice dataset acquired from CSA and Environment and Climate Change Canada)
- Supports consistent and repeatable assessments
- Requires filing completed toolkit with the Distribution System Plan (DSP)

2. Custom Option:

LDCs may develop their own methodologies as long as they:

- Use climate projections
- Apply an asset based, quantitative approach
- Provide transparent assumptions, inputs, and calculations

Integrating VASH Into Distribution System Plan

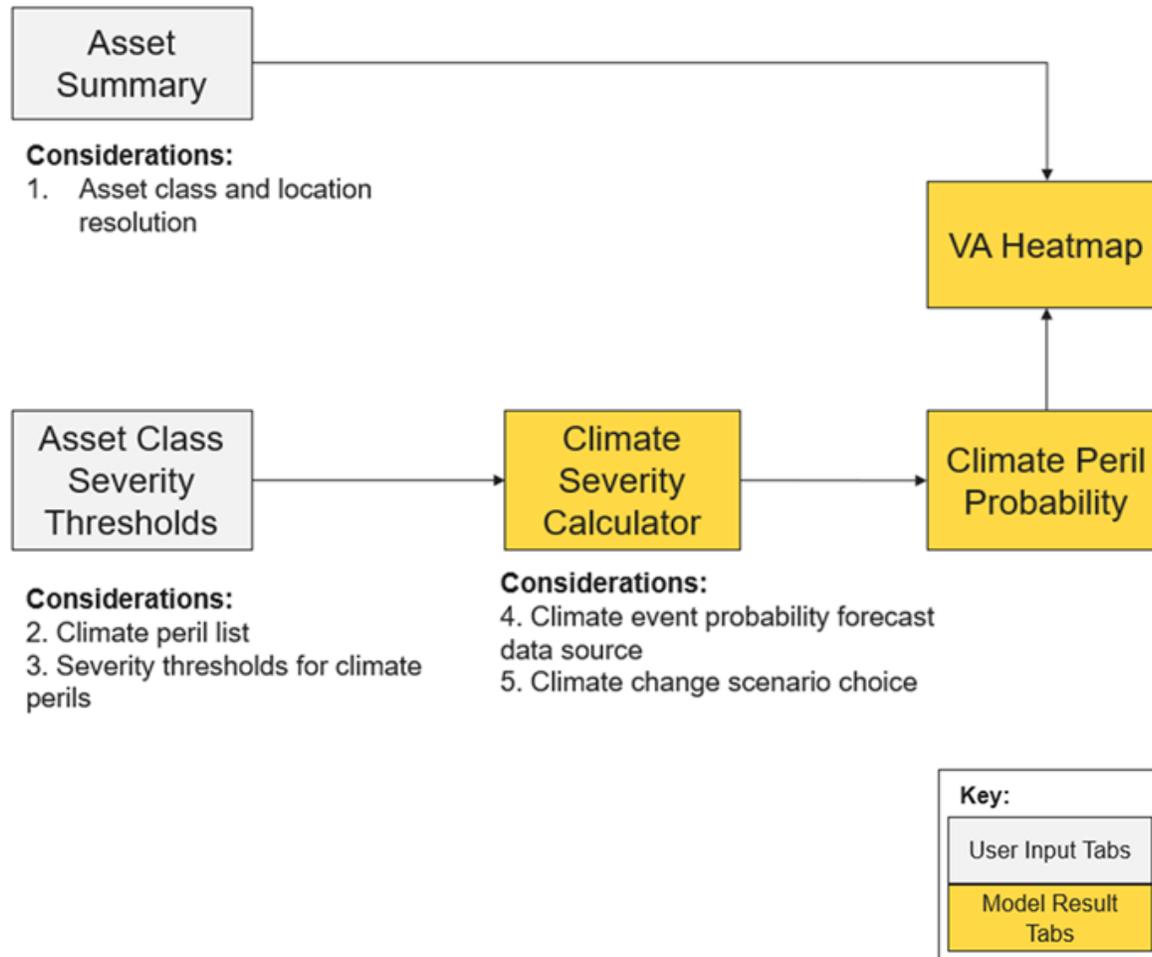
LDCs must embed VASH results into their DSP, ensuring resilience is a core planning driver.

This includes:

- Prioritizing high-risk assets and locations
- Linking VA findings to capital plans
- Demonstrating how system hardening projects meet the customer value criterion

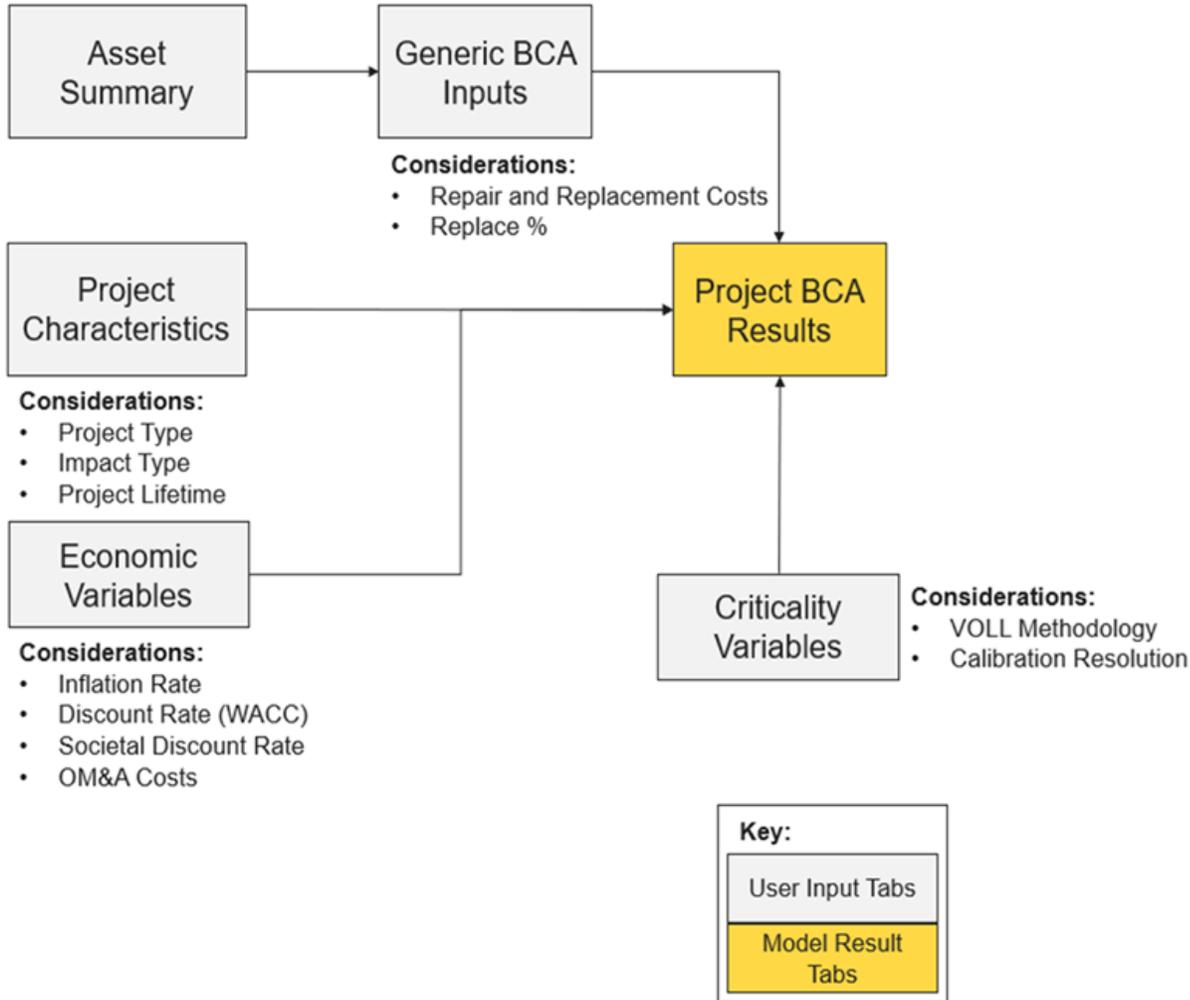
System hardening projects fit within existing DSP categories (primarily System Service, unless triggered by another driver).

Vulnerability Assessment (VA) Toolkit (Tabs 1-5)



- Uses asset data + climate projections + design standards to determine asset vulnerability.
- Supports inputs from internal LDC data, CSA standards, and climate datasets.
- Produces a vulnerability heatmap to highlight priority locations for further analysis and potential hardening.

Benefit-Cost Analysis (BCA) Toolkit (Tabs 6-8)



- Evaluates targeted system-hardening options at locations identified in the VA.
- Calculates lifetime benefits, costs, benefit-cost ratio, and expected reductions in customer minutes of interruption.
- Uses asset information, project details, cost assumptions, and VOLL values derived from US Department of Energy’s Interruption Cost Estimate (ICE) Calculator.

Ratepayer Group's Perspective

Mark Rubenstein, School Energy Coalition
Lawrie Gluck, Consumers Council of Canada

Ratepayer Groups' Perspective

2026 OEB Electricity Distributors Cost of Service Orientation

March 26, 2026

Mark Rubenstein, Shepherd Rubenstein
SEC Regulatory Counsel

Lawrie Gluck, North End Consulting
CCC Consultant

School Energy Coalition

- Project of the Ontario Education Services Corporation
- Coalition of seven school board organizations
- All public school boards are active members
- 5000 schools with 2 million students
- Spend ~\$500 million per year on energy
- Details posted on the OEB's website

Consumers Council of Canada

- Federally incorporated non-profit
- Pursues an efficient, equitable, effective and safe marketplace for Canadian consumers
- Engages consumers directly through its Public Interest Network
- Represents residential consumers in OEB processes
- Details posted on the OEB's website

Electricity Ratepayer Groups

- Active ratepayer groups in LDC applications:
 - Almost Always – VECC (always), SEC
 - Sometimes – AMPCO, CCC, CCMBC, BOMA, DRC
- Occasional participation by non-ratepayer groups – Pollution Probe, Environmental Defence, PWU, Energy Probe, Indigenous communities
- Intervenor Representatives: Experienced lawyers and consultants
- Work collaboratively

Why are we all here

- Distribution utilities are a monopoly business
- Regulation as a substitute for competition – OEB as market proxy
- Each ratepayer group represents a segment of your customer base
- To review, probe, and test the reasonableness of your application
- To act as the counterweight - the OEB needs to hear other perspectives on your application, which (generally) seeks to raise captive customers' rates
- Significant asymmetry of information between utility and intervenors/OEB

The review starts before we open the application

- Previous applications, settlements, and decisions
- Local newspaper, presentations to shareholders (city councils), google searches, your website, etc.
- Understanding unique issues in the community the distributor serves
- How do you already compare to industry trends (rates, yearbook data, etc.)

What we hope to see in your application

- A detailed explanation of your planning process
 - Regulatory application and process, should be intertwined with your business planning process, not separate
 - How do you set priorities and budget, and do you manage resources and demands?
 - How do you consider customer preferences and rate impacts? Show us trade-offs.
 - Show us where benchmarking and comparative data enter into your planning process
- Explain to us the challenges your LDC is facing
 - Show investigation and analysis
 - Thoughtful plan to deal with them
- Metrics and targets: What do you measure success against?
- Show us the value for money of your proposed investments
 - Demonstrate why the investment is worth the added cost
 - It is not enough to show each individual investment is appropriate or reasonable. Need to explain why in the aggregate they are reasonable.
- Quality over quantity

How we review the evidence

- Planning Documents
 - Strategic/business plan, shareholders' agreement/direction, budget guidance documents
 - Financial statements, rating agency reports
 - Distribution System Plan, Asset Condition Assessment
 - Comparative data and benchmarking
 - Rates and revenue requirement trends
 - Bill impacts
 - Past applications: Have you done what you said you were going to do?
 - Financing strategies/approach
- Projects and programs
 - Business cases (Capital and OM&A)
 - Third-party reports and analysis (as required)
 - Variance analysis, expense trends, Chapter 2 Appendices
 - Benchmarking
 - Individual issues facing your specific utility – what are they and what is your plan
- The nitty-gritty
 - Continuity schedules, depreciation, revenues (load forecast and offsets), PILS, cost allocation and rate design, D&V accounts, accounting issues

Comparative data is very important

- Internal and external benchmarking
- Valuable diagnostic tools
 - Identify potential problem areas
 - “Outcomes-based” analysis
- Comparative rates
- Rate Base and Capital Spending
 - e.g. unit costs trends, ACA analytics, capital additions/depreciation ratio
- OM&A Metrics
 - e.g. unit cost trends, compensation information, OM&A per customer
- Activity and Program Based (APB) Benchmarking Initiative
- Reliability Performance Targets (new for rates effective beginning in 2027)

Filing Requirements

- Evidence should reflect scale of the request
 - “As the onus is on the applicant to present its own case, distributors should provide in their application the information necessary to support its request for just and reasonable rates. The level of detail required should reflect the scale of any request. While all components of the application must be justified, the expectation regarding the level of information filed in support should reflect the scale of the request in terms of its materiality, complexity, variance from previous applications or plans, deviation from OEB policy, and impact on revenue requirement and customers’ bills.” (Chapter 2, p.1)
- Pay attention to what the Filing Requirements actually require
- No requirement to retain expensive consultants to write your DSP or for customer engagement activities

Process - Interrogatories

- The purpose of the interrogatory process is to test the evidence
- What are we looking for?
 - Explanations
 - More detail
 - Updated numbers (as applicable)
 - Documents referred to (or omitted)
 - Missing data, steps, or confusion
 - Underlying data
 - Scenarios, “stretch testing” the assumptions and numbers
- If you do not understand the question or cannot provide the information we have asked for, pick up the phone or email

Process - Technical Conferences/Clarification Questions

- Technical Conference
 - Allows for follow-up on interrogatory response
 - OEB is generally not scheduling them anymore for non-Custom IR cases
 - Allows for Applicant to correct the smaller issues
 - Model Technical Conference is a dialogue, but expect direct questions
 - Virtual Technical Conferences
- Settlement Conference Clarification Questions
 - Provided to LDC a few days before settlement conference
 - Clarifying outstanding important issues that are required for settlement
 - Hope is responses provided before start of the settlement conference
 - While part of the settlement process, expectation is that answers are put on the record by agreement

Process - Settlement Conferences

- Process
 - Exchange of information/dialogue
 - Intervenor caucus
 - Offers back and forth
 - Documenting any agreement
- Offers
 - Issue by issue
- Settlement of other issues
 - Asset management plans and longer-term issues
 - Metrics and targets
 - Cost allocation and rate design
 - Deferral and variance accounts

Process - Settlement Conferences

- Ratepayer group point of view
 - Negotiation before the negotiation
 - Goal is to achieve a fair compromise
 - Result by agreement vs. result by decision
 - Settlement Conference positions vs. hearing/argument positions
 - Uncertainty about the interpretation and application of OEB policies and principles
- How to get there
 - Willingness to compromise/listen – on both sides (very important)
 - Hearings can lead to rough justice - settlements allow for parties to control the outcome versus uncertainty of an OEB decision
 - Creative solutions to difficult problems
- Virtual Settlement Conferences have worked well

Process - Oral Hearings

- Pre-Oral Hearing Questions
 - Sometimes if the questions are going to be technical or data-heavy questions, they may be provided in advance to limit undertaking requests and down hearing down unnecessarily
- Cross-examination
 - We want to challenge the assumptions in the application
 - The real testing of the evidence
- Advice
 - Credibility not easily lost, but also not easily regained
 - Pay close attention to questions from the Commissioners
- In-Person/Hybrid hearing preferred over virtual

Consistent Issues

- Implementing the goals of the RRF
 - Outcome focus – How do metrics and targets drive performance?
 - Demonstrating value for money and continuous improvement
 - Use of benchmarking internally
- Robust capital planning
 - Past underinvestment or past significant investment – what is the end state?
 - Using an age not condition-centric asset replacement strategy
 - Pacing of expenditures throughout the DSP
- Customer engagement
- Customer growth or decline – how is this impacting your plan?
- Disconnect between load/connections forecast and capital plan

Recent and Emerging Issues

- The future may (will) look very different than the past with electrification of load and EV adoption
 - Impact on load forecast
 - Filing Requirements now require distributors' planning process to consider future capacity needs, including increased adoption of EVs
 - How to appropriately pace these expenditures
- Implementation of Report on System Expansion for Housing Developments
- Non-Wires Alternatives
 - Filing Guidelines for Incentives for Electricity Distributors to Use Third-Party DERs as Non-Wires Alternatives
 - Benefit-Cost Analysis Framework for Addressing Electricity System Needs
 - Non-Wires Solutions Guidelines for Electricity Distributors
- New objective to the *OEB Act*: “.....support[ing] economic growth, consistent with the policies of the Government of Ontario”
- Managing affordability and rate impacts in an environment of increasing cost pressures

Tips to make the process smoother

- Take the time necessary to ensure the numbers are correct and consistent
 - The more times you repeat yourself the greater the chance of an inconsistency
 - Spending extra time on the front end to save time on the back end
 - Ensure consistency of numbers across models (and tabs)
 - Cost Awards Budgets – Intervenors have less time (patience) for having to deal with corrections to numbers and appendices
- Communication is key
 - Send an email or pick up the phone if issues arise
- Make it easy for Intervenors, OEB Staff, and the Commissioners to find information within the pre-filed evidence and interrogatories
 - Bookmark your pdfs and include page numbers
 - Label tables and charts
 - Use the date field in top right-hand corner of the Chapter 2 appendices
- Review the December 2021 changes to the *Practice Direction on Confidential Filings*
- Requirement is to serve interrogatory responses on intervenors, not just to notify them they have been uploaded

Thank You

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Cost of Service Models

Tyler Davids and Andrew Frank

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Model Updates

General

- Models are prepopulated with RRR information (can be turned on or off)
- Models can now be entirely unlocked
- Utility's responsibility to check that data is accurate

App.2-AA/2-AB/ 2-BA

- 2-AA: now links all values to 2-AB
- 2-AB: Includes line item for construction work in progress (CWIP)

App.2-K

- Added a footnote requiring a breakdown of management staff, union and non-union, if applicable

App.2-JD

- Created alternate breakdown of OM&A by USoA
- File either 2-JC or 2-JD if less than 30k customers

App.2-M

- Only one-time application costs are to be included in 2-M

App.2-IB

- Removed pre-population of RRR data for customer/connection count as the utility has a choice to use year-end or year-average data

App.2-R

- The Loss Factor calculation has been modified to identify microFIT and other embedded generation.

RTSR Model

- Updated to include the Electric Vehicle Rate Parameter (March 31, 2025)
- Utilities are encouraged to review and update the cost allocation basis for their RTSRs

Helpful Resources – Samples & Training

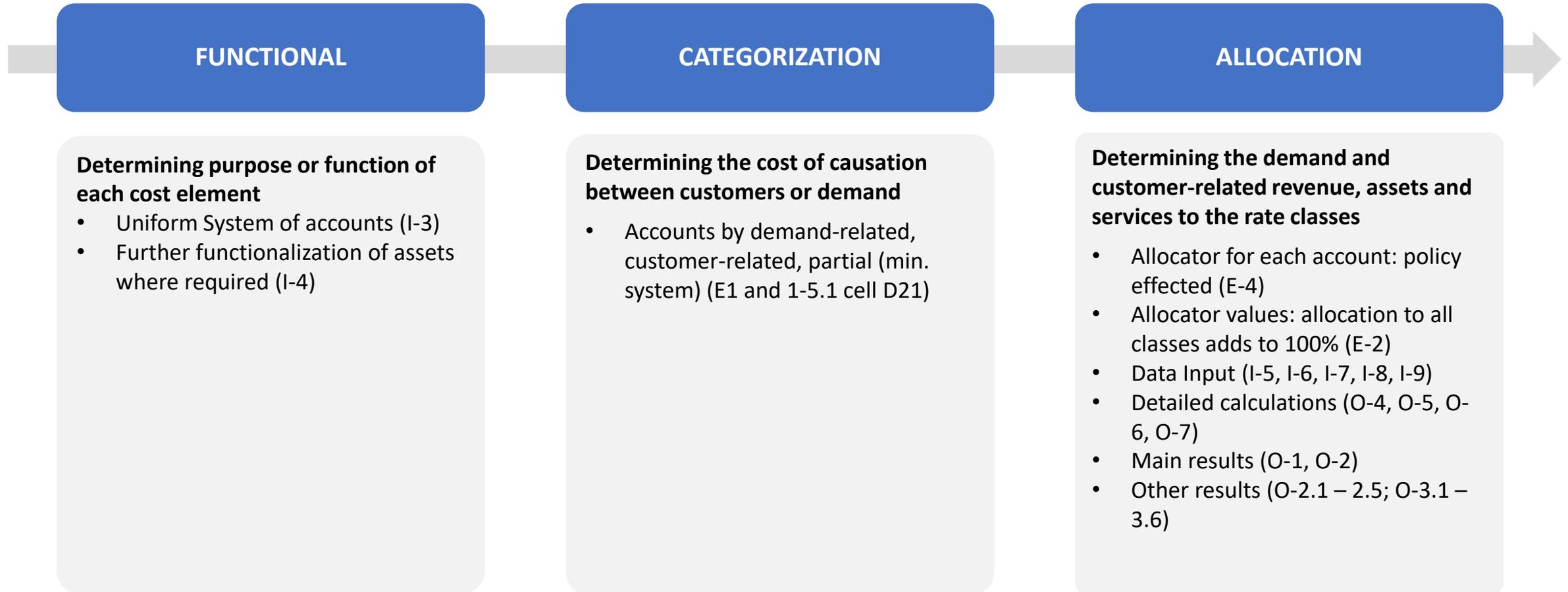
Distribution System Plan & Normalized Average Use per Customer Forecast Samples

- Samples developed by Very Small Distributor Working Group; approved by OEB based on 2025 Filing Requirements in March 2024
- Distributors should file a DSP based on the magnitude of its requests and that aligns with the latest filing requirements

Cost of Service Model Training

- Model training provided in September 2025 to Very Small Distributors
- The training is applicable to distributors of all sizes
- Note: the training uses cost of service models developed for 2026 cost of service rates
- Resources available on the [Filing Requirements for Transmission and Distribution Applications](#) webpage

Cost Allocation Framework



Load Profiles

Hydro One prepared load profiles for the 2006 cost allocation informational filing based on 2004 historic loads.

 Underpins Demand Allocators

The requirement to update was introduced with the 2017 rate year and required distributors to either commit to either update then, or commit to an update at next rebasing.

A full cycle has passed; distributors are expected to propose updated load profiles* and recent applications have been including updated load profiles. These have taken the form of a weather normalized load profiles through either a statistical regression, or a historical average.

*Part of 2027 filing requirement update.

Low Voltage Worksheet

Simplifies Low Voltage rate calculation by leveraging RTSR results

New sheet in the RTSR model – builds off the RTSR Connection

Divided into two steps, one table each:

1. First table is free form looking for five years of historic volumes and expense plus bridge and test year forecasted volume and expense.
2. Second table allocates the forecasted low voltage expense among rate classes based on RTSR connection revenue. Need to enter the test year forecasted volume and whether the LV charge is billed on delivered volumes or loss adjusted volumes.

GOTCHA!!! Items to Look Out For

- Chapter 2 Appendices: Distributors are encouraged to fill in the date at the top right of tabs to differentiate between version files.
- Chapter 2 Appendices, tab 2-AA: enter both gross spending and capital contributions. The net capital amount will be calculated automatically and populated in 2-AB.
- Chapter 2 Appendices, tab 2-H: Interest from DVAs should not be included as Other Revenue.
- Chapter 2 Appendices, tab 2-ZB: Update the Cost of Power with the most recent OEB-approved Ontario Electricity Rebate (OER) figure.
- DVA Continuity Schedule, tab 4: Distribution Revenue numbers (column I) should be updated to equal to revenue requirement in column O + Column Y, Tab 13 of the Revenue Requirement Workform.

GOTCHA!!! Items to Look Out For

- Tariff Schedule & Bill Impact Model, tab 1: fill in the effective date field, as this date is populated on the final tariff.
- Tariff Schedule & Bill Impact Model, tab 6: distributors are reminded to hit the Update button on this tab after completing any changes to the model.
- If submitting confidential information, check the redacted version that you cannot select/highlight the hidden info and copy into another document.

Amendments to the Practice Direction on Confidential Filings

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OEB Counsel

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Key Takeaways

- What to File
- Presumptively Confidential Information
- Process for Raising Objections
- Declaration and Undertakings
- Treatment of Personal Information
- Redactions for Non-Relevance

What to File when Requesting Redactions

The Practice Direction specifies what to file when requesting redactions for confidential or personal information, or non-relevance.

When requesting redactions for confidential, personal or non-relevant information, a party must provide:

- A table which includes (i) pinpoint references to each redaction made; and (ii) a supporting explanation for why each redaction should be allowed.
- Two versions of the document:
 - A non-confidential version, where the subject information is redacted; and
 - An unredacted version for review by OEB, which identifies the portions of the documents for which redaction is requested.

The Practice Direction provides further direction on what to file depending on the grounds for which confidentiality is sought, and where redactions are sought on more than one ground.

Presumptively Confidential Information (Part 4)

Specific categories of information, outlined in Appendix B of the Practice Direction, are presumptively treated as confidential.

- Utilities should identify information fitting within one of the “presumptively confidential” categories when filing a confidentiality request.
- Parties or OEB staff may challenge presumptive confidential treatment in accordance with the timelines outlined in the Practice Direction or otherwise determined by the OEB.
- Absent an objection, the information will be accorded confidential treatment, unless the OEB determines the information does not fit within a category.
- The OEB will confirm the confidential treatment by way of a letter or in a Procedural Order.
- Parties may still access the information by filing a Declaration and Undertaking (D&U) – however each individual that wants to see the confidential information must sign the D&U.

Process for Raising Objections (Part 5)

Parties may object to the confidential treatment of information in accordance with timelines established by the Practice Direction or otherwise determined by the OEB.

- Timelines were previously set by Procedural Order, however, following changes to the Practice Direction, Section 5.1.6 now prescribes a default timeline of 5 days.
- The OEB may lengthen or shorten timelines for raising objections in a proceeding.
- When the confidentiality request is made before the OEB's decision on intervention requests, parties and OEB staff can object within 5 days of this decision (typically PO#1).
- The party seeking confidential treatment will have five days to reply to objections.

Acceptance of Declaration & Undertaking (Part 6)

Confidential information is expected to be disclosed to counsel, experts or consultants for a party, provided they have signed a Declaration and Undertaking (D&U)

- A party may object to a person being provided with access to confidential information as part of their confidentiality request.
- If a request for confidentiality is filed before the OEB's determination of intervention requests, the party has 3 business days following the OEB's decision to raise their objection. The person will have 5 days to reply.
- Previously, the Practice Direction contemplated that the party filing a request for confidentiality would have an opportunity to object to the OEB's acceptance of a D&U after the D&U is filed.
- Eliminates the need for the OEB to establish timelines for objections to the acceptance of a D&U.

Treatment of Personal Information (Part 10)

“Personal Information” includes recorded information about an identifiable individual that is of a personal nature, and examples are set out in section 2(1) of FIPPA.

- Personal information is addressed separately from confidentiality requests.
- Personal information will neither be placed on the record nor provided to any party (including a person who signed a D&U).
- OEB staff will review the information to ensure that it is personal information, as defined by FIPPA.
- If further explanation is needed, OEB staff will request the party file such additional explanation on the public record, as necessary.

Redactions for Non-Relevance (Part 11)

Parties may request information be redacted on grounds it is not relevant to the proceeding.

- The OEB will review the redacted information to determine whether it is relevant to the proceeding without submissions.
- If the OEB determines that the information is relevant to the proceeding, any claims regarding confidentiality and personal information will then be considered.
- If the information is not relevant, utilities typically request that the information is “permanently redacted” and only provided to the OEB (i.e. not available to representatives who sign the D&U).





**Thank you for
attending!**

Appendix A – Reliability Benchmarking & Targets

March 2026

Reliability Benchmarking – Methodology

Peer Group Approach - Assign each LDC to a group based on three parameters, region, size and underground assets.

Region	The geographic area covered by a LDC's service area (i.e., southern, eastern, northern, southwestern)
Size	Very Large: number of customers is greater than 300,000 Large: number of customers is greater than 30,000 Small: number of customers is less than 30,000
Underground Assets	High: the percentage of underground assets is greater than provincial median of 40% Low: the percentage of underground assets is less than provincial median of 40%

Performance Targets – Methodology

Baseline

A distributor's previous 5-year average SAIDI/SAIFI

Final Performance Targets

Baseline*[1- (Adjustment 1 + Adjustment 2)]

Adjustment 1

Based on distributor's historical performance (i.e., trend over the past 5 years)

- Threshold for Adjustment 1: degradation trend (i.e., SAIFI or SAIDI trend slope greater than 0.1) assigned 1% adjustment
- Threshold for Adjustment 1: improvement trend (i.e., SAIFI or SAIDI trend slope less than or equal to 0.1) assigned 0% adjustment

Adjustment 2

Based on distributor's benchmarking results AND historical performance

- Below peer group average assigned 0% adjustment
- Above peer group average
 - With improving historical trend: less than 1 standard deviation assigned 0.25% OR Greater than 1 standard deviation assigned 0.5%
 - With deteriorating historical trend: less than 1 standard deviation assigned 0.5% OR Greater than 1 standard deviation assigned 1%

To align reliability targets with a distributor's proposed investment plans, distributors can propose further adjustments to their default targets in rate applications.