



FEBRUARY 22, 2021

Regional Planning Process Review Final Report

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Today's Objective

- Provide an overview of the recommendations from the Regional Planning Process Review stakeholder engagement
- Discuss next steps

Agenda

1. Background
2. Stakeholder engagement
3. Regional Planning Process recommendations
4. Next steps



Background

Kennan Ip, Senior Planner, Transmission Planning

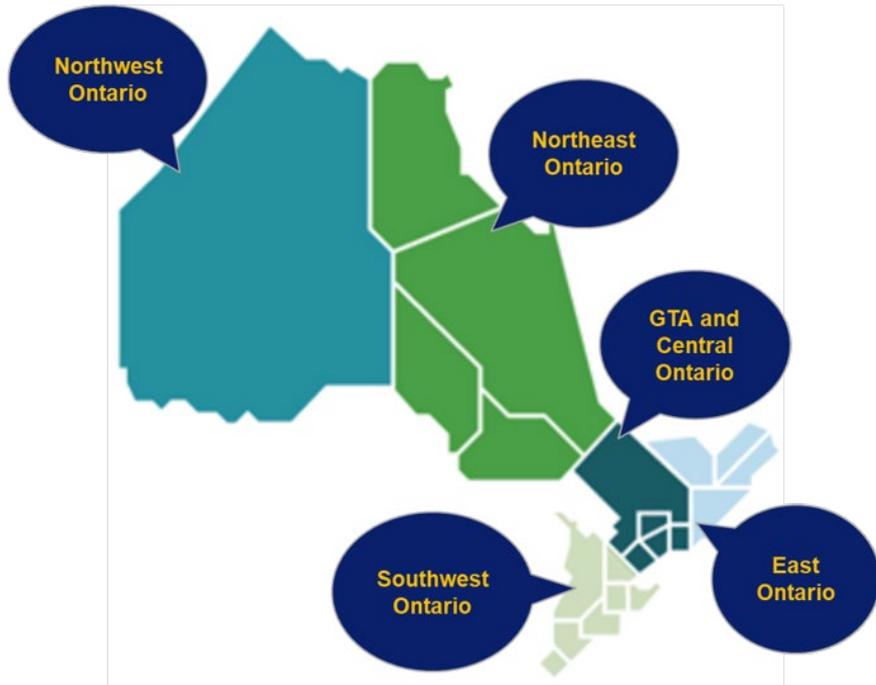
Background

- Regional Planning Process Review (RPPR) stakeholder engagement launched in May 2018, in response to a government directive in 2017
- Regional Planning Review Advisory Group (RPRAG) formed July 2018 to support the Review by providing advice and feedback
- Draft recommendations published February 2020 for stakeholder review and feedback
- IESO responded to stakeholder feedback in July 2020 and considered this feedback in the Final Report, which is the focus of today's engagement

Background (continued)

- The review is now complete with the publishing of the RPPR Final Report in February, 2021
- The report identifies a number of recommendations focused on improving and enhancing the regional planning process

Ontario's 21 Planning Regions



- There are 21 electricity planning regions in Ontario
- Regions are defined by their electrical boundaries and as such differ in size
- The OEB requires this process to be conducted at a minimum of every 5 years for each region

Overview of Regional Planning

Regional planning ensures a reliable supply of electricity to Ontario's 21 electricity planning regions, by looking at the unique needs of each and developing 20-year plans that:

- Summarize electricity system needs and recommend investments or other near-term actions to maintain a reliable supply of electricity
- Support regulatory proceedings (e.g., distribution and transmission rate applications) and acquisition processes, as applicable

Key Elements to Regional Planning

- **Coordination:** Electricity planning happens at the local, regional and provincial level, coordination can result in optimal solutions that meet both local and provincial needs
- **Engagement:** Regional planning includes a strong commitment to public participation and involves Indigenous communities, municipalities, and stakeholders
- **Integration:** After identifying electricity needs and hearing from the communities involved, integrated solutions are developed that can include conservation, transmission, distribution, generation, and other resources (e.g., demand response, distributed energy resources)

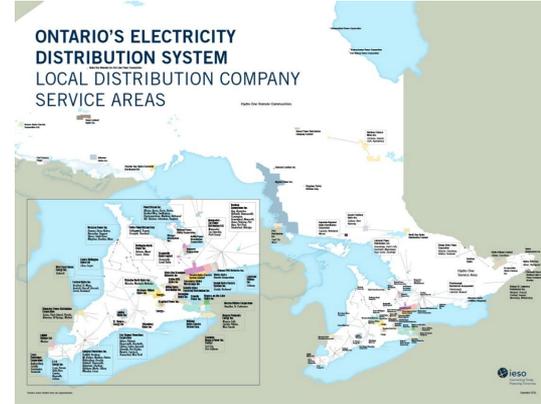
Regional Planning Study Team Participants



Independent
Electricity System
Operator



Lead Transmitter



Local Distributors

Role of the Ontario Energy Board (OEB)

- The Regional Planning Process was developed by the Planning Process Working Group that consisted of industry stakeholders
- While the OEB did not have a direct role in developing the process, the OEB endorsed the process and placed obligations on industry participants by amending regulatory instruments (i.e., Transmission System Code, Distribution System Code, IESO license)
- The OEB established the Regional Planning Process Advisory Group to monitor implementation and make refinements based on lessons learned



Stakeholder Engagement

Stakeholder Engagement

- A stakeholder engagement was launched to seek input from stakeholders and communities and advise on the review of the Regional Planning Process
- The IESO established the Regional Planning Review Advisory Group (RPRAG), including distributors, transmitters, municipalities electricity customer associations, energy providers, to support the review
- Other interested stakeholders were kept informed of the work and invited to provide feedback through a series of webinars

Regional Planning Review Advisory Group

The RPRAG advised in support of the following:

- Key regional planning process areas of focus for enhancement
- Potential barriers to implementing non-wires solutions in regional planning
- Opportunities for potential coordination between bulk system planning, community energy planning, regional planning, and market mechanisms

Regional Planning Review Advisory Group (continued)

- The development of a coordinated, cost-effective, long-term approach to replacing transmission assets at end of life
- Engagement approaches and materials, where appropriate



Regional Planning Process Review Recommendations

Key Focus Areas of Recommendations

Process Efficiency and Flexibility

- Improving the efficiency and flexibility of the regional process through better clarification of steps, streamlining approaches and improved integration and coordination with related processes

End of Life (EOL) Asset Replacement

- Enhancing how transmission facility EOL needs are considered alongside other electricity system needs through evaluation of upcoming EOL needs and screening for opportunities for optimized infrastructure investments

Barriers to Non-wires Alternatives (NWAs)

- Improving how NWAs (e.g., distributed energy resources, energy efficiency) are considered to potentially address regional planning needs

Recommendations

Process Efficiency and Flexibility

1. Streamline and standardize load forecast development

2. Clarify process stages and final products: Integrated Regional Resource Plan (IRRP) and Regional Infrastructure Plan (RIP)

3. Improve integration and coordination of regional planning with related processes

4. Better consider cost allocation during development of a plan

5. Enhance activities occurring between planning cycles



Recommendations (continued)

End-of-Life Transmission Asset Replacement

1. Incorporate end-of-life asset replacement information (long and short lists) as an input to the regional planning process
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Recommendations (continued)

Barriers to Non-Wires Alternatives

1. & 2. Develop tools and methodologies to support need characterization and options development
3. Formalize the stages of the planning process during which NWAs are developed and evaluated
4. Explore non-wires participation in market mechanisms
5. Explore requirements for the operationalization of NWAs
6. Investigate mechanisms for locally targeted energy efficiency
7. Continue testing non-wires performance through Grid Innovation Fund projects
8. Continue capacity building through Grid Innovation Fund projects

Staged Approach to Implementing Recommendations

- Some recommendations can be implemented in the near-term. These recommendations will be prioritized based on the incremental value they offer compared to the work required (examples are listed in the subsequent slides)
- Some recommendations involve material changes to current processes and require further detailed discussions before they can be implemented

Integration and Coordination with Related Processes

- Ensure effective coordination, integration, and consideration of the interdependencies (data sharing, hand-off points, etc.) between regional planning and other related processes (e.g., bulk planning, community energy planning, markets and other procurement mechanisms)
- Better coordination between bulk and regional planning is important as it can lead to optimized solutions addressing multiple needs, this is being prioritized as opportunities exist with ongoing work that can lead to immediate benefits

Note: Bulk planning process is also undergoing a formal review at this time: [Formalizing the Integrated Bulk System Planning Process](#)

Activities Between Planning Cycles

Between-cycle activities should be enhanced to support an ongoing dialogue among stakeholders and the Technical Working Group (IESO, Distributors and Transmitters) to:

- Review the accuracy of current load forecasts and monitor the status of local supply
- Report on the status of previous planning recommendations and projects
- Discuss new or ongoing developments that may impact load growth

Formalizing Evaluation of Non-Wires Alternatives

- Formalize how regional planning evaluates and compares NWAs, resulting in a more consistent and predictable approach (e.g., screening mechanisms, and information requirements in regional plans to enable solution providers to formulate NWAs)
- Where detailed NWA analysis is warranted, enhance need characterization to provide more comprehensive and detailed data on the nature of the load and any projected growth, including, but not limited to, capturing the load's temporal granularity, locational distribution, end-use applications, and customer types

Enhancing End-of-Life Asset Replacement Consideration

- While not always required, planning for select transmission asset replacements prior to identification of an EOL need allows for better coordination with other electricity system needs
- Developing a “long list” of assets nearing their expected service life will provide better visibility and information to planning participants and help improve timing of planning activities
- Developing a “short list” of more imminent EOL replacement needs and any significant opportunities for better coordination with other electricity system needs

Clarifying the Scope of Process Stages

- Each stage and its deliverable in the regional planning process should offer incremental value
- The scope and accountabilities between the Integrated Regional Resource Plan (IRRP) and the Regional Infrastructure Plan (RIP) should be clarified to avoid unnecessary work, better set expectations, and increase overall process efficiency

Streamlining and Standardizing Forecasting Activities

- As load forecasting is inherently time-intensive, ensuring forecasting methodologies (between different LDCs and between process stages) are consistent will lead to greater efficiencies
- Forecasting methodologies should also adapt to new trends as the electricity sector evolves, taking into account changing peaks and load behaviour
- Number and scope of forecasts should be re-evaluated to seek for opportunities to improve process efficiency while still ensuring the integrity of the forecasts



Next Steps

OEB's Regional Planning Process Advisory Group

- The regional planning process relies on the participation of the IESO, transmitters, and distributors. As such, the implementation of recommendations identified in this review will require the continued collaboration of the participants
- The IESO and OEB have collaborated to identify the organization responsible for the review and implementation, if appropriate, of each recommendation (more information available on the [IESO website](#))
- The OEB has recently reconstituted its Regional Planning Process Advisory Group with a broad membership of industry stakeholders to work on these recommendations

Implementing Regional Planning Process Enhancements

- Process enhancements will ultimately be demonstrated in future regional electricity plans and communicated via individual plan engagements and reports
- Join a [Regional Electricity Network](#) to receive regular updates on these and other initiatives or to join a regional dialogue about emerging local energy trends

Related Ongoing Initiatives

- Regional planning enhancements will be coordinated with other ongoing initiatives including:
 - [Innovation and Sector Evolution White Paper Series](#)
 - [IESO York Region Non Wires Alternatives Demonstration Project](#)
 - [2021-2024 Conservation and Demand Management Framework](#)
 - Capacity building and performance testing of NWAs through the [Grid Innovation Fund](#)
 - OEB's [Responding to DERs initiative](#)

Related Ongoing Initiatives (continued)

- Development of a [work plan](#) to enable participation of emerging resource types in the IESO-administered markets

Next Steps

In the near term, the IESO will:

- Participate in the OEB's RPPAG to support the implementation of the OEB-led recommendations
- Prioritize and work on furthering and implementing recommendations falling under the responsibility of the IESO
- Publicly share IESO's progress in implementing these recommendations through future planning-related engagement activities

Next Steps (continued)

- How would stakeholders prefer to receive updates about these regional planning enhancements?
- Written feedback can be provided to engagement@ieso.ca using the feedback form on the [engagement web page](#) by March 15.
- Please use the feedback form provided to ensure stakeholder feedback is compliant with the Accessibility for Ontarians with Disabilities Act (AODA). If you choose not use the IESO feedback form, please provide an AODA compliant pdf document.

Thank You

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