

Stakeholder Feedback and IESO Response

Regional Planning Process Review – Straw Man Design

Following the March 13, 2020 Regional Planning Process Review stakeholder webinar, the IESO invited stakeholders to provide comments and feedback on the Straw Man Design that was posted on the stakeholder engagement webpage and reviewed during the webinar.

The IESO received feedback from:

- CanSIA
- EDF Renewables
- Hydro One
- Toronto Hydro

The webinar presentation, Straw Man Design document and stakeholder feedback submissions can be accessed from the [engagement webpage](#).

Note on Feedback Summary

The IESO appreciates the feedback received from stakeholders on the items requested and has provided a summary table below, which outlines a summary of the feedback received and the IESO response in relation to this feedback.

General Feedback

Summary of Stakeholder Comments

The straw man design should reflect changes to the process that have already been made as a result of lessons learned from the first planning cycle.

The IESO and OEB should ensure that the final recommendations enhance the process without making it overly complex or burdensome. Continue to allow asset owners the flexibility to

plan/manage/operate their assets, and empower asset owners to make the right decisions for their customers' benefit.

It should be clear which recommendations will be undertaken by the IESO or OEB. Stakeholder forums should not be duplicated, for example, the IESO should raise matters related to non-wires alternatives in the OEB's Responding to DERs and Utility Remuneration consultations. There should be a single joint IESO-OEB working group to tackle issues within both agencies' mandates. The IESO should also acknowledge that some areas may overlap with government decision-making or policy, in addition to the OEB mandate.

Regulatory and planning frameworks must be aligned to ensure a consistent DER framework in Ontario.

IESO Response

The IESO agrees that improvements have already been made since the regional planning process was first formalized, and that the final report for this review should reflect such changes. Asset owners, as part of the Technical Working Groups, will continue to play a crucial role in the process. It is also agreed that the scope between stakeholder forums, though held amongst different organizations, should not be redundant. The IESO is currently consulting with the OEB on the best approach to the implementation of recommendations and who will be responsible for implementation will be made clear. The IESO will also continue participating in the OEB's consultations relating to non-wires alternatives.

Process Efficiency and Flexibility – Load Forecasting

Summary of Stakeholder Comments

Stakeholders generally agree that load forecasting can be streamlined through consistent assumptions and methodologies.

Technology providers should be included in the process so that the IESO has access to the most up-to-date information.

Annual, standardized forecasts that can be summed up to a bulk system forecast is recommended. The IESO should ensure that forecast assumptions, inputs, and methodologies should align across regional planning, the Reliability Outlook, and Annual Planning Outlook (APO). This allows proponents to monitor a region's development and coordinate investments for a non-wires solution, which may address multiple needs).

Options A and B presented in the straw man would increase the amount of detailed, up-front work – this would not benefit regions that do not eventually require an IRRP and coordinated planning.

Regarding Option A, it is important to maintain some flexibility in forecasting, especially as different utilities must represent the specific circumstances of their service territories. LDCs continue to be the best-positioned to forecast for their customers, and arguably should be the entities responsible for producing gross vs. net forecasts. The current template used for load forecasts should be reviewed to consider what additional information may be required in light of sector evolution at the distribution level (i.e., DERs, etc), and there could be value in information from municipal development

plans/proposals with specific and measurable objectives. Regarding Option C, incremental annual reviews for all regions can increase work with little benefit, especially if the transmitter already reviews LDC forecasts every year. If the desire is to formalize the existing practice of reviewing forecasts between stages, then this recommendation is supported.

Another stakeholder submits that a single 20+ year forecast created at the beginning of the process and used throughout would be best. Planning uncertainty should be captured through an LDC-developed, scenario-based approach.

IESO Response

While all stakeholders support the streamlining of assumptions and methodologies to improve load forecasting efficiency, the IESO observes that preferred approaches differ. Consequently, process improvements related to load forecasting would be best addressed through the OEB's Regional Planning Process Advisory Group (RPPAG).

In tandem, the IESO will be seeking internal opportunities for better alignment between forecasting methodologies used in regional planning vs. bulk system planning and will endeavor to incorporate those opportunities in future IESO planning publications such as the APO.

Process Efficiency and Flexibility – IRRP sizing

Summary of Stakeholder Comments

If implemented, the criteria between small, medium, and large IRRPs should be well-defined. Note that the current regional planning process already has some flexibility – the scope of IRRPs are currently based on regional circumstances. For instance, IRRPs have been conducted for a sub-region within a region.

Conversely, criteria could be developed and applied at the scoping assessment stage. Some participants are experiencing that scoping assessments default to an IRRP without the appropriate criteria (i.e., non-wires feasibility) for determining whether an IRRP is required. If required, the IRRP should also focus only on the identified needs and associated assets.

IESO Response

The IESO agrees that in order to effectively implement differently sized IRRPs, criteria would need to be transparent and explicitly defined. The IESO also acknowledges the importance of retaining process flexibility while producing clear scopes of work. As the sector becomes more experienced with non-wires implementation to solve regional needs, scoping assessments will evolve accordingly to recommend the appropriate study approach (IRRPs, RIP, or local plan).

Process Efficiency and Flexibility – RIP vs. IRRP

Summary of Stakeholder Comments

Stakeholders generally agree that there are opportunities for streamlining; suggested solutions, however, vary.

One participant believes that transmission asset owners and LDCs are best qualified to develop a baseline plan – and this, currently in the form of an RIP, should always be done. IRRPs could build upon a baseline plan without redoing work by assessing non-wires alternatives. The scoping assessment could be done in parallel to the RIP, and engagement could be structured into the baseline planning process.

Another participant suggested shortening the scoping assessment or merging it with the IRRP, as the needs assessments can recommend whether an IRRP or bulk study is required. Additionally, the RIP and IRRP could occur in parallel instead of sequentially. After nine months of the IRRP, the RIP may begin to further develop the wires options while the IRRP continues its non-wires options development.

IESO Response

Thank you for this feedback. The IESO suggests that this area of improvement would be best addressed through the OEB's RPPAG.

Process Efficiency and Flexibility – Coordination with related processes

Summary of Stakeholder Comments

Interdependencies would need to be defined for the identified related processes before specific recommendations can be made.

Regarding the coordination between IRRPs and the APO: as future resource adequacy procurements/auctions may identify zonal requirements, it is important to clarify the link between the regional planning process and future resource needs.

IESO Response

The IESO recognizes the need for recommendations that are specific to the process being discussed.

The IESO acknowledges that resource and transmission planning needs/solutions (on both the regional and bulk system levels) can be better integrated. As the formalization of the bulk transmission planning process continues and enters its detailed design phase, a formal process will be defined. These regional planning and bulk planning process stakeholder engagement initiatives will continue to coordinate to achieve this.

Process Efficiency and Flexibility – Engagement and transparency

Summary of Stakeholder Comments

The composition of Technical Working Groups is flawed, as there are no representatives of large (transmission-connected or Class A) customers, nor representatives of non-wires solutions. This limits the solutions and issues that can be discussed during regional planning. Furthermore, because transmitters and LDCs have a financial incentive to promote wires solutions, there is a conflict of interest.

The IESO should conduct stakeholder engagement earlier in the process at the Needs Assessment stage. This would give stakeholders the opportunity to review and critique needs, as well as develop external solutions. Stakeholders should be engaged early to prevent bias in the final solution selection.

Criteria should be developed for coordinated engagement with the IESO, lead transmitter, regional LDCs and municipalities. This ensures continuity between planning and project execution. An uncoordinated engagement plan will also lead to confusion on the accountabilities for electricity planning, plus stakeholder fatigue. In general, utilities' extensive experience with engaging their customers could be leveraged to enhance IESO engagement activities. The IESO should avoid duplication with the utilities' efforts endorsed by the OEB in their rate applications.

IESO Response

Thank you for your feedback. Regional planning continues to operate best when conducted transparently and with opportunities for meaningful stakeholder engagement. This includes public engagement (through webinars, local advisory committees, etc) with all interested parties, including the communities that they serve, municipalities, transmission-connected customers, and non-wires solutions providers. [All interested parties can subscribe to receive updates and opportunities to engage in regional planning at: www.ieso.ca/subscribe](#). The Technical Working Group is designed to share confidential data in order to define the electrical characteristics of the region – engagement is important to invite additional perspectives for consideration by the Working Group.

The IESO emphasizes that under the Electricity Act, 1998, it is obligated to "conduct independent planning for electricity generation, demand management, conservation and transmission". Furthermore, expenditure by LDCs and transmitters (who are also regulated entities) as a result of planning must later be justified through OEB regulatory proceedings. If warranted (i.e., incentive structure changes), regional planning engagement activities can evolve accordingly.

The IESO notes that it is responsible for public engagement practices at the scoping assessment and IRRP stages only, as these are the products that the IESO leads. If the scope and objectives of Needs Assessments change, there could be merit in the transmitter conducting stakeholder engagement earlier in the process.

Process Efficiency and Flexibility – Cost Allocation

Summary of Stakeholder Comments

Regional planning study teams should continue recommending best options from a total system cost and planning perspective. Additionally, cost apportionment to utility ratepayers is a matter to be evaluated by the OEB rather than in regional planning.

While regional planning is not the appropriate forum to determine cost allocation, technical working groups can benefit from a clear understanding of the financial repercussions of their recommendations. The OEB could consider providing educational materials to all stakeholders at an early stage of the process to help achieve this.

IESO Response

The IESO observes general stakeholder agreement that regional planning should continue recommending options from a total system cost perspective, and that the OEB's proceedings continue to be the appropriate venue for cost allocation decisions. Simultaneously, the IESO maintains the position that a clearer understanding of cost responsibility factors at the planning stage would lead to more informed decision-making.

The IESO suggests that actions relating to this area of improvement would be best addressed through the OEB's RPPAG.

Process Efficiency and Flexibility – Long-term planning

Summary of Stakeholder Comments

Stakeholders generally agreed that maintaining a long-term outlook in regional planning can yield opportunities to more effectively pace investments, mitigate impacts to customers over time, and capture potential future needs. Currently, a low-risk approach is taken where firm commitments from load customers are required prior to undertaking build plans. This is not always practical – a more flexible approach could benefit all customers in the long-term. This may require regulatory changes within the purview of the OEB. Each regional plan could also contain a high-level plan to meet long-term needs, thereby encouraging thoughtful consideration of near- to mid-term actions.

IESO Response

Thank you for your feedback. The IESO continues to conduct planning activities with thoughtful consideration for long-term scenarios and assumption changes by striking a balance between prudently recommending investments and enabling growth/development.

Process Efficiency and Flexibility – Between-cycle activities

Summary of Stakeholder Comments

An additional annual meeting with Technical Working Groups is not required for all regions; this may be duplicative for some participants.

IESO Response

The IESO acknowledges that an additional annual meeting may not offer equal value to all regions. One consideration could be to examine this on a case-by-case basis.

End-of-Life (EOL) Asset Replacement Information Process - General

Summary of Stakeholder Comments

A detailed listing of EOL assets should be distributed to the Technical Working Group as an initial step in the regional planning process.

The long and short lists should be publically available and shared with stakeholders, and the rationale for the short lists should be clearly articulated and transparent. It should also be clear how this information is used to inform the planning processes.

It can be argued that the transmitter already provides EOL information (within the next 10 years) to regional and bulk plans so that assets can be “right-sized”. Therefore, no further process changes are needed at this time. Compiling and providing this asset information every year may also not be useful considering the effort of this undertaking. For instance, there may be no benefit if the list is not limited to assets serving regions that are actually undergoing planning.

It is also unclear what the benefit of expected-service-life information would provide. The IESO should not be seeking this data beyond 15 years. Asset replacement is not solely based on asset age. It is recommended that a pilot planning assessment occurs to determine if there is value in collecting this data before onerous data requirements are implemented. Any further decisions relating to this topic would be more appropriately considered within the OEB’s regional planning working group.

IESO Response

The IESO acknowledges the importance of having asset information to inform EOL planning and supports having the short and long lists available to the Regional Planning Technical Working Group participants at the initial step of the planning process. As part of the existing Regional Planning Process, planning is carried out with a comprehensive approach where EOL needs are coordinated with other needs such as reliability and load restoration. The EOL plans currently identified in the various steps of Regional Planning (Needs Assessment, Scoping Assessment, Integrated Regional Resource Plan, Regional Infrastructure Plan) are effectively the short list of EOL needs as recommended by the working group participants and is available publicly. The IESO acknowledges that the rationale provided in Regional Planning documents for EOL replacements can be expanded on to provide greater clarity on why and how the EOL need is being addressed.

The IESO also acknowledges that EOL information (equivalent to the short list) is currently being provided by transmitters to inform the planning process. The IESO supports expanding the information made available to the working group to include expected service life information (long list) which acts as a future outlook to allow exploration of opportunities for “right-sizing” or system reconfiguration to address other system needs amongst working group participants. The IESO agrees that the need to replace an asset is not based solely on age, but rather based on many other variables (condition, usage, risks, etc.) and is the result of a comprehensive planning process.

The IESO suggests that actions relating to this area of improvement would be best addressed through the OEB’s RPPAG.

Barriers to Non-Wires – Needs characterization

Summary of Stakeholder Comments

More information should be shared publicly for analysis in readable data files, with assumptions, methodologies, and inputs clearly stated. Having a more granular and publically accessible approach to needs identification is supported, as it will better enable stakeholders to respond to planning signals. For instance, typical hourly load shapes could help properly assess the characteristics of an

energy storage resource option. Identifying needs and available DER hosting capacity prior to future IESO market procurements could also ensure that DERs/NWAs are “right-sized” to the different distribution services areas.

IESO Response

Thank you for your feedback. The IESO agrees that providing more granular and accessible data on needs is important to enable more meaningful stakeholder input – particularly to design NWA to address specific system needs. The IESO will begin making incremental changes to expand the need definition information provided publically and apply consistency of information across all planning regions.

Barriers to Non-Wires – Options Development

Summary of Stakeholder Comments

The IESO should open up solutions development by using competitive mechanisms to solicit proposals or information that could help address needs. The IESO should establish criteria for evaluating potential solutions and continue to work closely with distributors, customers, investors, and other vendors. Furthermore, the IESO should provide a summary of the methodology used to compare the ratepayer impacts for different options – this would allow technology providers to design for maximum value under different regional scenarios. For example, for non-wires options, it is important to understand the input assumptions for system value modelling. A simplistic financial model should be shared with stakeholders to include capital and O&M cost estimates, operating life expectations, etc.

IESO Response

Establishing a consistent procurement process for non-wires solutions will be essential and require an enduring effort across the industry. The IESO will continue to work with the OEB to advance the regulatory and market environment to clarify procurement mechanisms.

The IESO's [York Region Local Electricity Market Pilot](#) and [Innovation and Sector Evolution Whitepaper Series](#) (ISEWS) stakeholder engagement is expected to generate learnings regarding non-wires solution options development and procurement.

Barriers to Non-Wires – Process Formalization

Summary of Stakeholder Comments

The IESO should explore participation models and expand input in the IRRP process to technology providers, as they can provide information on options (costs, applicability, etc) but may not be able to participate in each active IRRP separately.

Generally, while a standardized framework for evaluating non-wires proposals is important, specific evaluation criteria may depend on local priorities. Overarching principles should be consistent between regions, but solutions should be customized to fit highly specific needs and objectives.

IESO Response

The IESO will continue to align engagement efforts to minimize burden on stakeholders. IESO engagement initiatives such as the regional electricity networks and others also help to inform opportunities for non-wires options and the IESO will leverage these discussions to inform regional planning needs as they emerge.

The IESO agrees that, while the framework for evaluating non-wires options should be consistent between regions, each plan must also be tailored for specific local area priorities and considerations.

Barriers to Non-Wires – Participation in markets

Summary of Stakeholder Comments

The IESO should continue clarifying the ability of non-wires options to obtain revenue offsets through participation in the wholesale market. These efforts should be coordinated with the IESO innovation and sector evolution whitepapers as they relate to non-wires market access.

IESO Response

On June 1, 2020, IESO published the Non-Wires Alternatives Using Energy and Capacity Markets whitepaper which explores the potential use of local energy and capacity markets as a means to deliver NWAs. This paper also explores the potential to coordinate the use of DERs both as NWAs at the distribution level, as well as suppliers to the wholesale markets. Additionally, the IESO is currently developing a second white paper on options to enhance DER participation in the IESO Administered Markets. The IESO will continue to use these and other whitepapers, being developed through the ISEWS stakeholder engagement, to advance the discussion on market participation for DERs being used as NWAs, and DERs in general.

Please note that the OEB's Conservation and Demand Management Requirement Guidelines for Electricity Distributors currently speak to the ability of ratebased non-wires solutions addressing distribution network needs to option revenue offsets through participation in the wholesale market.

Barriers to Non-Wires – Funding Streams

Summary of Stakeholder Comments

Regarding non-wires solutions, clear and consistent guidance from both the IESO and OEB is paramount to fairly recognizing the full system benefits they can provide. To that end, the IESO and OEB should establish a joint working group to tackle issues that are within both agency's mandate.

One stakeholder suggested two approaches for a non-wires ratepayer impact assessment, one whereby the cost to rate-payers would be calculated as the revenue requirement less any additional revenue streams the NWA could access, the other whereby the cost is determined by a fixed reliability payment through a competitive procurement.

If the viability or value proposition of NWA hinges on the ability to generate additional revenue streams, then maybe this is the most critical barrier rather than a premature change to the Regional

Planning Process. Regulatory changes can impact system costs and the IESO should be careful not to pursue too many changes simultaneously.

Of the four value streams identified in the straw man, system and local values should be considered within regional planning. However, customer and societal value may not be best considered, to avoid having ratepayers subsidize an investment that benefits few customers. This broader discussion should be determined in other forums, such as the OEB's Responding to DERs consultation.

IESO Response

The IESO will evolve the treatment of non-wires in regional planning in step with regulatory changes. The IESO is aware that many of the recommendations for the regional planning process are dependent on ongoing OEB initiatives and the IESO will continue to participate in these initiatives to inform discussions on key NWA issues such as value stacking and cost allocation.

Barriers to Non-Wires – Operationalization requirements

Summary of Stakeholder Comments

Stakeholders acknowledged that the IESO and distributors should establish appropriate visibility of DERs for operationalization.

In the straw man, this barrier did not capture another limitation: Ontario's electricity system was not designed to support larger numbers of DERs, and the available capacity for their connection varies. Where DER connection capacity is not available, the connection cost responsibility largely falls on the connecting proponent which, combined with the barrier of Technology Maturity and Cost, may not yield itself to allowing NWAs to equally provide cost-effective solutions in all areas of the province.

IESO Response

Incremental costs associated with implementing DERs in any particular part of the system will be considered in the options analysis.

Distributors play a key role in Regional Planning and are involved in both the identification of supply needs as well as solutions. The IESO's Grid-LDC Interoperability Standing Committee is focused on coordinated operations between the transmission and distribution systems as the risk associated with distribution connected resources evolve.

Barriers to Non-Wires – Targeted EE

Summary of Stakeholder Comments

Stakeholders indicated support for targeted EE programs. It was recommended that programs include opportunities for all load displacement measures that might be cost-effective, including net-metered solar.

IESO Response

Thank you for your feedback. The IESO will continue to evolve its consideration of non-wire alternatives in the regional planning process to include load displacement measures, as appropriate.

Barriers to Non-Wires – Testing performance and building capacity through the Grid Innovation Fund (GIF)

Summary of Stakeholder Comments

The IESO should standardize reporting of the objectives of each demonstration project and lessons learned to ensure information is widely shared within the sector. The IESO should explore a range of different scenarios, procurement processes, and program designs.

Stakeholders agreed that leveraging these projects will provide experience and data to inform assessments and decisions. There should be a strong emphasis on incorporating lessons learned to the general process. Also, not all processes need to have a demonstration phases if they are known to work in other markets.

IESO Response

The IESO will continue to review Grid Innovation Fund projects and leverage lessons learned into the planning process.

Barriers to Non-Wires – General

Summary of Stakeholder Comments

The IESO should be cautious of proceeding too far before foundational decisions are made by the OEB regarding the regulatory framework. For example, if non-wires options rely on multiple value streams to be cost-effective, developing better tools in regional planning could result in assets being placed in-service before they can obtain the revenue in various IESO markets. As a next step, the IESO should evaluate the impact of the identified barriers and focus on addressing the most material issues first (prioritize and sequence the near-term actions).

The IESO should evaluate on an evidentiary basis the relative impact of the identified barriers and to focus on first addressing the most material issues. This exercise should inform the prioritization and sequencing of the near-term actions identified by the IESO.

IESO Response

The IESO will continue to participate in OEB initiatives and consider opportunities to align engagement efforts.

The IESO will consider future regulatory changes to inform the implementation of regional planning process recommendations.

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