Northwest Regional Electricity Planning Public webinar – May 20, 2021

Response to Feedback

The IESO hosted a public webinar on May 20, 2021 to provide an overview of Northwest regional electricity planning currently underway and to seek input to inform the first stages of the development of an Integrated Regional Resource Plan (IRRP). The meeting materials and <u>recorded webinar</u> are available on the <u>engagement webpage</u> along with the feedback received.

Feedback was received from the following parties and posted on the engagement webpage:

- Grand Council Treaty #3
- <u>Municipality of Greenstone</u>
- <u>Municipality of Sioux Lookout</u>
- Power Workers Union
- <u>SCI Stantec Joint Venture</u>

In addition, feedback was requested during the May 20 webinar specifically related to future engagement opportunities. A summary of this feedback along with IESO response is also included.

This response document summarizes the themes that emerged from the feedback along with the IESO's response and how it was considered in this phase of regional planning. The themes resulting from feedback include:

- 1. Engagement in Northwest regional planning
- 2. Municipal/community energy planning and economic development
- 3. Reliability
- 4. Electricity forecast
- 5. Future supply



Theme #1: Engagement in Northwest regional planning

- 1. Feedback: Comments received during the May 20 webinar related to the proposed engagement approach include:
 - Sub-regional discussions should be organized around communities that have already expressed a need to enhance the delivery of electricity
 - Indigenous inclusion is essential
 - Important for sub-regions to understand each others demand profiles to use this information when building climate action plans
 - Significant interest in having more sub-regional or targeted engagement discussions to provide input into the IRRP
- 2. Feedback provider: Municipality of Sioux Lookout Want to participate in further discussions specific to the Red Lake/Sioux Lookout subregion.

IESO response: The IESO appreciates the interest to engage in this regional planning process. As presented, the IESO has taken the approach to consolidate planning efforts for all former sub-regions in the Northwest region. This approach will provide an ability to analyze the characteristics of each of the sub-regions and how they intersect or impact each of the sub-regions across the broader northwest electricity grid. Based on this input, the IESO recognizes that there are varying issues to address on a subregional or even specific issue basis. As such, the IESO has updated the Northwest region Engagement Plan (attached appendix) to include opportunities for more targeted discussions.

Three new targeted discussion groups will include:

- Reliability in the areas north of Dryden and Red Lake
- Emerging local initiatives in the Northwest region and their impact on planning electricity needs i.e. electrification, community energy planning, local solutions, etc.
- Local customer reliability concerns

All interested parties will be invited to participate in these group discussions and summary notes will be will shared with the broader Northwest regional planning engagement audience.

In addition, the IESO will continue to invite and respond to requests for targeted one-onone discussions to address any emerging issues or seek additional information.

3. Feedback provider: Grand Council Treaty #3

An energy coordinator was hired in order to fully engage in the in Treaty #3. However, additional resources are always considered and necessary to ensure proper engagement with the 28 Treaty #3 communities.

IESO response: The IESO appreciates the time and input into our engagement initiatives. While it is not the IESO's practice to provide compensation to participate in engagement initiatives there are programs to help enable participation, particularly among First Nation communities. The IESO's Energy Support Programs (ESPs) are available to support Ontario First Nation communities and organizations to increase their energy-related capacity. The ESPs include: Community Energy Champions (CEC); Education and Capacity Building (ECB); Indigenous Community Energy Plan (ICEP); and Indigenous Energy Projects (IEP). More information can be found on the IESO website at: https://www.ieso.ca/en/Get-Involved/Indigenous-Relations/Funding-Programs

4. Feedback provider: Grand Council Treaty #3

The Anishinaabe Nation of Treaty #3 has a strong interest in energy sovereignty. Many communities are beginning to work on community energy plans, as well as beginning a journey of partnering with transmitters and distributors. As we become more accustomed to the changing landscape that is unfolding in Ontario related to the Market Renewal System, we expect communities will take a more active role, in which case, there may be requests for one-on-one dialogue. In addition, communities will most likely begin to seek out opportunities for economic development as changes unfold in this market.

IESO response: The IESO welcomes input from Indigenous communities in the regional planning process – in particular specific initiatives within community energy plans as well as economic developments plans that might inform the future electricity needs and potential local energy solutions that might help meets those needs at a local or regional level. As noted above, the IESO delivers a suite of Energy Support Programs which assist communities with building energy-related capacity in order to be able to engage in these discussions. More information can be found here: https://www.ieso.ca/en/Get-Involved/Regional-Planning

Theme #2: Municipal/Community Energy Planning and Economic Development

- 5. Feedback provider: Municipality of Greenstone Key developments for Greenstone include new gold mine (Greenstone Gold), industrial park and increased residential housing.
- 6. Feedback provider: Municipality of Sioux Lookout There appears to be a lack of focus on the Red Lake / Sioux Lookout regions pertaining to the growth in the Mining and manufacturing sectors. Key developments within the five-year forecast in the Sioux Lookout region need to be highlighted, including Treasury Metals Mine Development and First Mining Springpole Project.

IESO response: Thank you for the information. Local stakeholder information such as those provided here help inform the development of the IRRP electricity demand forecast. The IESO will include the mining projects above in the IRRP's mining demand forecast. More information on the mining demand forecast will be shared at the next public webinar.

For growth connected on the distribution system, the IRRP relies on forecasts provided by local distribution companies for their service territories. As a member of this IRRP Technical Working, feedback regarding industrial park and residential housing electricity demand growth will be shared with the distributor for the Municipality of Greenstone (Hydro One Distribution).

7. Feedback provider: Municipality of Sioux Lookout

A System Impact Analysis (SIA) is not progressing to the level in which we can provide accurate and detailed information on the barriers to regional growth in Sioux Lookout and the Far North within the next five years. The Municipality of Sioux Lookout has undergone a Municipal Energy Planning Process which lead to the SIA which clearly indicates there needs to be upgrades at the Sam Lake Distribution Station.

IESO response: The IESO and the IRRP Technical Working Group are aware of the step-down capacity need at Sam Lake Distribution System (DS) to supply anticipated growth in and around the Sioux Lookout area. The <u>2020 Needs Assessment</u> recommended that Sioux Lookout Hydro, Hydro One Distribution, and Hydro One Transmission collaborate in order to develop a suitable local solution to address this need given that there was no broader system implications identified - such as upstream system voltage or flow violations . The step-down capacity need at Sam Lake DS will not be included in this IRRP unless new needs requiring further regional coordination are discovered.

As part of local planning and implementation of the local plan, the parties involved may submit a System Impact Assessment (SIA) if they intend to develop a new facility or modify an existing facility that is connected to the IESO-controlled grid. Please note that a SIA is a technical study with a narrow scope for the purpose of assessing these new or modified facilities to identify and mitigate any potential adverse effects on the reliability of the electricity grid and its existing customers.

Theme #3: Reliability

8. Feedback provider: Grand Council Treaty #3

As the Ontario grid is expanded through the East West Tie Transmission Project to connect with Manitoba, we are wondering if any consideration has been given to the potential for the exchange of energy by means of purchase agreements for demand or emergencies due to weather extremes?

IESO response: Thank you for your question. To support the reliability of the electricity system in northwest Ontario, the IESO entered into a Reliability Must-Run agreement with Manitoba Hydro to ensure 100 megawatts of capacity is on standby this September and October (fall of 2021). For more details, see the IESO's April 8, 2021 news update.

Please note that imports and exports are typically outside the scope of regional planning since they are best evaluated in the context of bulk system adequacy and security. For more information on how the IESO will meet peak system capacity and energy needs, please refer to the <u>Resource Adequacy Framework</u>, the <u>2020 Annual Planning Outlook</u>,

- Feedback provider: Municipality of Greenstone Local reliability concerns include frequent and long lasting outages (both planned and unplanned) and current radial transmission line (A4L) has little capacity for future development.
- 10. Feedback provider: Grand Council Treaty #3

In the traditional territory of Treaty #3, many communities experience power disruptions that, at times, cause significant loss, i.e. food security. It is important to note that potential outages also impacting heating and cooling during extreme weather events throughout the Territory and can also impact access to drinking water and other important resources. The Treaty #3 communities area not considered remote and do not rely on diesel.

IESO response: Thank you for the information. As discussed in the webinar, this IRRP largely relies on local communities to bring customer reliability concerns to the IRRP Technical Working Group's attention since they typically do not violate minimum performance standards that are used to identify needs.

The concerns that you have raised will be further investigated by the Working Group to determine the cause and document potential options. There will also be further engagement opportunities at the focused discussion groups (please referred to the response to Feedback #2 above) to discuss these concerns with the Working Group and other communities that have similar concerns.

Theme #4: Electricity Forecast

11. Feedback provider: Municipality of Sioux Lookout

Would like to be able to review the draft technical study numbers supporting the demand forecasts especially in our geographical area. The IRRP relies on information from the customers to inform the transmission-connected forecast – is this information compiled and can we see this especially pertaining to sub-regions.

IESO response: Thank you for your inquiry. Existing transmission-connected customer forecasts are not shared publicly because they are based on the customer's historical demand patterns and future expansion/retirement plans which are commercially sensitive and confidential. The aggregate existing transmission-connected customer forecast for the Northwest region is shown on slide 20 of the webinar presentation. As the IRRP's technical study work continues and needs are identified for specific sub-regions, the Working Group will consider breaking down the forecast for a specific pocket provided that there are enough customers to maintain anonymity.

A list of future mines that may connect to the transmission system over the forecast horizon was shared in the webinar materials as an appendix. 12. Feedback provider: Power Workers Union

Factor electrification due to climate considerations as an input to the demand forecast (further details available in <u>posted feedback</u>), particularly related to (a) the nature of the demand, (b) regional demand net of local supply options, (c) impact of electrification, and (d) demand arising from the construction of new transmission in the region.

IESO response: Thank you for your submission. The IRRP Technical Working Group is aware of climate change action plans and municipal energy plans in the Northwest region that call for electrification as a means to reduce emissions. While firm development plans that may be associated with electrification are included in the distribution-connected electricity demand forecast, the Working Group recognizes that other long-term goals in these plans will likely put upward pressure on the demand forecast but are difficult to quantify today.

Therefore, the Working Group will explore creating a high growth sensitivity that captures the uncertain growth associated with these municipal energy plans to further test the robustness of the IRRP's recommendations. Work on this scenario is ongoing and further updates will be provided as they become available.

Theme #5: Future Supply

13. Feedback provider: Grand Council Treaty #3

As the Ontario grid expands for full connection across Canada, has consideration been given to the potential sale of electricity to the US? Has any consideration been given to Canada's national energy plan where new policies are being enacted, and new energy developments related to hydrogen and small modular reactors are promoted?

14. Feedback provider: SCI Stantec Joint Venture Adequacy of the transmission system to facilitate both integration of energy storage and increased exports to the MISO and Manitoba systems.

15. Feedback provider: Power Workers Union

Recognize the critical role of Atikokan in shaping the region's electricity demand from the bulk system.

IESO response: Thank you for your interest. Interconnections with neighboring jurisdictions and bulk system security and adequacy are typically not in scope for regional planning since its primary purpose is addressing local reliability needs that require regional coordination between the IESO, transmitter, and distributors.

For the purpose of quantifying local reliability needs, the IRRP study will assume that generators, including Atikokan, are no longer available after their contract expiry date. The IRRP Technical Working Group will update this assumption if and when there are contract updates.

For more information on imports, exports, and resource procurement, please refer to the <u>Resource Adequacy Framework</u>, the <u>2020 Annual Planning Outlook</u>, and the <u>2021 Annual Acquisition Report</u>. Note that generally speaking, the IESO is technology agnostic and seeks to use competitive mechanisms to fulfill Ontario capacity and energy needs.

16. Feedback provider: SCI Stantec Joint Venture

We represent Boundary Waters Anishinaabeg Development LP, who are proposing to develop an 840 MW, 10 hour pump storage facility on the site of the Steep Rock mine, north of Atikokan.

IESO response: Thank you for the information. As mentioned above, for more information on imports, exports, and resource procurement, please refer to the <u>Resource Adequacy Framework</u>, the <u>2020 Annual Planning Outlook</u>, and the <u>2021 Annual Acquisition Report</u>.

Once local reliability needs in the Northwest region are known, the IRRP may consider local generation/storage options if suitable for addressing the need.

17. Feedback provider: Power Workers Union

Consider the need for local low carbon electricity generation to support emission reductions.

IESO response: Thank you for your comment. Please note that, absent of provincial government policy, the IESO is technology agnostic and will generally propose the most economic option that adequately resolves the need and meets applicable reliability standards. Greenhouse gas emissions are considered in the IRRP's options analysis by accounting for the carbon price associated with emitting resources, but the IESO does not have emission reduction targets unless directed by government policy.

Regional Electricity Planning Northwest Ontario

Engagement Plan – Updated August 2021

INTRODUCTION

This Engagement Plan outlines the background, objectives and proposed timelines to engage with communities and other interested parties in the development of the 2021 Northwest Ontario region Integrated Regional Resource Plan (IRRP).

Examples of the input the IESO is seeking to inform the IRRP for the region include:

- Information to inform the electricity forecast and needs of the region including details about economic development goals, projected growth and future plans particularly related to new industrial development or expansion of existing projects
- Local options that might address needs indentified within the planning period over the near term (up to five years) to medium term (up to 10 years)
- Opportunities to align future goals within community energy plans, community-based energy solutions, and other economic development plans for consideration in the medium to long term (up to 20 years)

All interested parties are invited and encouraged to participate in this engagement initiative. Interested parties may include, but are not limited to, local municipalities, Indigenous communities, businesses, stakeholders and members of the general public.

The IESO encourages all parties with an interest in participating in this regional planning initiative to contact **<u>engagement@ieso.ca</u>** to note their interest and ensure they receive communications on planning updates and engagement opportunities for the region.

This engagement plan may be subject to review and update as the process evolves.



ABOUT REGIONAL ELECTRICITY PLANNING

Regional electricity planning is about identifying and meeting local electricity needs to ensure the reliability of electricity supply in each of the 21 electricity regions across the province. Planning for each region involves the creation of a 20-year outlook plan, considering the region's unique needs and characteristics, conservation initiatives and opportunities, local generation, transmission and distribution, and innovative resources. Regional planning is, however, only one part of transmission planning, which includes bulk and distribution system planning that also has the goal of maintaining a reliable and cost-effective electricity supply.

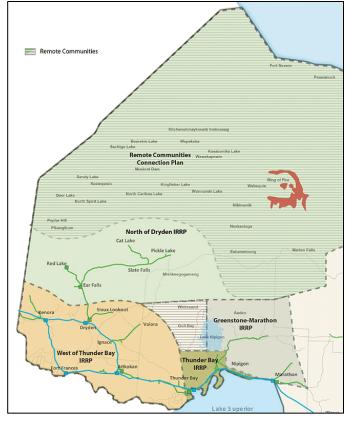
Each of these regions goes through a formal planning process at least once every five years, though at different times. The process unfolds differently each time depending on the region's unique needs and concerns.

More information about the regional electricity planning process can be found in the Appendix.

REGIONAL ELECTRICITY PLANNING IN NORTHWEST ONTARIO

The Northwest region encompasses a vast geographic area and a diversity of economic and social factors unique within Ontario. Planning in this region possesses uncertainties and challenges not normally seen in other parts of the province. Demand in this region is largely driven by resource based industrial customers such as mines and forestry operations. Their development is highly dependent on factors such as commodity prices and access to financing.

In addition to the cities and towns, the Northwest has many rural and remote communities often served from long singlesupply transmission circuits. The municipalities within the Northwest region includes the Town of Marathon, Municipality of Greenstone, Township of Nipigon, Township of Manitowadge, Township of Schreiber, Township of Terrace Bay, Township of White River, City of Thunder Bay, Township of Red Rock, Township



of Nipigon, Municipality of Neebing, Municipality of Oliver Paipoonge, Municipality of Shuniah, Township of O'Connor, Township of Conmee, Township of Dorion, Township of Gillies, Township of Alberton, Town of Atikokan, Township of Chapple, Township of Dawson, Township of Emo, Town of Fort Frances, Township of Lake of the Woods, Township of La Vallee, Township of Morley, Town of Rainy River, City of Dryden, City of Kenora, Municipality of Machin, Municipality of Sioux Lookout, Township of Ignace, and Township of Sioux Narrows-Nestor Falls. The Northwest Ontario region is home to about half of the First Nation communities in the province as shown in Table 3-1. A number of Métis communities are also located in the Northwest region. The following are affiliated with the Métis Nation of Ontario: Atikokan and Area Metis Council, Greenstone Métis Council, Kenora Metis Council, Superior North Shore Métis Council, Northwest Métis Council, Sunset Country Metis Council and Thunder Bay Métis Council. Red Sky Métis Independent Nation is another Métis community with its office located in Thunder Bay. Note that not all First Nation and Métis communities listed are grid connected.

The current regional planning cycle began with the <u>Needs Assessment report</u> published by Hydro one on July 17, 2020, which identified areas that require further review and assessment, and may need to be coordinated with broader regional planning.

Following the Needs Assessment, the IESO engaged on and led the development of the <u>Northwest</u> <u>Scoping Assessment Outcome Report</u> that was published on January 13, 2021. The report determined that an integrated approach should be studied to address local identified electricity needs. This study will result in an Integrated Regional Resource Plan (IRRP) for the entire Northwest region for this planning cycle. A Northwest Technical Working Group, led by the IESO, including the transmitter and local distribution companies serving the region, will develop this IRRP taking into consideration input from communities and stakeholders.

Members of the Techinical Working Group include:

- Atikokan Hydro Inc.
- Fort Frances Power Corporation
- Hydro One Networks Inc. (Hydro One Transmission)
- Hydro One Networks Inc. (Hydro One Distribution)
- Sioux Lookout Hydro Inc.
- Synergy North

The IRRP will include recommendations to maintain reliability of supply to the region over the next 20 years (2021-2041). To develop the IRRP, the Technical Working Group will work to gather data, identify needs and issues, examine options, recommended actions, and develop an implementation plan.

The goal of the IRRP is to illustrate the integration of all relevant planning information including: forecasted electricity demand growth, energy efficiency and demand management with transmission and distribution system capability, other bulk electric system needs and/or developments. Both non-wires and wire solutions will be examined and communities and stakeholders will be engaged on the options.

The previous Northwest planning cycle resulted in four separate IRRPs for the following sub-regions:

- Greenstone-Marathon (published June 2016)
- Thunder Bay (published December 2016)
- West of Thunder Bay (published July 2016)

• North of Dryden (published January 2015)

More details can be found on the Northwest Regional Planning webpage.

This second cycle of regional planning will focus on one single IRRP covering the entire region.

2021/2022 NORTHWEST INTEGRATED REGIONAL RESOURCE PLAN (IRRP)

The Technical Working Group is responsible for gathering data and assessing the adequacy and security of the electricity supply to the Northwest region and, through this engagement, recommend an integrated set of actions to meet the needs of the region.

Their work is intended to focus on, but not limited to, the following priority areas¹ as outlined in the 2021 Northwest Scoping Assessment Outcome Report (Section 5.2) including:

- Thunder Bay Area Capacity Need
- Marathon Area Capacity Need
- Refresh North of Dryden Area System Capability
- Non-Wires Alternatives for Kenora MTS Capacity Need
- Ring of Fire Connection Scenario
- Load Restoration
- End of Life

ENGAGEMENT OBJECTIVES AND SCOPE

The objective of this engagement plan is to ensure that interested stakeholders and community members understand the scope of the IRRP and are in a position to provide input into the development of the document.

The IESO is also seeking input to ensure the IRRP:

- Considers community perspectives on local needs
- Evaluates various options to meet the growing electricity demand in the Northwest region
- Ensures a reliable source of electricity in the region over the next 20 years.

Through the planned initiatives to engage stakeholders and community members, the IESO will seek input on:

- Local and regional economic development and, in particular, the forecasted needs within the mining sector
- Plans and projects that may have an impact on local growth rates and electricity demand (e.g. regional transit expansion, electrification, large incremental loads connecting to the system, significant DER projects, etc.)

¹ Through the IRRP process additional needs may be identified or the ones identified may be revised.

- Options for addressing local electricity needs, including non-wires alternatives (e.g., conservation and demand management (CDM) and DERs) and local support and interest for developing these options in the near (five years), medium (10 years) and long term (20 years)
- Information from municipal plans including the implementation of those projects that could impact electricity use, specifically from community energy plans, energy reporting/CDM plans, official plans and secondary plans

Topics out of scope for discussion include:

- Projects and plans already underway as part of the previous planning activities
- Policy-level decisions or direction
- Existing program rules
- Local connection requirements of any individual projects unless there is an opportunity to align with broader regional needs

INTERESTED PARTIES

Input into the development of the IRRP is encouraged and welcomed from any community member or interested stakeholders, however, those that may be particularly interested include:

- Municipal planning staff (e.g., planning, sustainability, climate change and economic development staff)
- Indigenous communities
- Large industrial customers existing or potential
- Generators
- Consumer groups and associations (e.g., consumer/resident associations, Business Improvement Areas, homebuilders associations, etc.)
- Other public sector associations (e.g., hospitals and school boards)
- Local Boards of Trade and/or Chambers of Commerce
- Academia and research organizations (e.g., colleges and universities)
- Environmental groups and associations
- Energy service providers

The IESO will also conduct targeted outreach to stakeholders and communities where specific local needs and issues need further investigation. The outcome of these discussions will be communicated through this engagement initiative.

APPROACH AND METHODS FOR DEVELOPING THE IRRP

Any engagement with the community and interested stakeholders will be conducted in accordance with the IESO's Engagement Principles.

This is a public engagement process. Materials will be posted on the dedicated <u>webpage</u>. In addition, any information/input supplied by interested parties will be posted (with consent).

Input will be collected from interested parties through a variety of channels, including virtual and face-to-face meetings (as appropriate), webinars, conference calls and/or written feedback. The IESO will consider all relevant input and illustrate how feedback was considered in the development of next steps including the final recommendations.

This engagement will be supported by the following:

- Public engagement to ensure that all interested parties have an opportunity to access and provide input in the development of the Northwest region IRRP. Details will be posted on the engagment webpage.
- Targeted group discussions will be established for the following topics:
 - 1. Reliability in the areas north of Dryden and Red Lake
 - 2. Emerging local initiatives in the Northwest region and their impact on planning electricity needs – i.e. electrification, community energy planning, local solutions, etc.
 - 3. Local customer reliability concerns
- Targeted outreach with specific stakeholders and communities, where identified necessary. A summary of discussions will be shared as part of the final report.

| Date | Event/Objective | Expected Actions/Notes |
|--------------|---|--|
| May 20, 2021 | Provide update on planning activities underway Summarize preliminary regional demand forecast, draft engagement plan | Seek input to inform electricity forecast including emerging industrial growth Seek input on draft engagement plan Post feedback and IESO response to feedback, including rationale |
| Q3 2021 | Provide overview of electricity demand forecast and detailed engagement plan in response to feedback received | Seek input on preliminary needs Finalize demand forecast Seek input on the need for further sub-regional discussions to explore local solutions Post feedback and IESO response |

PROPOSED ENGAGEMENT SCHEDULE

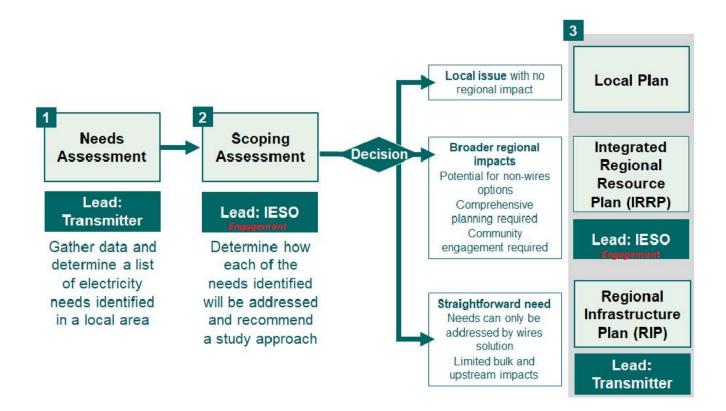
| Date | Event/Objective | Expected Actions/Notes |
|------------|---|--|
| Q3/Q4 2021 | Sub-regional Targeted group discussions::s, as needed • • Reliability in north of Dryden and Red Lake areas • Emerging local initiatives • Local customer reliability • Local customer reliability • One-on-one discussions, as identifiedGather sub-regional stakeholders and communities to share perspectives Inform potential, more local, solutions to meet electricity needs | Seek input on local priorities, needs and solutions Summarize input to inform next engagement phase |
| Q1 2022 | Public Webinar #3: Summary of input from sub- regionaltargeted discussions Overview of range of potential options/solutions to be examined | Seek input on options and potential solutions to be examined Post feedback and IESO response to feedback, including rationale Seek input on further discussions needed |
| Q1/Q2 2022 | Investigate specific issues 1:1 discussions, as needed, to inform draft IRRP recommendations | Summarize input to inform next engagement phase |
| Q2 2022 | Public Webinar #4: Overview of draft IRRP recommendations Discuss considerations for communities and interested parties to consider in the medium- to long-term planning | Seek input on proposed recommendations, as identified Post feedback and IESO response to feedback |
| 2022 | Finalize Northwest IRRP | Post final report Close engagement Conduct survey on engagement process |

APPENDIX – REGIONAL PLANNING PROCESS

Regional planning is ongoing, with electricity reliability evaluated at least once every five years in each region. Community engagement is a critical part of the planning process and the IESO encourages all interested parties to join this discussion to:

- Learn more about the regional planning process and local electricity needs
- Provide input into shaping a community's electricity future by discussing options for meeting local needs, including applicable non-wires alternatives, and discussing the local community's support for development of these options
- Share perspectives for future growth in the area, and how to work together to shape the area's future electricity supply
- Determine opportunities for coordinating and aligning local planning activities and initiatives with the regional planning process

The following diagram illustrates the steps, parties and outcomes of the regional planning process.



For more information, visit the Regional Planning Process webpage at:

https://www.ieso.ca/en/Get-Involved/Regional-Planning/About-Regional-Planning/How-the-Process-Works