Regional Electricity Planning – Northwest Ontario

Engagement Plan

Background

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

Examples of the input the IESO is seeking to include:

- Information to inform the electricity demand forecast and needs of the area including details about economic development, projected growth and planned energy projects and initiatives
- Local options that might address needs identified within the planning period – up to the next 20 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 including but not limited to local municipalities, Indigenous communities, businesses, industry associations and members of the general public.

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

ABOUT REGIONAL ELECTRICITY PLANNING

Regional electricity planning identifies and addresses local electricity needs to ensure the reliability of electricity supply in each of the established 21 electricity planning regions across the province. Planning for each region involves the creation of a 20-year demand forecast, considering the region's unique needs and characteristics, demand management initiatives and opportunities, local generation, transmission and distribution, and innovative approaches. Regional planning is just one component of planning Ontario's electricity system, which includes bulk (i.e. provincial) and local distribution system planning. All these elements share the common goal of maintaining a reliable and cost-effective electricity supply.

Each of the 21 regions undergoes a formal planning process at least once every five years, though at different times. The process looks at the unique needs of each region, and considers conservation, generation, transmission and distribution, and innovative resources to meet these needs.

REGIONAL ELECTRICITY PLANNING IN NORTHWEST ONTARIO

The Northwest Ontario Region, shown in Figure 1, roughly comprises, the Northwest region includes the districts of Kenora, Rainy River, and Thunder Bay, bounded by Lake Superior to the south, the Marathon area to the east, and the Manitoba border to the west.

Indigenous communities that may be potentially impacted or may have an interest based on treaty territory, traditional territory or traditional land uses include: Animakee Wa Zhing #37 First Nation, Animbiigoo Zaagi'igan Anishinaabek First Nation, Anishinaabeg of Naongashiing (Big Island First Nation), Aroland First Nation, Asubpeeschoseewagong First Nation, Bearskin Lake First Nation, Big Grassy River First Nation, Biigtigong Nishnaabeg, Biinjitiwaabik Zaaging Anishinaabek, Bingwi Neyaashi Anishinaabek, Brunswick House First Nation, Cat Lake First Nation, Constance Lake First Nation, Couchiching First Nation, Deer Lake First Nation, Eabametoong First Nation, Eagle Lake First Nation, Fort Severn First Nation, Fort William First Nation, Gakijiwanong Anishinaabe Nation, Ginoogaming First Nation, Gull Bay First Nation, Iskatewizaagegan #39 Independent First Nation, Kasabonika Lake First Nation, Keewaywin First Nation, Kingfisher Lake First Nation, Kitchenuhmaykoosib Inninuwug First Nation, Koocheching First Nation, Lac des Mille Lacs First Nation, Lac Seul First Nation, Long Lake #58 First Nation, Marten Falls First Nation, McDowell Lake First Nation, Michipicoten First Nation, Mishkeegogamang First Nation, Missanabie Cree First Nation, Mitaanjigamiing First Nation, Muskrat Dam Lake First Nation, Naicatchewenin First Nation, Namaygoosisagagun First Nation, Naotkamegwanning First Nation, Neskantaga First Nation, Netmizaaggamig Nishnaabeg, Nibinamik First Nation, Niisaachewan Anishinaabe Nation, North Caribou Lake First Nation, North Spirit Lake First Nation, Northwest Angle #33 First Nation, Ojibway Nation of Saugeen First Nation, Ojibways of Onigaming First Nation, Pays Plat First Nation, Pikangikum First Nation, Poplar Hill First Nation, Rainy River First Nations, Red Rock Indian Band, Sachigo Lake First Nation, Sandy Lake First Nation, Seine River First Nation, Shoal Lake 40 First Nation, Slate Falls First Nation, Wabaseemoong Independent Nations, Wabauskang First Nation, Wabigoon Lake Ojibway Nation, Wapekeka First Nation, Washagamis (Obashkaandagaang) Bay First Nation, Wauzhushk Onigum Nation, Wawakapewin First Nation, Webequie First Nation, Weenusk First Nation, Whitesand First Nation, Whitewater Lake First Nation, Wunnumin Lake First Nation.

The Tribal Councils and Political Territorial Organizations (PTO) invited to participate in engagement activities are: Anishinabek Nation, Union of Ontario Indians, Chiefs of Ontario, Grand Council Treaty #3, Independent First Nations Alliance (IFNA), Keewaytinook Okimakanak/Northern Chiefs Council, Matawa First Nations Management, Matawa First Nations Tribal Council, Nishnawbe Aski Nation, Shibogama First Nations Council, Windigo First Nations Council.

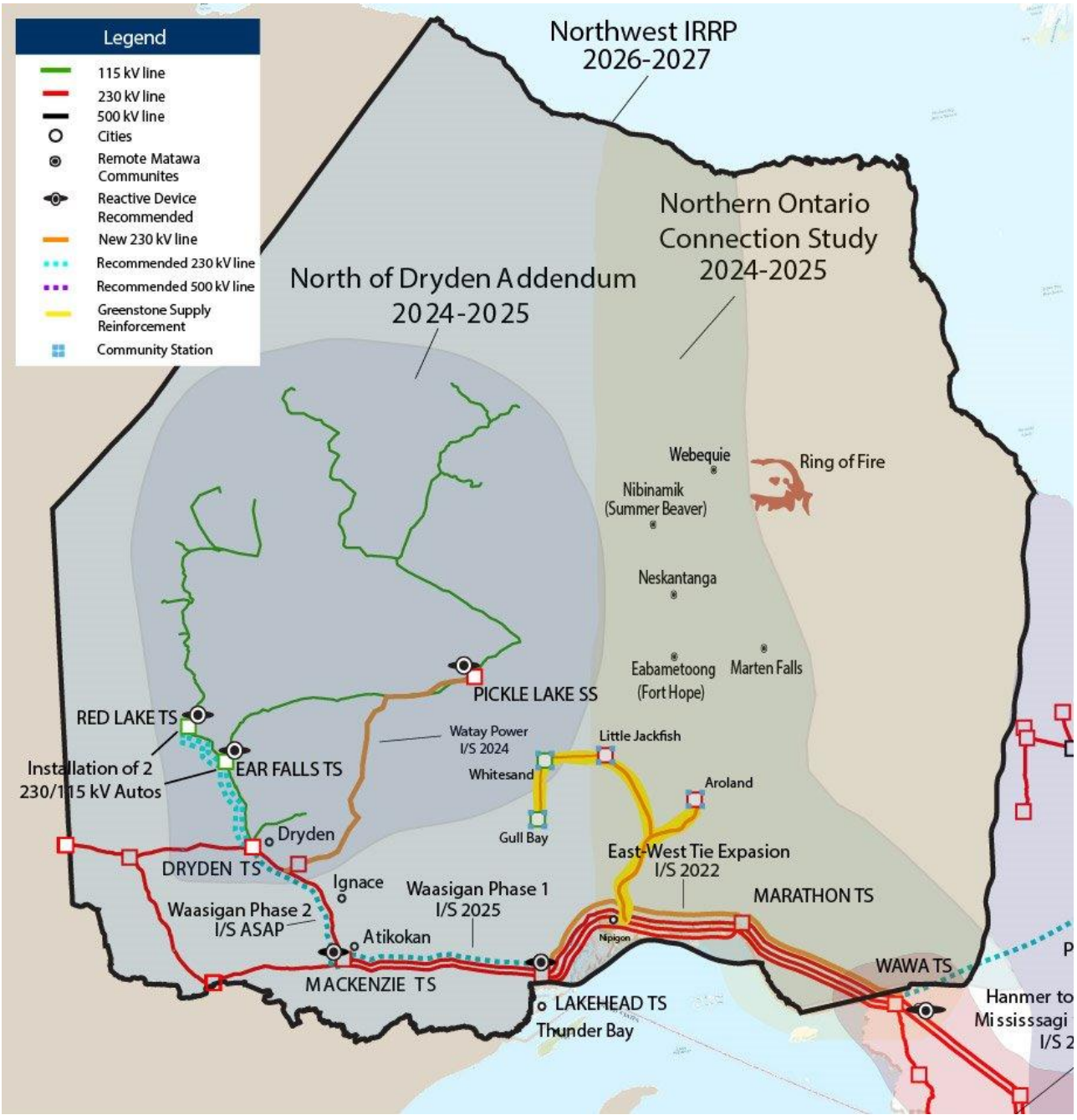
The Métis communities invited to participate in engagement activities are Métis Nation of Ontario, Red Sky Métis Independent Nation.

The electricity system supplying Northwest Ontario consists of a high voltage (230kV and 115kV) network of transmission lines. Power from the 230kV network is delivered to communities and customers through 10 transformer stations located throughout the region that supply lower-voltage (<50kV) distribution networks and, in some cases, large individual customers.

In Northwest Ontario, the distribution systems that deliver power to homes and businesses are managed and operated by three local distribution companies (LDCs): Synergy North, Atikokan Hydro, Sioux Lookout Hydro, Hydro One (Distribution), Hydro One Remote Communities Inc. and Fort Francis Power Corporation.

The IESO, the LDCs, Hydro One Transmission and Wataynikaneyap Power form the Technical Working Group (TWG) are tasked with developing the IRRP.

Figure 1 | Northwest Ontario Electricity Infrastructure



The current regional planning cycle began with the **Needs Assessment** report published by Hydro One in September 2025, 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-led regional planning process began with a scoping assessment to determine the most appropriate planning approach to meet electricity needs. The Scoping Assessment Outcome Report is available on the Northwest Regional Planning engagement webpage. To keep pace with rapid growth and economic development in Northwest Ontario, the

IESO and the Northwest Region Technical Working Group (including local distributors and transmitters) have implemented a streamlined approach., which accelerated the starting date of the **Integrated Regional Resource Plan (IRRP).**

The IRRP will include recommendations to maintain reliability of supply to the region over the next 20 years (2025-2044). To develop the IRRP, the Technical Working Group will work to gather data, identify needs and issues, examine integrated options, recommend actions, and develop an implementation plan.

The goal of the IRRP is to illustrate the integration of forecast electricity demand growth, electricity demand-side management (eDSM) with transmission and distribution system capability, relevant community plans, other bulk system development and the potential of distributed energy resources (DERs). Both non-wires and wires solutions will be examined, and communities and stakeholders will be engaged on the options.

To keep up with continued demand growth, the IESO has undertaken significant planning work to address capacity needs to the electrical areas in Northwest Ontario. Previous electricity planning cycles have recommended

- To address the supply capacity need in Red Lake, a new double-circuit 230 kV transmission line from Dryden TS to Ear Falls TS to Red Lake SS is recommended.
- In the Pickle Lake and Ear Falls pocket, reactive support is recommended to allow for full utilization of existing and recommended transmission lines.

Further details about previous cycle recommendations can be found on the **Northwest Ontario engagement webpage**.

Northwest Ontario Integrated Regional Resource Plan

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

Their work is intended to focus on, but is not limited to the following areas, as outlined in the 2025 **Northwest Ontario Region Scoping Assessment Outcome Report.**

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

ENGAGEMENT OBJECTIVES AND SCOPE

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

- Aligns with community perspectives on local needs
- Incorporates options to meet the growing electricity demand in the region taking into consideration local energy priorities
- Ensures a reliable source of electricity in the region over the next 20 years.

As a general principle in engagement, the IESO strives to make relevant information available throughout the development of an IRRP to enable meaningful feedback to the process and decisions to be made. Throughout the planned initiatives to engage communities and stakeholders, the IESO will seek input on:

- Local and regional growth and economic development
- Projects that may have an impact on local growth rates and electricity demand (e.g. community development, regional transit expansion, electrification, large incremental loads connecting to the system, significant DER projects, etc.)
- Options for addressing local electricity needs, including non-wires alternatives (e.g., eDSM and DERs) and local support and interest for developing those options in the near- (five year), medium- (10 year) and long-term (20 year)
- Information from municipal plans including the implementation of those projects that could impact electricity use, specifically from community energy plans, energy reporting/eDSM plans, official plans and secondary plans

Topics out of scope for discussion include:

- Projects and plans already underway as part of the previous planning cycle
- Policy-level decisions or direction
- Provincial procurements
- 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 stakeholder, however, those that may be particularly interested include:

- Municipalities (e.g., elected officials, planning, sustainability, climate change and economic development staff)
- Indigenous communities
- Consumer groups and associations (e.g., community/resident associations, business improvement areas, home builders' associations, etc.)
- Economic development agencies, local boards of trade and/or chambers of commerce
- Academia and research organizations (e.g., colleges and universities)
- Environmental groups and associations
- Other public sector organizations (e.g., hospitals and school boards)
- Energy service providers
- Generators
- Businesses and other private entities
- Residents

The IESO will also conduct targeted outreach to specific stakeholders and communities where unique local needs and issues need further investigation. The content and outcome of these discussions will be shared through the other activities that will be undertaken as part of 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 External Relations Engagement Framework**.

This is a public engagement process. A **dedicated engagement webpage** will house all the information for the IRRP while the plan is in development. Engagement sessions will be held throughout the engagement initiative to keep all interested parties informed and provide opportunities to provide input into IRRP development. Typically, engagement sessions are carried out at three major junctures during IRRP development:

1. Draft engagement plan and the regional load forecast
2. Defined needs and potential options; and
3. Options evaluation and draft recommendations.

Based on the results and progress of planning and engagement efforts, additional engagement sessions may be incorporated into the engagement process.

A feedback form will be provided for interested parties to provide their input for consideration in the planning process. Comments will be accepted typically over a three-week period following each engagement session. Written feedback will be posted (with consent) along with IESO responses on the engagement webpage.

In addition to public engagement sessions, one-on-one discussions with key communities and stakeholders, as identified, may take place to help progress through each stage of the IRRP.

Following completion of an IRRP, the full report, including all accompanying appendices and associated datasets, will be archived on the IESO's Northwest Ontario regional planning webpage. A high-level schedule of these items is provided below, and it should be noted that these activities and timing may evolve as the IRRP work progresses.

PROPOSED ENGAGEMENT SCHEDULE

Date	Event/Objective	Expected Actions/Notes
Q4 2025	**One-on-one discussions** with key communities and stakeholders (eg. NOMA), as identified	• Seek input on needs and developments to inform demand forecast • Consider input to inform next engagement phase
Q2 2026	**IRRP engagement launches**	• Register to attend public webinar #1
Q2 2026	**Public Webinar #1** • Summary of input from targeted discussions • Provide update on planning activities underway	• Seek input to inform electricity demand forecast • Seek input on draft engagement plan

	• Summarize preliminary regional demand forecasts, draft engagement plan	• Post feedback and IESO response to feedback, including rationale
Q2 2026	**One-on-one discussions** with key communities and stakeholders, as identified	• Seek input on local priorities, preferences and developments to inform potential needs and options • Consider input to inform next engagement phase
2026	**Public Webinar #2** • Summary of input from targeted discussions • Overview of defined needs and range of options/solutions to be examined • Discuss considerations for communities and interested parties to consider in medium- to long-term planning	• Seek input to inform potential needs and options analysis • Post feedback and IESO response to feedback, including rationale
2026	**One-on-one discussions** with key communities and stakeholders, as identified	• Seek input on local priorities, preferences and developments to inform recommendations • Consider input to inform next engagement phase
2026/2027	**Public Webinar #3** • Summary of input from targeted discussions • Overview of options analysis and draft IRRP recommendations • Discuss considerations for communities and interested parties to consider in the medium- to long-term planning	• Seek input on the proposed plan recommendations • Post feedback and IESO response to feedback, including rationale
Q1 2027	**Finalize IRRP**	• Post final report online • Engagement will close but the webpage will remain live for one year

		• Conduct survey on engagement process

Appendix

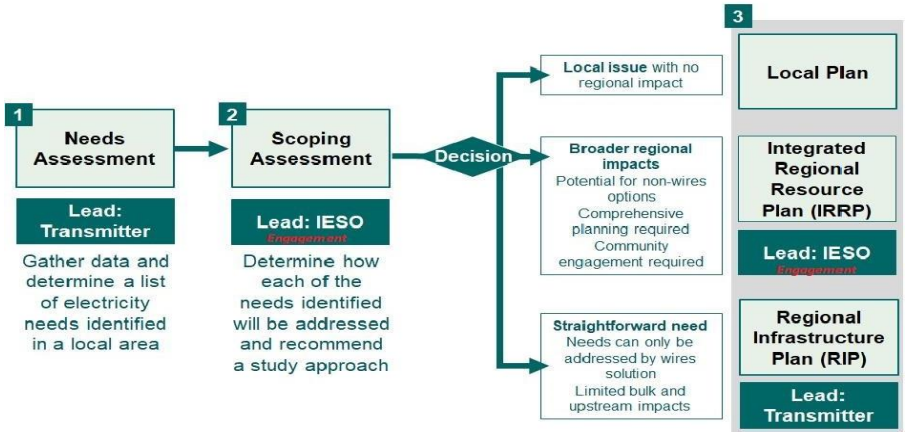
Appendix

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

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

Regional Planning Information and Data Availability

Table 1 describes the categories of regional planning information and data and the opportunity for input and timing in which it is typically made available during an IRRP.

Table 1 | Summary of Regional Planning Information

Data	Description of Data	Opportunity for Input	Additional Details
Regional Planning Dashboard	Provides comprehensive overview and status update of the various regional planning activities across Ontario, including the planned engagements for the next two quarters	No	Updated biannually and available for download on the IESO website: Regional Planning (ieso.ca)
Engagement Plan	Describes number of engagements and topics to be discussed at each engagement	Yes	Engagement plan posted prior to first IRRP engagement for feedback
Planning Assessment Criteria	Technical requirements and performance criteria used to determine needs, including load supply, load security, load restoration etc.	No	Referenced in the IRRP report; and available in the IESO's Market Rules & Manuals Library: Market Rules & Manuals Library (ieso.ca)
Load Forecast (PDF)	LDC's methodologies for forecast development; and methodologies for considering the contribution of energy efficiency savings and embedded generation resources	Yes	High-level summary provided at first IRRP engagement to solicit input on load forecast; detailed methodologies are published with the IRRP report
Load Forecast (Spreadsheet)	Forecast annual station peak electricity demand (in megawatts), power factor assumptions; information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage	Yes	Overview of preliminary forecast is delivered with first engagement; draft data published following engagement comment period; final dataset published with IRRP report
Load Forecast – Energy	Forecast of annual peak demand reductions from energy	Yes	Provided with the forecast annual station peak electricity

Efficiency (Spreadsheet)	efficiency (in megawatts), at a level of granularity consistent with the forecast annual station peak electricity demand		demand (draft data after the first engagement; final data with IRRP report)
Load Forecast – Embedded Generation (Spreadsheet)	Forecast of annual peak demand reductions from energy efficiency (in megawatts), at a level of granularity consistent with the forecast annual station peak electricity demand	Yes	Provided with the forecast annual station peak electricity demand (draft data provided after first engagement; final data with IRRP report)
Historical Demand	Historical electricity demand data (in megawatts), may be summer, winter, or both depending on peak load characteristics of the region, and may include select years and/or focus on select stations/areas; information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage	No	Data posted prior to first IRRP engagement to solicit input on load forecast; published with the IRRP report
Transmission end-of-life (EOL) Information	Asset age data for major transmission facilities owned by Hydro One; a ten-year outlook of other transmission asset owner EOL information to be provided as part of the Needs Assessment at the outset of each regional planning cycle	No	This data is updated by Hydro One every five years; a consolidated list of end-of-life information for all transmission asset owners will be updated annually
Transmission System Assumptions	Includes transmission facilities assumed in the IRRP analysis such as new facilities and expected in-service dates, transmission infrastructure ratings (e.g., line conductor, transformer ratings, etc.), seasonality, etc; some information may be redacted to mitigate potential system security risks	No	Facilities in scope of the IRRP and expected in-service dates are published in the Scoping Assessment Outcome Report; and additional details published in the IRRP report
Resource Assumptions	May include operational assumptions such as hydroelectric output, capacity	No	General and/or aggregate assumptions by resource type

	factor assumptions, power factor assumed in the analysis etc. Operational performance of individual facilities may be deemed commercially sensitive.		are published with the IRRP report
Planning Scenarios	Planning contingencies studied in the analysis; some contingencies and extreme events are subject to redaction to mitigate potential system security risks	Yes	Summary published with the IRRP report
System Needs	Summary of needs identified, timing and location of needs, including any applicable capacity requirements, EOL considerations, load restoration and supply security needs, etc.	No	Presented in materials provided in advance of the second IRRP engagement about the needs identified in the region; and published with the IRRP report
Non-Wires Options Evaluation (PDF)	Energy efficiency potential for areas with system needs, if applicable as a feasible option (annual and/or cumulative potential, in kilowatts and/or megawatts); sources of energy efficiency information and data	Yes	Preliminary information discussed at third IRRP engagement with opportunity for stakeholders to provide input; and published with IRRP report
Non-Wires Options Evaluation (Spreadsheet and/or PDF)	Detailed characterization of system needs, i.e., load and energy not served, for areas with system needs where non-wire options are feasible (for select years within the study period, in megawatts); information is subject to redaction and/or aggregation to protect against identifying specific customer electricity usage	No	Summary provided with engagement materials prior to third engagement, where options are presented and discussed; draft data provided following comment period; and final data published with IRRP report
Economic Assessment Assumptions	Cost of each alternative considered, expressed in terms of Net Present Value; and including assumptions such as the following: • Year which cash flows are expressed	Yes	Preliminary information provided and discussed at the third IRRP engagement on solution options with an opportunity to provide feedback; and final assumptions published with the IRRP report

• Discount and inflation rate (in percent) • Life expectancy of the options considered (in years)		