Round 1 Engagement Summary

In our most recent engagement with Manitobans as part of developing the <u>2025 Integrated Resource Plan (IRP)</u>, we asked for feedback from our customers and interested parties to understand their perspectives and their potential future energy needs. The following is a summary of what we're hearing and how it is informing our process.

How we're listening

Our first round engagement took place between November 2024 – January 2025 and included workshops, meetings, interviews and surveys conducted with Manitobans with a wide range of perspectives and living situations. We also created a Technical Advisory Committee to bring together diverse perspectives from representative groups across Manitoba to delve into more detail on topics related to long-term energy planning.



We're continuing to hold conversations with Manitobans on the 2025 IRP. Our second round of engagement begins in Spring 2025, and a full engagement report will come with publication of the IRP in Fall 2025.

What we asked

We asked questions in Round 1 engagement to seek feedback on:

- The key inputs and scenarios to be explored in the 2025 IRP. This includes future energy needs of customers, along with the choices they might make, to better understand how energy demand might grow over time.
- What factors might be important to consider when evaluating our energy planning.



What we're hearing & how we are incorporating feedback

Engagement on our energy future generates important dialogue and gathers diverse feedback from various audiences. While not all feedback is directly related to the IRP every piece of input is valued. We review all feedback and consider this feedback for our 2025 IRP or for other Manitoba Hydro activities, such as ongoing energy planning completed outside of the IRP.





PROPOSED LOAD PROJECTIONS

Three proposed load projections were developed to evaluate a broad range of future electricity and natural gas demand to the year 2050. These included load projections to achieve a net-zero economy by 2050.

What we heard:

- Uncertainty about Manitoba Hydro's role in a net-zero economy and relationship to other provincial policy.
- Load projections should consider what is required to achieve zero emissions from the transportation and space heating sectors by 2050.
- Economic development, in particular the mining sector, has significant potential to influence load projections and it was suggested that the baseline load projection may be underrepresenting this impact.
- Concerns about the reliance on Direct Air Capture in 2049/50 to achieve a netzero economy.
- Demand response planning assumptions should have a higher anticipated impact.

What we did with this feedback:

- Feedback confirmed the three load projections reflected broad range of potential energy needs in Manitoba.
- We will include analysis to understand how energy demands might change if ground transportation and space heating produce no greenhouse gas emissions by 2050 (i.e. they achieve absolute zero).
- Feedback on assumptions related to the impact of economic development and concerns related to relying on Direct Air Capture are already considered through the planned modelling and analysis, so no changes are needed.
- We adjusted the planning assumptions graphic to more accurately represent that demand response is being maximized in every load projection.

••• Other feedback heard helped confirm expectations about future energy demand:

Customers shared future energy choices they are considering which can give an indication of how energy demands might grow over time:

- Residential customers identified several energy choices they are considering, including showing an interest in tracking and managing their energy use through smart home devices. More customers are thinking about buying electric vehicles and upgrading home charging capabilities. There is also a growing interest in installing solar panels with some considering battery storage. Interest in heat pumps is slowly increasing, while customers are slow to plan a switch from gas space heating to electric.
- Communities shared energy goals including a focus on self-generation opportunities (solar/wind) including energy storage, energy efficiency upgrades, fleet electrification and charging infrastructure, and supporting policy and by-law changes.
- Large industrial customers expect to use more electricity in the future. More businesses are monitoring emerging and mature technologies and developing plans to decarbonize through electrification, including assessing feasibility of fleet electrification.



RESOURCE OPTIONS STRATEGIES

Four resource options strategies were proposed to reflect policy assumptions that increase the impact of what generation resource options may be available to serve future energy demand.



What we heard:

- Strategy assumptions that eliminate all fuelbased generation resource options (such as hydrogen and biomass) are not reflective of realistic policy and could over restrict the analysis.
- Allowing fossil fuel generation for extreme circumstances is an acceptable assumption.
- Participants requested clarification on the resource options inventory, including:
 - How energy storage is being considered as a resource option.
 - The difference between the terminology 'energy' and 'capacity'.
 - How resource options costs are being considered.
 - How exports come into play in determination of capacity and energy need dates.

What we did with this feedback:

- We revised the resource options strategies to allow the use of hydrogen, biomethane, and biomass fuels for electricity generation (i.e., only restrict the use of fossil fuels in nonextreme circumstances).
- To address the detailed questions related to the resource options inventory, an additional meeting was scheduled with the Technical Advisory Committee.



SCENARIOS & SENSITIVITIES

Eight scenarios were proposed where each represents a specific energy future to study in the 2025 IRP. In addition to the scenarios, sensitivities are proposed to help us understand how changes in an assumption or constraint may impact our results.

What we heard:

- Concurrence that only modelling the most likely scenarios was an acceptable strategy.
- Some participants suggested considering other scenarios and sensitivity analysis, including:
 - Energy market prices
 - Technology/equipment availability
 - Behavioural changes
 - Operation cost impacts
 - Overbuilding of resources
 - Operations and maintenance levels

What we did with this feedback:

- Feedback confirmed the eight proposed scenarios.
- We added a sensitivity to study the impacts of further restrictions on resource options excluding the ability to use hydrogen, biomethane, and biomass fuels for electricity generation.
- Some of the suggestions will be considered for ongoing energy planning because they are out of scope for the 2025 IRP.
- Other suggestions would already be captured through planned modelling and analysis, including planned sensitivities, so no changes are needed.





What we heard:

- The appropriate evaluation themes and metrics were included.
- Reliability is consistently rated the most important factor in energy planning and energy planning must balance factors related to costs, environment, and social impacts. This includes focusing on replacing aging infrastructure while also building to accommodate future growth and development.
- How the themes will be weighted against each other is important and requires further clarification.
- Importance of considering past impacts in the evaluation metrics.
- Reconciliation is a multifaceted journey that includes acknowledging and addressing past harms on Indigenous Peoples and takes into consideration much more than social impacts.
- Economic reconciliation is appropriate, however it should be considered as its own value theme as part of the future development plan evaluation process.
- The social value theme could be reframed to socio-economic to reflect the economic based metrics.
- Clarification is needed to detail if the evaluation will consider the integration of all systems (generation, transmission, distribution, gas).
- Some participants suggested additional evaluation measures:
 - Energy intensity
 - Health and wellness benefits and/or risks
 - Reliability of the transmission and distribution system
 - Climate change impacts to water supply and energy demand
 - Reliance on HVDC and energy security when evaluating for resource diversity
 - Embodied carbon, or life cycle emissions
 - Mitigation strategies required due to environmental impacts

What we did with this feedback:

- We have reframed the social theme to socioeconomic based on engagement feedback.
- We will use the feedback shared to make the evaluation metric descriptions clearer, so its easier to understand the details and considerations for each one.
- We will incorporate the feedback shared on trade-offs between the evaluation metrics when applying them to the potential development plans.
- Some suggestions, such as energy intensity, will be considered for future energy planning, as we do not currently have the data and methodology to complete for the 2025 IRP.
- Other suggestions would already be captured through planned modelling and analysis, including planned sensitivities, so no changes are needed.

Other feedback that does not directly impact the 2025 IRP, but will be considered in ongoing energy planning or shared with relevant teams at Manitoba Hydro:

- It was noted that the geographic location/ regional differences should be considered as unique individual, community, municipal or cultural perspectives differ across Manitoba.
- Many communities shared that system reliability and enhancements to minimize outages is important, especially in rural and northern Manitoba.
- Communities expressed a need for more energy related information and resources, with many expressing a desire to continue to engage and work in partnership with Manitoba Hydro to plan for future needs.



The cost of doing nothing