



EnergyForward



THE NEXT CHAPTER

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2025 Integrated Resource Plan



Overview of Minnesota Power



1,100
Employees



150,000 Total
Customers

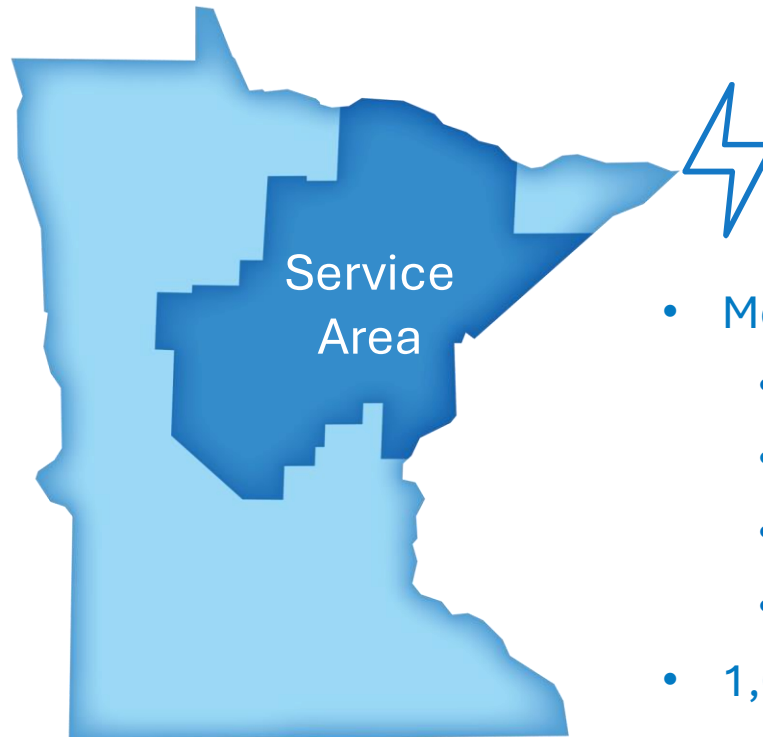


Nation's
Largest
Industrial
Operations



14 Municipal
Customers

ALLETE is the largest investor in renewable energy in the country for any IOU it's size; MP is the most renewable utility in MN (over 50%) and has exceeded MN's energy conservation goals for the last 15 years.



Service
Area



**More than 1,630 megawatts of
Peak Demand from Customers**

- More than 1,340 megawatts of renewables
 - Approx. 870 megawatts wind
 - More than 370 megawatts hydro
 - 70 megawatts of biomass generation
 - More than 30 megawatts solar
- 1,000 megawatts of thermal generation

What is an IRP?

- 15-year outlook on the utility's plan to meet expected customer demand while ensuring safety, reliability, and reasonable costs
- One of the most important planning tools and road maps for each electric utility in Minnesota
- Reasonable plan to ensure utilities can meet customers' needs in a reliable and low-cost manner
- Plans include forecasts, evaluation of current assets and long-range power system planning
- Filed periodically with the Minnesota Public Utilities Commission
- Broad public process with opportunities for input

Minnesota Power's 2025 Integrated Resource Plan

2025 IRP Process

MINNESOTA PUBLIC UTILITIES COMMISSION INTEGRATED RESOURCE PLAN PROCESS

1) 2024 Engagement

- Regional economic development considerations
- Societal cost-benefit analysis of generating units
- Clean energy funding and goals
- Technical advisement and modeling input



Resource plan petition
filed & accepted 'if' complete



Comment period
(which may include
public meetings)

Opportunities for the public and interest groups to comment on the merits of the resource plan and propose alternative plans. This process step is iterative and may involve multiple rounds of comments.

TIME FOR
PUBLIC
COMMENTS

2) Modeling

3) Plan Development

4) File the IRP March 3, 2025

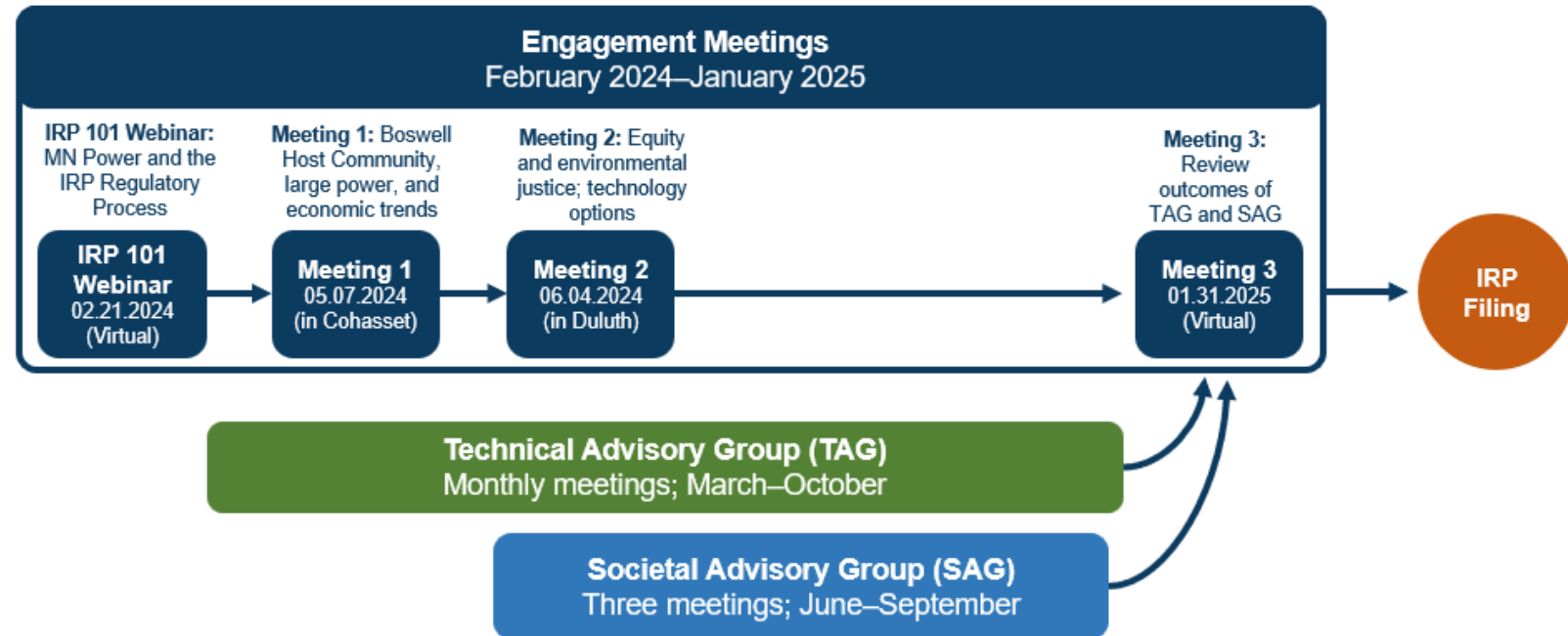
- Public Hearings and Comments
- Initial and Reply Comments
- Commission Hearing



Commission decision

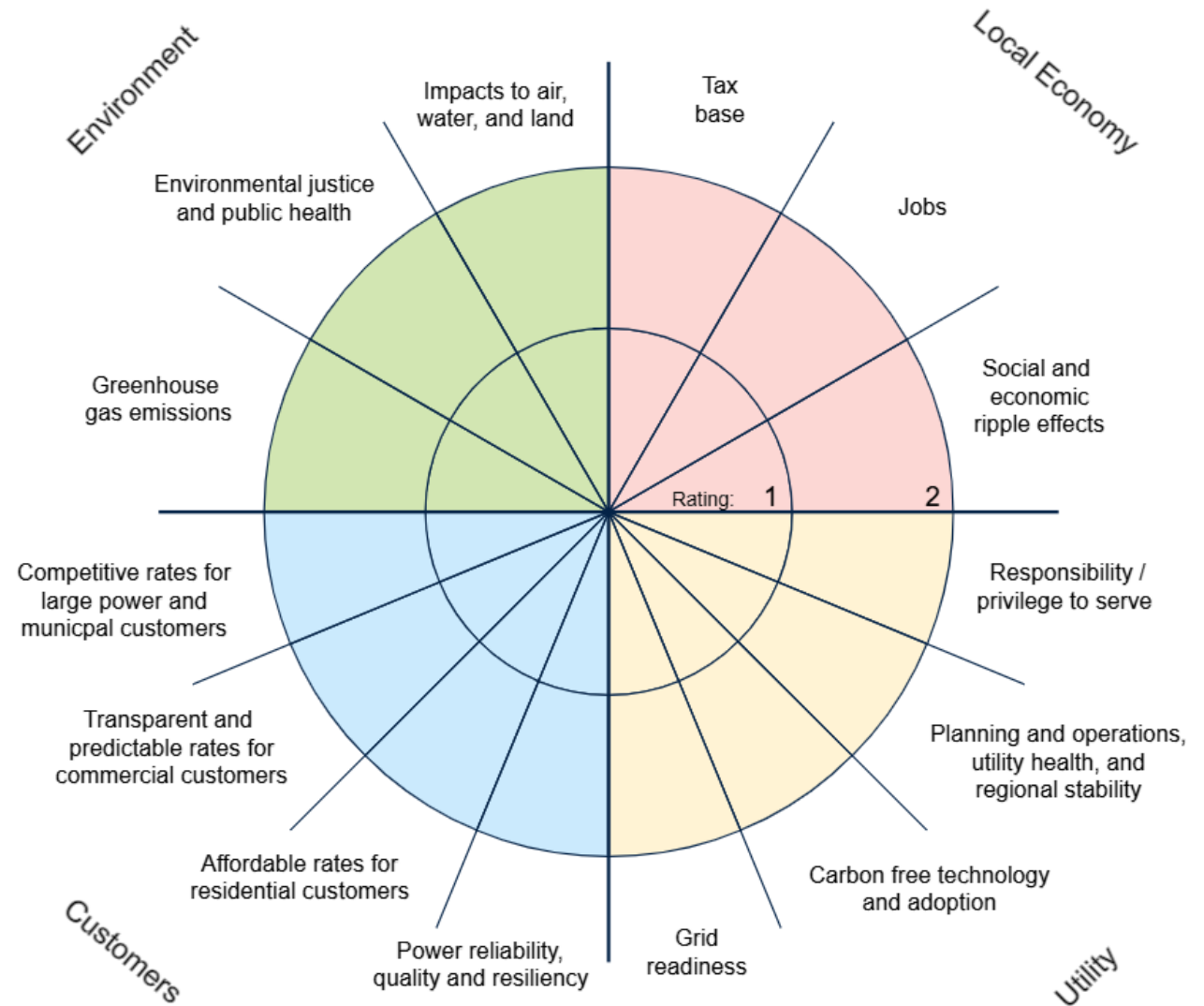
Staff compiles a summary of the input received. Then Commissioners will make a decision at an Agenda Meeting.

IRP Engagement



IRP Engagement

Minnesota Power's IRP Impact Map



Foundations of *EnergyForward*

- **Historic decarbonization:** First utility to deliver 50% renewable energy in our region.
- **Renewable energy expansion:** Increasing wind, solar and battery storage capacity to achieve 90% renewable by 2035.
- **A cease-coal transition plan:** Cease coal by 2035.
- **Grid modernization:** Investing in transmission, smart grid technology and energy storage.
- **Customer affordability:** Making smart investments that ensure a stable power supply our customers can afford.
- **Meeting demand reliably:** Meeting our region's growing energy demand while safeguarding reliability.



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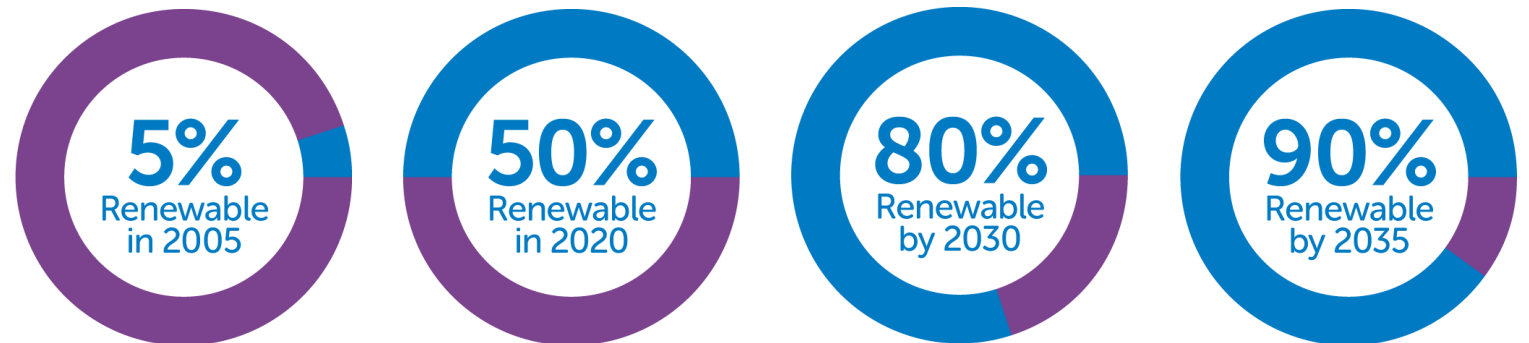


A reliable path toward a carbon-free future

IRP Goals:

- Safeguard reliability
- 90% renewable energy by 2035
- Address increasing regional demand
- Replace coal with a dependable energy supply
- Put forward a plan that keeps bills as low as possible
- Meet Minnesota's carbon-free standard
- Reflect input from customers, communities, regional advocates and tribal nations

The plan results in 95% reduction of carbon from 2005 levels:



Plan highlights



400 megawatts of new wind

Add 400 megawatts of new wind projects by 2035 in addition to the 700 megawatts of renewables now in development



Expand energy storage resources by 100 megawatts by 2035



Maximize and expand customer-focused programs

Including energy efficiency and demand response



Add approximately 1,000 megawatts of natural gas capacity

Replacing the company's last coal-fired baseload generation at Boswell Energy Center for immediate carbon reductions

- Refuel Boswell Unit 3 to natural gas by 2030—355 megawatts
- Add about 750 megawatts of new natural gas
- Will develop refueling options for Boswell Unit 4 and revisit in next Integrated Resource Plan

Conversion and continued use of Boswell Energy Center



Boswell Energy Center (BEC) Units 3 and 4 are Minnesota Power's two remaining coal units

Unit 3:

- Scheduled to cease coal in 2030
- Will run solely on natural gas by 2030
- Will continue to explore biomass fuel opportunities
- Leveraging existing infrastructure and continuing local investment

Unit 4:

- Ensuring reliable energy for customers
- Committed to cease utilizing coal in our power supply by 2035
- Will be adapted to be 40% natural gas by 2030 if required by current carbon regulations
- Coordination underway with WPPI partner on future alternatives

Increasing energy demand

This IRP outlines a plan to meet increased demand with a safe, reliable and increasingly clean energy supply.

Several key factors contribute to rising energy demand in Minnesota:

- 1 Industrial growth and new technologies
- 2 Electrification of transportation, heating and other systems
- 3 Extreme weather and climate adaptation, increased heating and cooling demand

The road to Minnesota's carbon-free standard

We are committed to meeting our state's goal for a carbon-free future.

- We will get there the right way, by safeguarding reliability and keeping bills as low as possible.
- We expect to meet the 2035 milestone of MN's carbon-free standard with 90% renewable energy.
- We will prioritize reinvestment in our region to support the communities we serve.
- We expect approval of the IRP in 2026.

Together we're moving EnergyForward.



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What's Next: How to Participate

Soon, the MPUC will open a 4 month comment period on whether the Commission should approve, modify or reject MP's IRP.

- The public may submit comments to the MPUC in the IRP docket No. E015/RP-25-127
- Multiple ways to submit comments:
 - To submit a comment online, go to <https://mn.gov.puc/get-involved/public-comments/>
 - Email consumer.puc@state.mn.us
 - Mail to: Minnesota Public Utilities Commission, 121 7th Place East, Suite #350, St Paul MN 55101
 - The MPUC will hold a public hearing on this matter at a future date.



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Thank you



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The statements contained in this presentation and statements that ALLETE may make orally in connection with this presentation that are not historical facts, are forward-looking statements. Actual results may differ materially from those projected in the forward-looking statements. These forward-looking statements involve risks and uncertainties, and investors are directed to the risks discussed in documents filed by ALLETE with the Securities and Exchange Commission.