

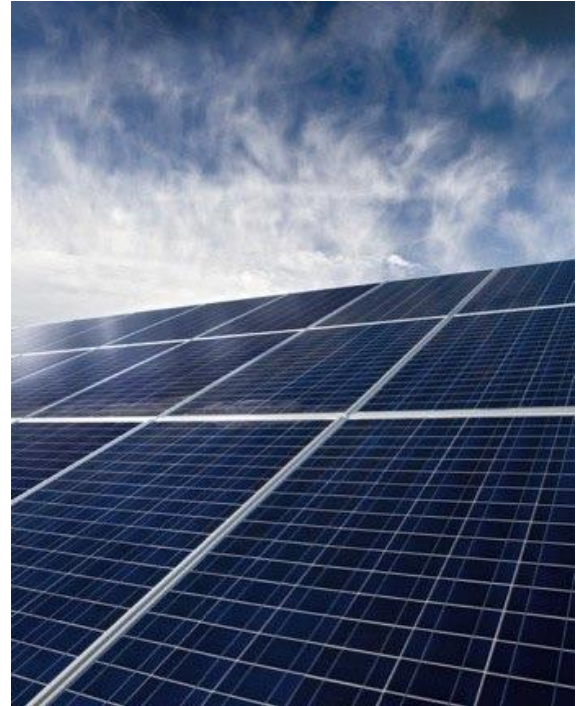


Upper Midwest Integrated Resource Plan Regional Council of Mayors

February 8th, 2021

Xcel Energy Team With You Today

- **John Marshall** – Director, Community Relations & Foundation, MN, ND, SD
- **Bria Shea** – Director, Regulatory and Strategic Analysis
- **Farah Mandich** – Strategy & Planning Specialist
- **Nick Martin** – Policy & Outreach Manager
- **Michelle Swanson** – Manager, Community Relations
- **Mark Osendorf**- Manager, Community Relations



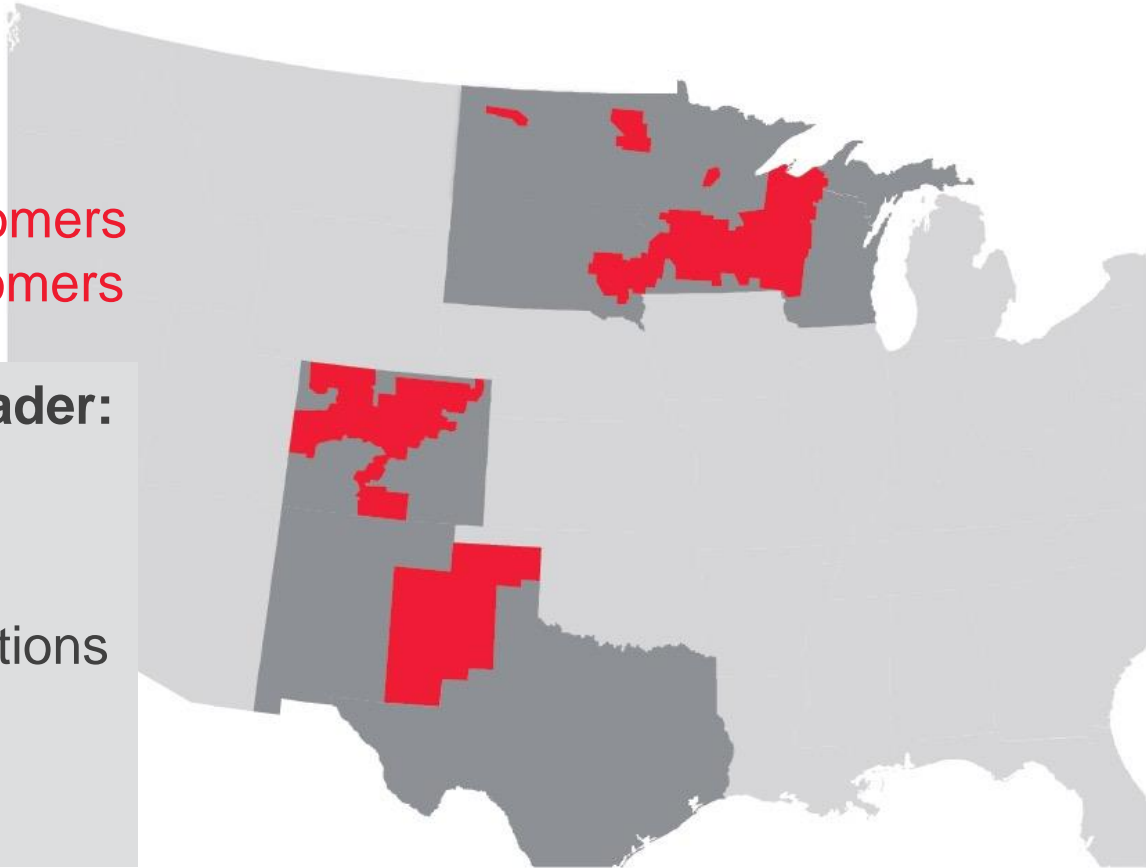
Xcel Energy

Serving eight states

- 3.6 million electricity customers
- 2 million natural gas customers

Nationally recognized leader:

- Wind energy
- Energy efficiency
- Carbon emissions reductions
- Innovative technology
- Storm restoration



Xcel Energy Priorities

Lead the Clean Energy Transition

- Aggressive carbon reduction goals
- Estimate 60% renewable energy by 2030

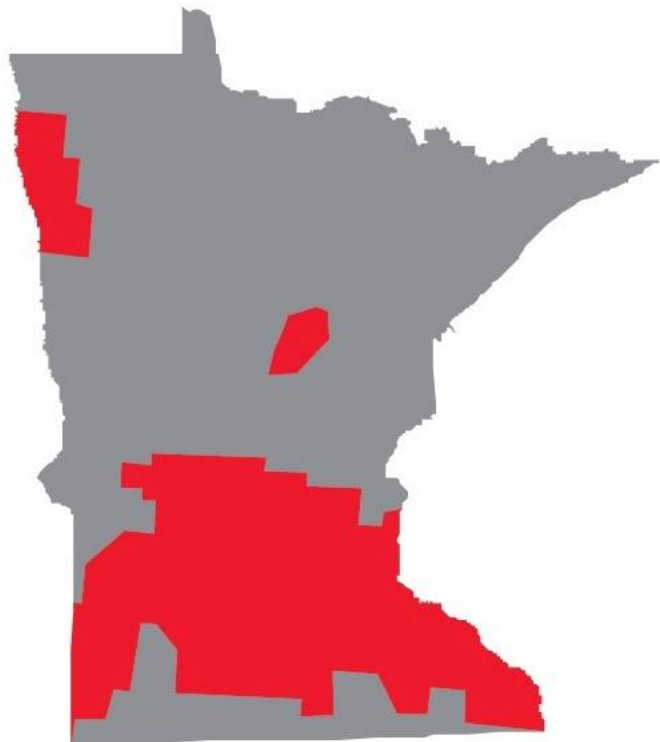
Enhance the Customer Experience

- Know our customers' needs and interests
- Make it easy to do business with us
- Deliver meaningful products, services and experiences

Keep Bills Low

- Bills below national average
- Low-cost renewables
- Extensive customer efficiency programs

Serving Minnesota



**1.3 million
Electric
Customers**



**460,000
Natural Gas
Customers**



**99.9%
Electric
Reliability**

Leading the Clean Energy Transition

A bold vision for a carbon-free future

2019



2030



2050



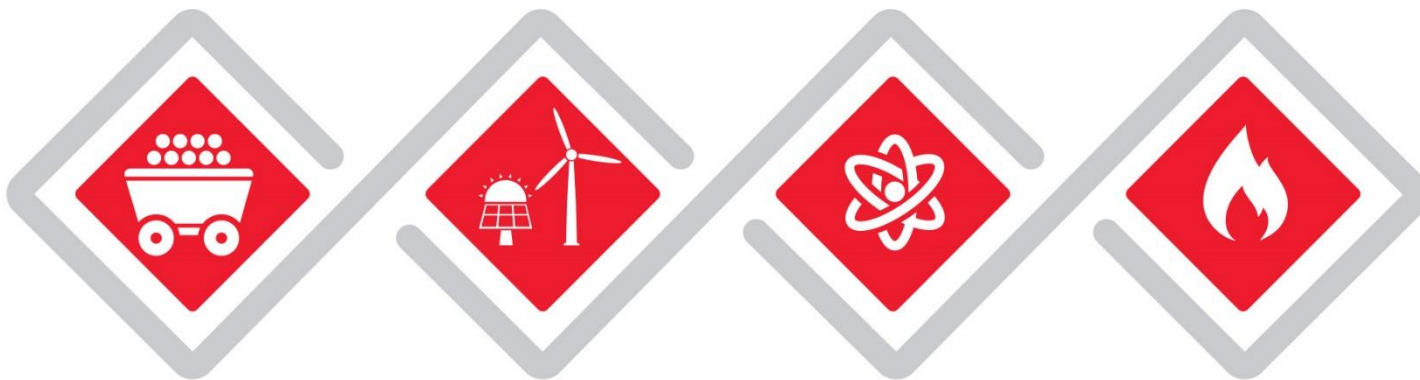
Upper Midwest IRP Overview



- **15-year plan (2020-2034) for full Upper Midwest** service area (NSP-M and NSP-W)
- Capacity expansion modeling to assess **size, type, timing** of **least-cost resource sets** that can serve future load
- Balances four core planning objectives



An Integrated Plan



Close coal plants

Retire the last of our coal plants in the Upper Midwest by 2030, a decade earlier than planned

Add renewables

Add more than 3,500 megawatts of solar by 2030, enough to power nearly 775,000 homes each year, and complete our largest-ever wind expansion by 2022

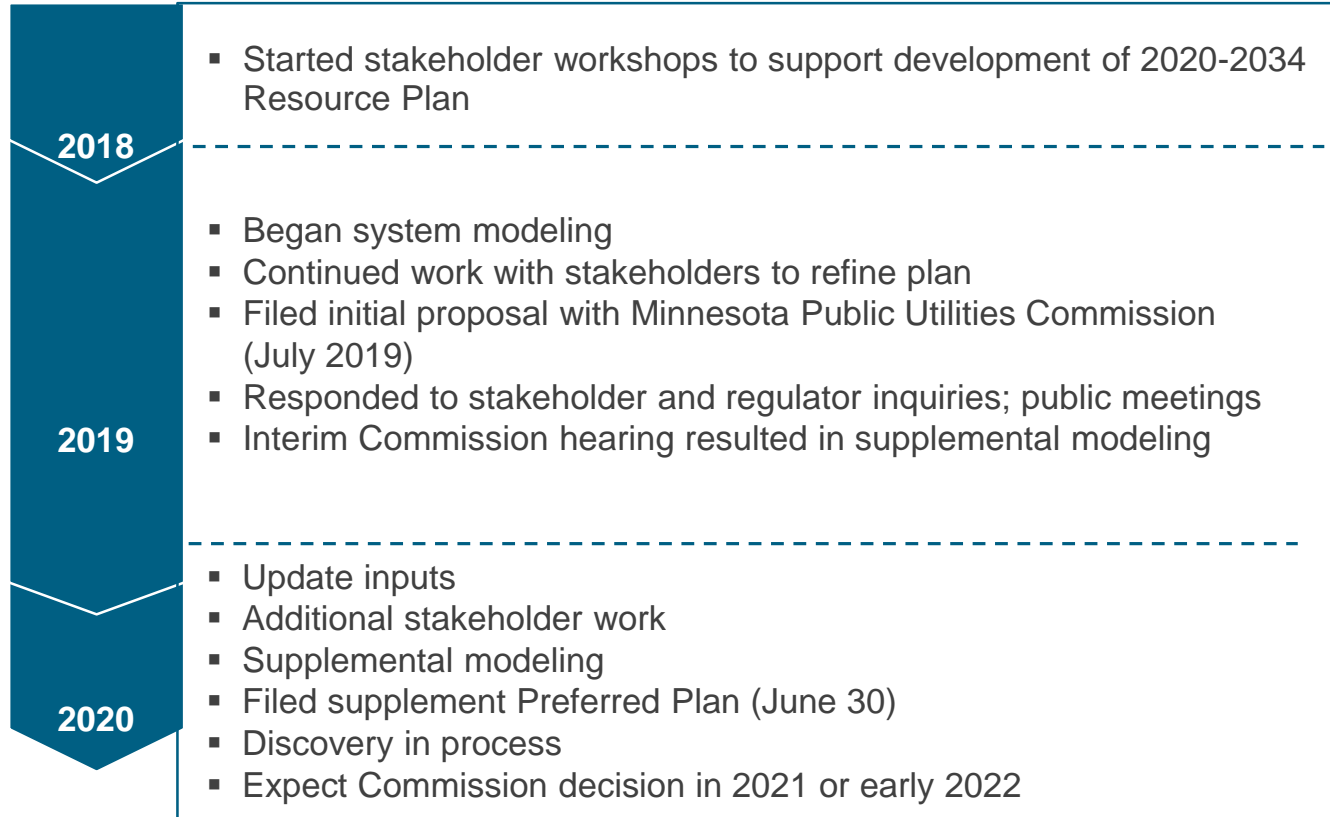
Continue carbon-free nuclear

Start the process to gain regulatory approval to run our carbon-free Monticello nuclear plant until at least 2040

Enable a carbon-free future

Use natural gas-fired plants in the coming years as a reliable, cleaner source of electricity as we add more renewable energy and build a carbon-free future

Upper Midwest IRP Process Thus Far

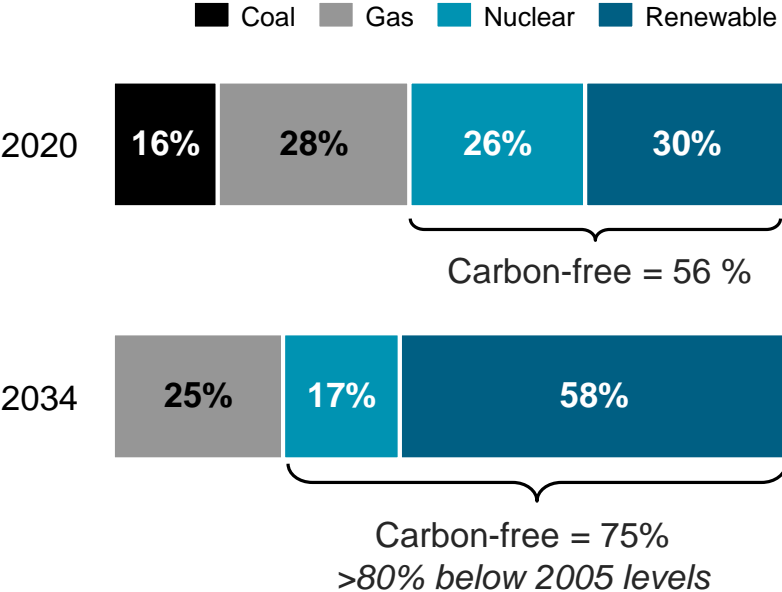


Key components

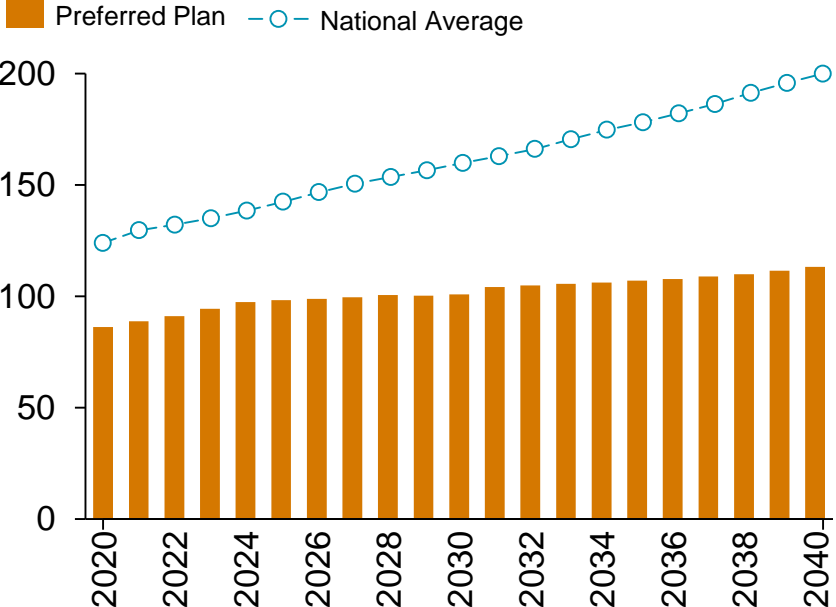
- **Substantial stakeholder engagement**
- **Extensive modeling**
- **Robust regulatory process**

Carbon and Customer Cost Impacts

Supplement Preferred Plan Generation Mix (percent of GWh, EnCompass analysis)

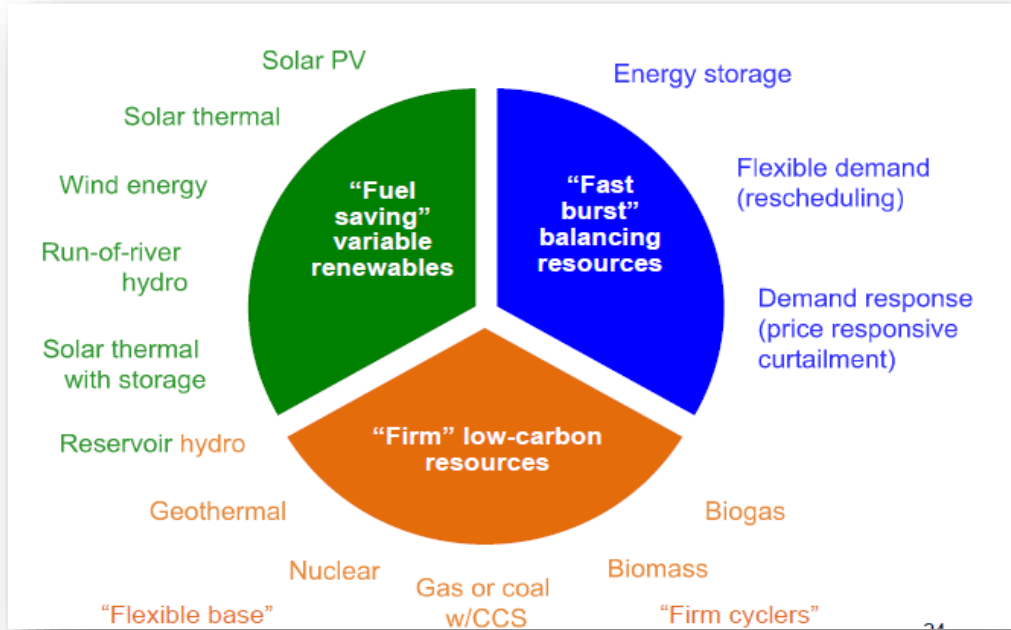


Average residential customer bills (\$ per month)



Resource Diversity is Key to Ensuring Reliability and to Mitigate Risk

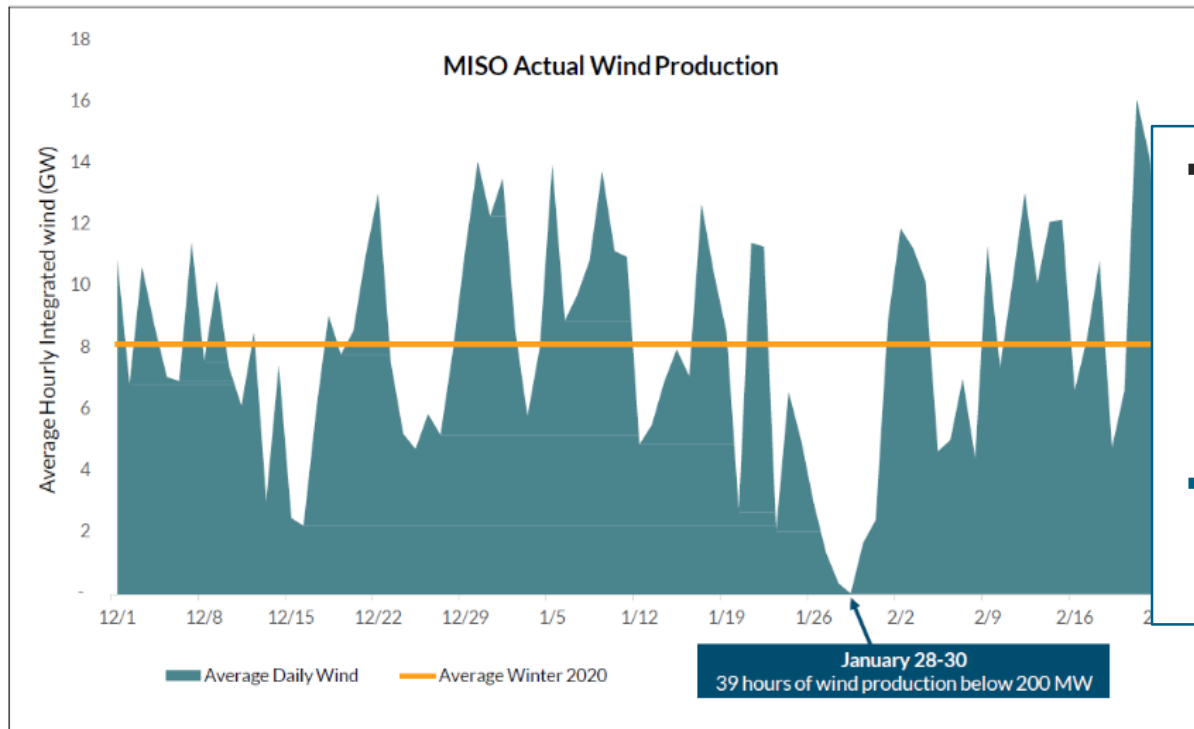
Generation mix building blocks



- Our plan **adds significant variable renewables** over the next 15 years
- "Firm" low-carbon resources remain **necessary components** of the electric system for reliability and flexibility

Resource Diversity Helps Ensure We Maintain Reliability Through Periods of Low Renewables

Example: MISO Late January 2019 Wind Event



- We want to **maximize carbon-free generation** on our system, but must appropriately consider risks associated with **higher shares of variable renewables**
- **8760 hourly analysis** helps us examine these and other issues

