

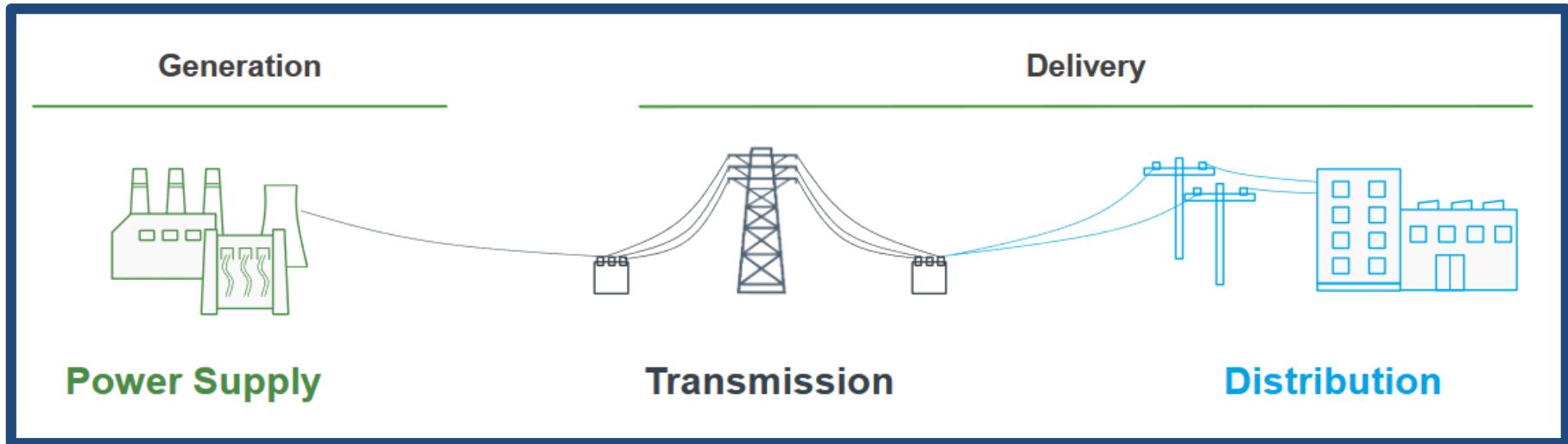
# Xcel Energy 2020-2034 Integrated Resource Plan

## Minnesota Local Government Clean Energy Coalition Engagement



**City of Northfield**  
January 12, 2021

# The Role of Electric Utilities



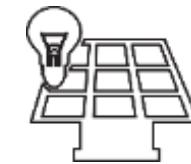
# What is an Integrated Resource Plan?

- An integrated resource plan (IRP) is a **public plan**, that sets the **long-term vision** for resource development in a utility's territory
- Utilities use IRPs to evaluate and communicate potential strategies for delivering reliable supply at the lowest system-wide cost **over 10 to 20 years'**
- Required by law, approved by the PUC

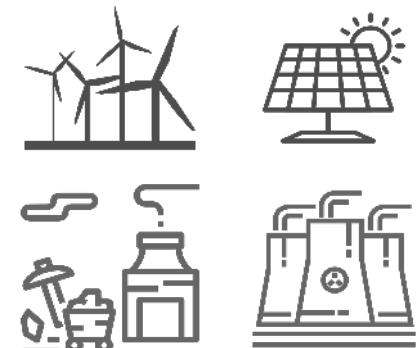
Customer Load Projections



Customer-side Resources



Utility-side Resources



# Xcel Energy's Preferred Plan 2020-2034 UPPER MIDWEST INTEGRATED RESOURCE PLAN

# Supplemental Preferred Plan



## **Coal:** Retires all MN plants by 2030

- King in 2028 (9 years early)
- Sherco 1 in 2026 and Sherco 2 in 2023 respectively, seasonal dispatch of Sherco 2 until retirement
- Sherco 3 by 2030 (10 years early)



## **Nuclear:**

- Extends the life of Monticello by 10 years to 2040
- Operate Prairie Island through current licenses (2033/2034)



## **Gas:**

- Retire: Cottage Grove (250 MW) in 2027, Black Dog 5 (300 MW) in 2032
- Build new 800 MW Sherco Combined Cycle Gas Plant
- Mankato Energy Center: PPAs through 2026 (Unit 1 – 375 MW) and 2039 (Unit 2 – 345 MW)

# Supplemental Preferred Plan



**Wind:** Add ~2,250 MW of wind by 2034



**Solar:** Add over 3,500 MW of utility-scale solar by 2030

- Community Solar: Assumes 751 MW online in 2034
- Rooftop Solar: Assumes 263 MW online in 2034



**Demand Side Management:** Achieve 2-2.5% savings annually

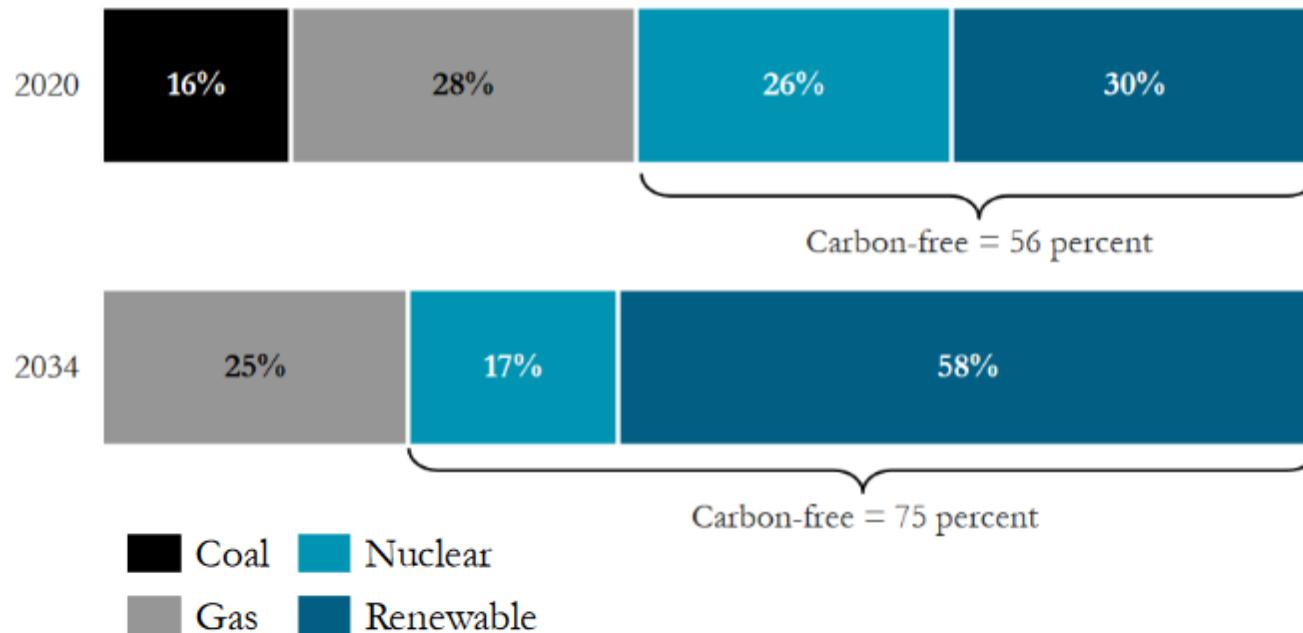
- Energy Efficiency: 780 GWh of annual savings through 2034 (up from 444 GWh annual savings)
- Demand Response: 1,500 MW by 2034 (incl. an additional 400 MW)



**Firm Peaking Resources:**

- Add ~2,600 MW of cumulative firm peaking, load-supporting resources by 2034
- May be energy storage, demand response, hydrogen, or gas

# Generation mix



# Equity Considerations



Cultivating a Diverse and Inclusive Workforce

Ensuring a Just and Equitable Workforce Transition

Commitment to Low-Income and Multifamily Energy Efficiency

Ensuring Equitable Customer Access to Solar Energy

Expansion and Widespread Adoption of Transportation Electrification

Electric Reliability and Locational Equity

# Timeline

July 1, 2019	Xcel filed initial 2020-2034 IRP
June 30, 2020	Xcel filed Supplemental Preferred Plan
Jan. 15, 2021	Parties' Initial Comments due
<b>March 15, 2021</b>	<b>Public Comment deadline</b> Parties' Reply Comments due
<b>Requested but not scheduled</b>	<b>Possible public hearings</b> Opportunity for oral or video comments
<b>TBD, 2021</b>	<b>PUC decides at public meeting</b> Parties testify and answer questions Public does not usually get to speak

# Why engage in the IRP?



- Local governments are important stakeholders:
  - Represent a large portion of customers and load
  - Have ambitious sustainability goals, especially in aggregate
- Resource decisions will impact ability to achieve energy and climate goals, as well as utility rates among residents
- Provides an opportunity to publicly highlight clean energy and carbon goals
- Build relationships with utility and regulators for future engagement
- Increase awareness among local government of utility plans and priorities, and vice versa to influence decision-making

# Community Energy & Carbon Goals

Carbon Reduction Goals	
Minnesota	
Eden Prairie	80% by 2050
Edina	30% by 2025, 80% by 2050
Mahtomedi	100% by 2050
Minneapolis	80% by 2050
Minnetonka	80% by 2050
Northfield	100% by 2040, carbon-free electricity by 2030
Red Wing	80% by 2040
Saint Louis Park	100% by 2040
Saint Paul	100% by 2050
Winona	100% by 2050
Wisconsin	
Eau Claire	100% by 2050
Colorado	
Boulder	80% by 2050
Denver	80% by 2050
Englewood	12% by 2030
Fort Collins	100% by 2050
Lafayette	80% by 2050
Lakewood	50% by 2050
Garfield County	100% by 2040

Renewable Energy Goals	
Minnesota	
Minnetonka	100% solar for city operations by 2020
Minneapolis	100% by 2022 for municipal facilities
	100% by 2030 community-wide
Northfield	10% in-boundary renewable electricity
Red Wing	100% solar for city operations by 2020, 100% by 2040 community-wide
Saint Louis Park	100% by 2030, 10% in-boundary
Saint Paul	10% in-boundary
St. Cloud	80% by 2018
Wisconsin	
Eau Claire	100% by 2050
La Crosse	25% by 2025
Colorado	
Boulder	100% by 2030
Denver	100% by 2030
Fort Collins	20% by 2020
Lafayette	100% by 2030
Lakewood	45% by 2025
Longmont	100% by 2030
Nederland	100% by 2020 for municipal facilities
	100% by 2025 community-wide
Garfield County	35% by 2020
Pueblo County	100% county-wide by 2035
Summit County	100% community-wide by 2035

# Northfield Climate Action Plan

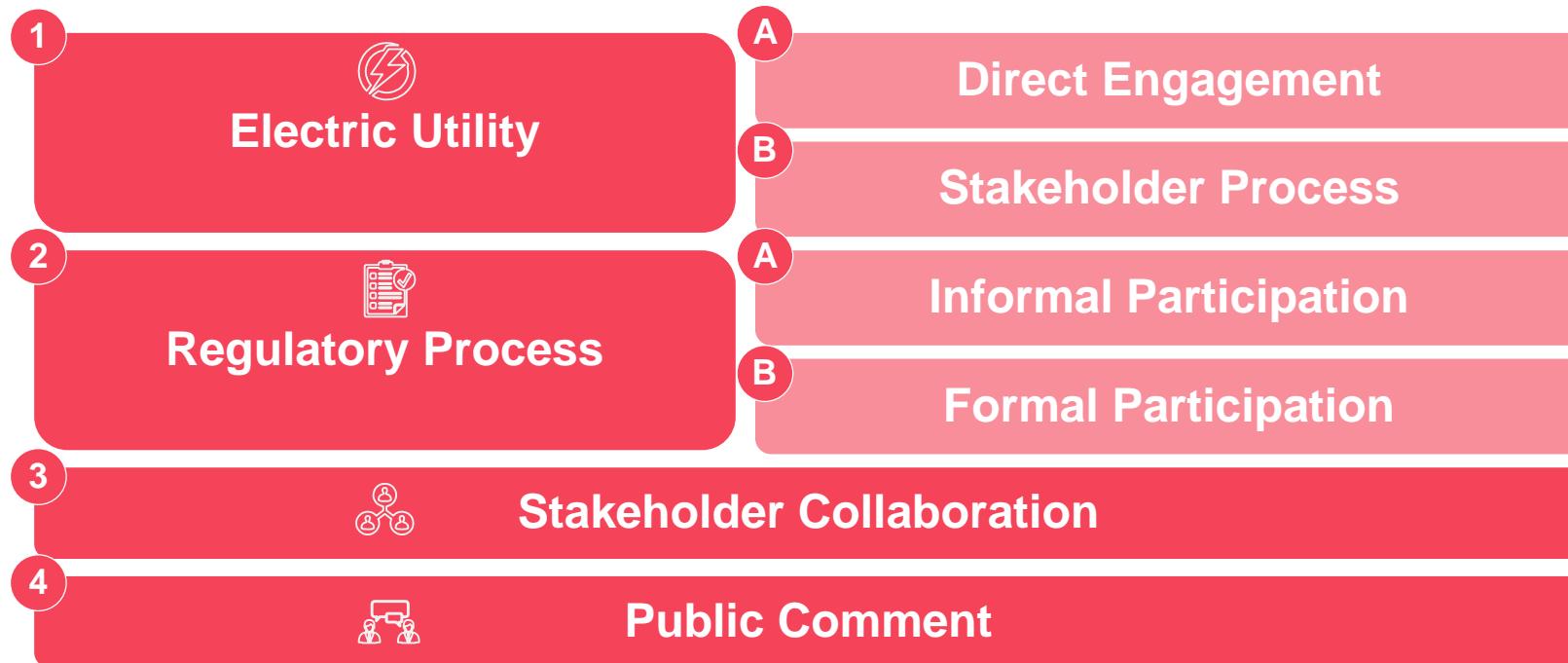


- Carbon neutral by 2040, **100% carbon-free electricity by 2030**
- 28% of vehicles electrified by 2030
- **15% of commercial and residential space and water heating electrified**
- Equity and resilience considerations



- **75% carbon-free electricity by 2034**
- 15% EV adoption by 2034
- **Scenarios focused on vehicle electrification, not buildings**
- Achieving an equitable transition to the clean energy future

# Local Government Regulatory Engagement Pathways



Source: World Resources Institute – Integrated Resource Plan 101 workshop, August 28, 2020

# Minnesota: Better Buildings

- In Minnesota, cities do not have the authority to require building energy standards above state code
- The current building energy code cycle is not on a trajectory to meet state or local greenhouse gas reduction goals
- Efficient buildings create more local jobs, save money on energy bills, and reduce air pollution

# Minnesota: Better Buildings

- The Department of Labor and Industry and the Department of Commerce support an advanced and accelerated building energy code
- Legislation is being introduced to advance and accelerate the building energy code
- Cities across the state are joining together to offer support for this legislation by signing a join letter, passing a resolution, or submitting their own letters

# Lead Collaborators



Center for Energy and Environment

