Agenda

• Xcel Energy Overview

• Carbon Reduction

• Multistate wind strategy and benefits

• Wind in Colorado
About Xcel Energy

- Delivers electric, natural gas to eight states
- Nation’s No. 1 utility wind energy provider
- No. 4 nationally for delivering renewable energy
- 2016 Climate Leadership Award for Excellence in Greenhouse Gas Management
- Ranked No. 4 among gas and electric utilities for the Fortune magazine World’s Most Admired Company list.
- One of the most valuable employers for military veterans
Commitment to Carbon Emissions Reduction

Xcel Energy’s Clean Energy Strategy is Driving Reductions in Carbon Emissions

- **30% Emissions Reduction** = **27 Million Tons per Year** = **Taking Five Million Cars off the Road**

![Graph showing reduction in carbon emissions from 2005 to 2021](Image)
Multistate Wind Investment

- Proposed 11 wind farms in seven states
- Would add nearly 3,400 megawatts of new wind on our system by 2020
- Combination of owned wind farms and power purchase agreements
- By 2021 we expect wind to account for almost 35 percent of our energy mix
Economic and Environmental Benefits

• Customers will see a savings of billions of dollars over the life of the wind farms if implemented.

• Xcel Energy service territory is projected to generate nearly $400 million in property taxes over the life of projects.

• More than 2,000 construction and full-time jobs will be created in communities that are served.
Investing in Economically Viable Energy Mix

• Capitalizes on our most abundant natural resources

• Integrates wind and solar to save on fossil fuel costs

• Incorporates technology to reduce emissions

• Increases efficiency in our fossil fuel generation fleet
Invest in Renewables
Advantaged Geography

Wind Resource
Annual Average Wind Speed*

Wind Speed (m/s)

>10.5  <4.0

Source: NREL (with modifications)
*At 100 meters
Invest in Renewables

Wind Ownership Plans

600 MW
$1.1 Billion
*Rush Creek, Co*
• Approved by CPUC
• Construction has started
• In service 2018

750 MW
*Upper Midwest*
• Filing made 2016
• Decision mid-2017
• In service by 2020
• Three sites in Minnesota, one in North Dakota

$1.5 Billion
• Undisclosed projects
• Potential location across jurisdictions

Potential investment of $3.5 billion for 2017-2021
Upper Midwest Investment

**Minnesota**
- **Blazing Star 1**
  - 200 MW
  - Lincoln County
- **Blazing Star 2**
  - 200 MW
  - Lincoln County
- **Freeborn Wind Energy**
  - 200 MW
  - Freeborn County
  - Worth County**
**- Iowa
- **Lake Benton Wind Project**
  - 100 MW
  - Pipestone County

**North Dakota**
- **Foxtail Wind**
  - 150 MW
  - Dickey County
- **Clean Energy 1**
  - 100 MW
  - Morton and Mercer Counties

**South Dakota**
- **Crowned Ridge Wind**
  - 600 MW
  - Codington, Deuel, and Grant Counties

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[Map of Upper Midwest Investment showing locations of projects in Minnesota, North Dakota, and South Dakota]
Southwest Investment
Colorado Investment

Xcel Energy | Colorado Wind Resources

Map showing various wind projects in Colorado with capacities and locations marked on a map of the state.
About Rush Creek

- Designed, constructed locally
- Partners:
  - Vestas
  - Invenergy
- Paves way for more renewables
- Keeps existing farm land
- PUC + county approved
- Lowest cost wind in Colorado projects
- Timing
  - Construction 2017
  - Completion 2018

Largest wind project in the state
Two wind farms will supply 600 megawatts of clean, renewable energy to customers

That's enough to power approximately 325,000 homes
Boon For State’s Economy

$180 million in landowner lease payments and property taxes
Will benefit landowners in five counties:
Arapahoe, Cheyenne, Elbert, Kit Carson, and Lincoln