Minnesota Power Overview

MN DEED Energy Transition Office and Task Force Meeting
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FORWARD LOOKING STATEMENT

Any statement contained in this presentation and statements that ALLETE, Inc. representatives may make 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, Inc. with the Securities and Exchange Commission. Date 1.12.2021
MP at a Glance!

Generation Supply

- Oliver County I
- Oliver County II
- Bison 1
- Bison 2
- Bison 3
- Bison 4 (Total 500 MW)
- Square Butte (Total 455 MW, MP share 100 MW, Phasing out by 2026)
- DC Line +/- 250 kV
- Taconite Ridge 25 MW
- Solar (Proposed) Total 20 MW
- Manitoba Hydro Power Purchase 250 MW
- Laskin Energy Center Units 1 & 2 48 MW
- Taconite Harbor Units 1 & 2 (Retire by 2021) 150 MW
- Boswell Energy Center Unit 3 (Retire by 2030) Unit 4 (Cease coal by 2035)
- Hibbard Energy Center Units 3 & 4 Co-Gen 48 MW
- NTEC (In service 2025) Total 525 MW MP Owned 250 MW
- Wing River CBED Wind 2.5 MW
- Hydro Operations 115 MW
- Camp Ripley Solar 10 MW
- Nobles II Power Purchase 250 MW
- ATC 345 kV
100% CARBON-FREE ENERGY BY 2050

Our commitment to climate, customers and communities
Yesterday
Nine coal units
95% of energy from carbon sources

Today
First Minnesota utility to deliver 50% of energy from renewable sources
7 of 9 coal units closed or transitioned
50% reduction in carbon
Achieving state standards a decade early

Tomorrow
100% carbon-free energy by 2050
We are committed to making a sustainable transition to a **reliable, affordable** and **carbon-free** energy mix for our customers.

*From 2005 levels*
Expectations are high for tackling climate change.

Minnesota Power’s responsibilities

- Use our expertise to find a sustainable path to carbon-free energy that meets customer expectation for safety, reliability and cost.
- Engaged stakeholders in a 12-month process that tested our assumptions and added knowledge to inform strategies.
- Announced our vision and the next steps in our plan as part of our Integrated Resource Plan in February 2021, inviting broad public and regulator input.
BLUEPRINT TO BUILD OUR CARBON-FREE ENERGY FUTURE

Expand renewable sources of energy—Add an estimated 400 MWs of wind and solar

Achieve coal-free energy supply
- **2030** Retire Boswell Energy Center Unit 3
- **2035** Coal-free energy supply at MP Boswell Energy Center Unit 4
BLUEPRINT TO BUILD OUR CARBON-FREE ENERGY FUTURE

CONTINUED

- Strengthen the electric grid
- Adopt innovative solutions
- Engage with stakeholders
- Collaborate with State of Minnesota and others to develop a sustainable transition plan for host communities
WHAT WILL A SUSTAINABLE ENERGY FUTURE LOOK LIKE?

100% Carbon-free energy
Safe and reliable
Affordable
Resilient
Technologically flexible
Equitable results among all customer classes
Just transition for our employees and community partners
A sustainable plan

1. Ensure reliability
2. Manage costs for customers
3. Time for just transition for host communities and employees
4. Allows time for technology to develop and advance

We have exceeded state clean energy goals without risking safety, reliability and affordability—and we will continue to do so.
We have a **bold vision** to deliver 100% carbon-free energy as part of **EnergyForward**

We will **listen carefully** to our stakeholders so we can continue to improve our plan

We will **provide tools and support** to help customers adapt to climate change

We will **prioritize our customers, communities and employees** as we implement this plan
Appendix
Boswell Energy Center Stats

- **MP’s Largest Generating Site**
  - 4 Generating Units (937 MW)
    - BEC 1-2 (67 MW’s each) **1958 & 1960, Retired in Dec 2018**
    - BEC 3 (352 MW’s) **1973**
    - BEC 4 (585 MW’s) **1980**
      - **20% Ownership WPPI**
- Recently completed environmental projects:
  - BEC 12, and 4 Low Nox (2008) ~$80M
  - Boswell Turbine Upgrades (+60 MW) ~$50M
  - BEC 3 Env Retrofit (2007-2009) ~$240M
  - BEC 4 Env Retrofit (2013 – 2015) ~$300M
- **Industrial Corridor**
  - Itasca Greenhouse, MDI, Lonza, Nelson Shims, Huber Engineered Woods (under development)
- **165 Employees**
  - Operations, mechanical and electrical maintenance, engineers, accounting, environmental compliance, administration
  - Participation on local boards, non-profit groups, and community involvement
  - Yellow Ribbon Committee Members (~20 Veterans)
  - United Way Giving
- **Economic Impact (2019 data)**
  - $18M Annual Payroll
  - $4M ($41.1MTotal Levy) Itasca County Taxes
  - $1.6M ($2.95M Total Levy) Cohasset Taxes
  - $1.6M($14.4M Total Levy) ISD 318 Taxes
  - $2.1M Fiscal Disparity
  - $0.7M State of MN taxes
Reliability Requires Thoughtful and Intentional Planning

- Grid is built around major generation sources
- Long lead time projects
- Need incorporation into broader regional plan
Polar Vortex Demonstrated Need for Reliability

Power Supply Performance During 2019 Polar Vortex

More extreme weather events + intermittent renewables = grid reliability more important than ever