46th Annual Rural Energy Conference
February 28-29th, 2008
LaCrosse, WI

Meeting Renewable Energy Portfolio Goals
Minnesota Power's Perspective

About Minnesota Power

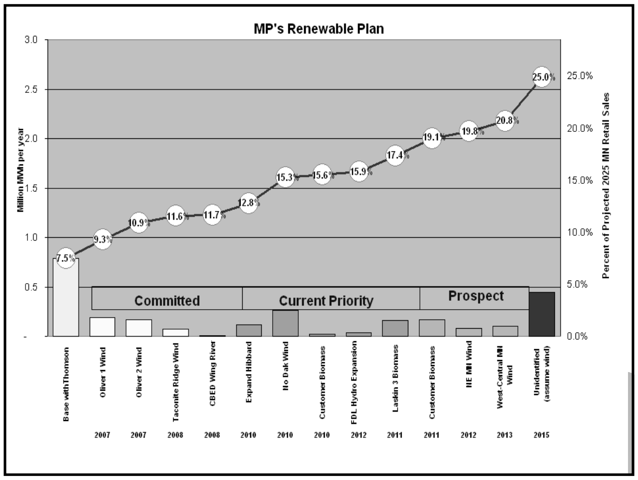
- 100 year old electric utility incorporated in 1906 based in Duluth, MN
- Serves about 141, 000 retail electric customers and 16 municipal systems across a 26,000 square mile portion of central and northeastern Minnesota.
- Average retail rate of 4.75 cents/kWh ranks seventh lowest among 177 US investor-owned utilities.
- MP's 12 largest (industrial) customers consume over 50% of electricity sold to retail customers.
- In 2005 (pre-wind) MP's electricity was generated 90% from coal-fired units; 7% from hydro and 3% from biomass generation units.
- MP has largest hydro (~115 MW) and biomass (~107 MW) resource in MN.

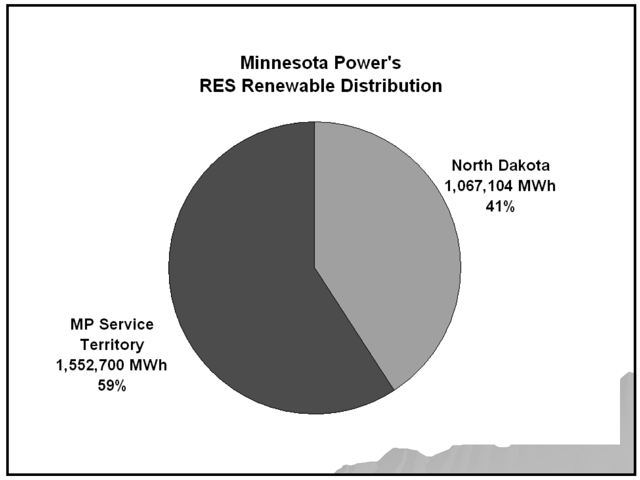
MN Renewable Energy Standard

- 25% of retail energy from renewable generation resources by 2025
- Solar, biomass, wind and hydro < 100MW
- Renewable portion of retail energy supply
  - REO: at least 1% in 2005 and 7% by 2010
  - RES: 12% by 2012; 17% by 2016; 20% by 2020; and 25% by 2025.
  - Xcel only: 15%/2010; 18%/2012; 25%/2016; 30%/2025 (at least 25% of this from wind)
- Resource Plans must address REO/RES plans and activities to meet REO goal and RES requirement.

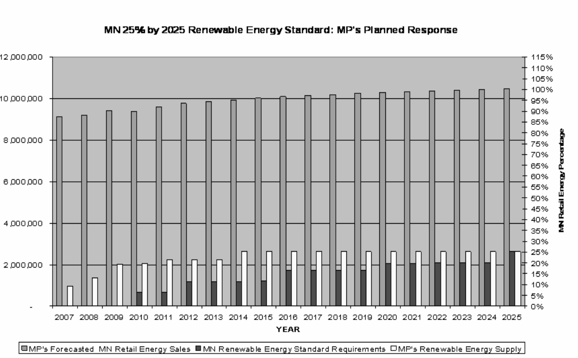
What Does This Mean for MP?

- 25% of MP's 2025 Forecast MN Retail Energy Demand
  - About 2.7 million MWh
- Halfway there
  - At about 12% in 2008
- The GAP
  - About 1.3 million MWh

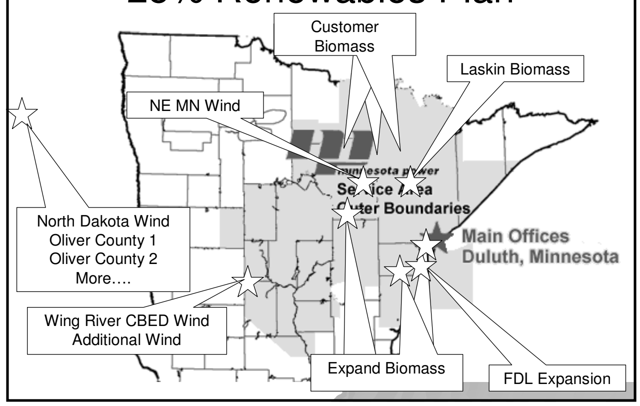




Minnesota Power Meets (Exceeds) MN RES



25% Renewables Plan



Minnesota Power's Wind Journey So Far

- North Dakota (25 year PPA with FPLE)
  - Oliver I (12/06) 50.6 MW (22, 2.3 MW Siemens Bonus Turbines
  - Oliver II (12/07) 48 MW (32, 1.5 MW GE turbines)
- NE MN Project
  - Taconite Ridge (7/08) 25 MW (10, 2.5 MW Clipper turbines; MP build, own and operate
- West Central MN
  - Wing River CBED (7/07) 2.5 MW (2.5 MW Nordex turbine)

Renewable Addition Acquisition Options

- Power Purchase Agreement
- Turn-key and rate base
- Self-build and ratebase
- Community-based Energy Development (C-BED)

Transmission Issues/Bottlenecks

- Problem
  - MISO queue process congested
  - Project status ranges from idea to significantly developed
  - Delays system and facility studies jeopardizing developing/mature projects
- Mitigation Effort
  - Interconnection Process Task Force
    - Utilities involved, MP etal.)
    - MISO to submit recommendations to FERC 2nd quarter 2008.
  - Cost of "phantom" projects will become more painful…without site control or turbine supply

Key Drivers for Renewables

- Renewable Energy Standard (mandate)
- Federal Production Tax Credit
- C-BED Promotion
- Carbon policy
- Minnesota Power's environmental and renewable goals

Next Speaker or Q&A?

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