Montana Environmental Information Center

The Quarantine Series
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Montana Renewable Energy 201:
A Deeper Dive
2 Topics

- Montana Wind Competitive Advantage

- Transmission is Key to Reaching Clean Energy Future
  - The Evolving Western U.S. Transmission Grid
Montana Wind
Competitive Advantage
Montana Has #2 Wind Energy Potential in USA
U.S. Grid Means Montana Will Export to West and South
MT’s Current Energy Customers Want Clean Energy

**Washington**
- No coal by 2025
- 100% clean energy by 2045

**Oregon**
- No coal by 2030
- 50% clean energy by 2040

**Idaho**
- Idaho Power & Avista Corp
- 100% clean energy by 2045

“*The customer is always right!*”
Montana Wind
Competitive Advantages

• Has great production overall, means lower cost

• Oregon and Washington’s peak energy demand = winter

• MT wind has strong winter production - better than WA and OR
  o Creates value for MT wind

• Geographic diversity is valuable
  o Want facilities spread out
Geographic Diversity is Valuable

Getting wind from 1 location not as good as...

Getting wind from MANY locations
Montana Wind Energy is Low Cost

*Prices for out-of-state utilities may vary*

Source: Montana Consumer Counsel (2017)
What Other Utilities Say About Montana Wind
“Montana presents a potentially appealing location for siting wind generating facilities. Its high average wind speeds suggest generating facilities could have attractive capacity factors [i.e. year round production]. Further, its geographic diversity relative to the current PGE wind portfolio and the seasonal timing of the generation [i.e. winter production] could provide increased capacity contribution benefits compared to other locations.”

-PGE 2019 IRP, Page 147
2020 Resource Plan

“The 200 MW Montana wind resource would serve customers by adding potentially low cost clean energy as a contribution to meeting peak winter loads.”

“A combination of Montana wind and storage resources meet the 2026 capacity deficits associated with the shutdown of Colstrip...”
Puget Sound Energy

Request for Proposals (RFP) underway

Press Reports:

• 3 MT wind projects on short-list
• All 200-400 Megawatts
• One on Northern Cheyenne tribal land
Transmission is Key to Reaching Clean Energy Future
2 Transmission Developments

1. Making efficient use of existing transmission lines

2. Western U.S. grid evolving to enable renewables, save people $
• Building new transmission lines can be challenging, takes time

• Maximizing existing lines helps with near-term development

• Colstrip transmission line can move renewables
Preparing Colstrip Transmission Line for Renewables

- 2018: Prompted by MEIC and others...

- Gov. Bullock and Bonneville Power Administration led regional process to look at Colstrip line, remove barriers to MT clean energy exports
  - Result: Montana Renewables Development Action Plan
  - Very successful!
Hundreds of megawatts of transmission line capacity opened up just by having utilities talk to each other.
“The process found that the existing transfer capability of the Colstrip Transmission System can, with relatively minor investments (compared to new line builds), support a one-for-one replacement of Colstrip generation with new resources, including [renewables].”

-MRDAP, pg 11

NorthWestern Energy signed off on this!
Western U.S. grid evolving to reach clean energy future, save people money
100% Goals Across West

100% Clean, Renewable, or Carbon-Free Energy (State Law or Goal of Largest Utility)

- 100% by 2045 state law
- 100% by 2045, Idaho Power
- 100% by 2045 state law
- 100% by 2050 goal passed by legislature
- 100% by 2050, Xcel Energy
- 100% by 2045 state law
- 100% by 2050, Arizona Public Service
Energy Imbalance Market (EIM)

- Sharing small amounts of energy across west
- Participating utilities saved $919 million since 2014
- Even NorthWestern joining (2021)
Next Steps

• Fully integrated western energy market
• Reach clean energy future, save $
At least for electricity transmission 😊
Questions & Answers

Using the “Chat” function, please type in your question or email me at bfadie@meic.org

For More Information or to Join MEIC go to: MEIC.org

Join us Thursday, May 14 @ 4 pm

“The Hazards of Oil and Gas Development in Montana and What MEIC is Doing About It”