

OTP/MDU Witness

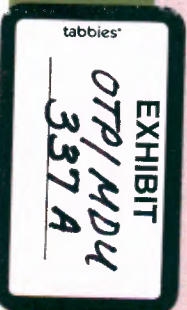
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Principal

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Summary

OTP/MDU Exhibit 337-340



Thomas A Hewson Jr.

- 30 years in energy and environmental consulting
- Principal at Energy Ventures Analysis Inc since 1981
 - Directs environmental practice
 - Responsible for environmental emission forecasts and industry compliance studies
 - Performs integrated electricity modeling
- Project Manager at Energy and Environmental Analysis (1976-1981)

Scope of Work

- Evaluate testimony of DRC witness David Schlissel regarding risk to new coal plant projects
 - Carbon regulation risk
 - Recent coal plant construction delays/cancellations
- Evaluate Schlissel testimony regarding wind energy costs
 - And his outlook regarding extension of the wind energy Production Tax Credit.

Future Carbon Regulation Risk

- ND Statute prohibits consideration of carbon costs in resource analyses,
 - Although the Co-Owners have considered carbon costs in their other jurisdictions.
- Carbon compliance costs would be highly dependent upon type, severity and timing of carbon regulation adopted
- Conclusions:
 - Carbon regulation is not likely to change the Applicants' selection of Big Stone II as a least cost resource for their plans.
 - Schissel testimony overstates the potential impact of carbon regulation on Big Stone II
 - Because new units like Big Stone II will likely be eligible for significant quantities of free and no-cost carbon allowances.

Wind Power Risks

- Like other generation projects, wind projects also entail significant risks
 - Capital cost risk
 - Performance risk
 - Expiration of government subsidies risk
 - Example: Current Production Tax Credit (PTC)
- Increased regional dependence on wind energy will increase dependence on natural gas
 - And associated natural gas price risk

New Coal-Fired Power Plant Construction

- Although some coal plants have recently been delayed or cancelled, many are still proceeding.
 - There are more active coal projects than cancellations
- U.S. Department of Energy “Annual Energy Outlook-2008” forecasts new U.S. projects through 2030:
 - 91,200 MW coal
 - 33,400 MW natural gas
 - 16,600 MW nuclear
 - 11,700 MW biomass
- Other, non-coal generations projects are also subject to delays and cancellations

Wind Production Tax Credit (PTC)

- Important element in wind resource cost
- Schlissel suggests the PTC will be available forever
- PTC history – short extensions, several expirations
- Will Congress see need to continue?
 - Need for financial incentives in light of increasing number of state renewable energy standards.
 - PTC cost to US taxpayer increases as wind becomes more competitive
- Even if extended in 2008, may not be available long-term