

# OTP/MDU Witness

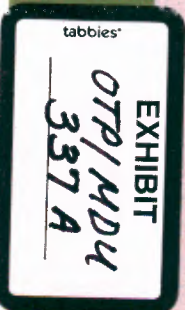
Thomas A. Hewson, Jr.

Principal

Energy Ventures Analysis

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