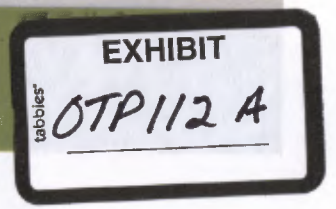
Otter Tail Power Witness
Ward Uggerud

Senior Vice President
Otter Tail Power Company

Summary
OTP Exhibits 112 - 116 & 119 -121



Renewables & Conservation

- Otter Tail and the other Co-Owners are planning nation-leading amounts of renewables and energy conservation
  - Assuming the new Minnesota Renewable Energy Standard (RES) and 1.5%/year conservation goal in our planning.
    - Regardless of their current uncertainties or legislative off-ramps
  - Assuming additional renewables and conservation in North Dakota and South Dakota as well.
- Even with these planning assumptions, Big Stone II is still needed.

Carbon

- Big Stone II is still needed when assuming reasonable ranges of future carbon costs
  - $9/ton assumed in our analyses, assuming it would be applied to *all* tons of carbon
    - The equivalent allowance price per ton is *higher* if applied in a cap-and-trade approach. (Hewson)
    - Joint Intervenor witness is erroneously comparing apples-to-oranges in this regard. (Hewson)
  - Applicants' equivalent value for cap-and-trade is allowance price of:
    - $18 to $22/ton in our resource modeling. (Hewson)
    - $8 to $60/ton in our levelized cost analysis. (Greig)
    - These values *are within or exceed* the $4 to $30/ton cap-and-trade allowance range recently adopted by the MPUC.

Alternatives

- Beyond our aggressive assumptions for renewables and conservation, there isn't a viable alternative to offset Big Stone II
  - New nuclear plants are prohibited by Minnesota law.
  - Utility-scale biomass plants would require us to sacrifice our existing forests.
  - The only remaining alternative is large quantities of additional natural gas consumption.
- DRC is reluctant to acknowledge it, but *natural gas* is the main alternative they are actually advocating.
  - Natural gas alone, or a wind/gas combination, costs more than Big Stone II, even with reasonable carbon costs included. (Greig)

Natural Gas

- Region is already increasing its natural gas consumption at a dramatic rate.
  - Proposed new electric generation plants alone will increase consumption equivalent to 40% more MN residential natural gas customers (Klein)
- Natural gas prices are already high and volatile, and will become more so. (Klein)
  - U.S. and Canadian natural gas production already flat or falling.
  - Future sources are nations like Russia, Iran and Venezuela.
  - Carbon regulation will further accelerate gas prices and volatility.
- "Using natural gas to generate baseload electricity is like washing your dishes in fine Scotch."*
  - ND consumers already on the hook for natural gas for their home heating. (Klein)

* US DOE Secretary Samuel Bodman, "Ask the White House" website at: http://www.whitehouse.gov/ask/20060512.html.

Baseload Need Summary

- Co-owners' analyses show a total baseload need for Big Stone II in 2013 of 516 to 556 MW.
  - Including Otter Tail's total baseload need of 170 MW.
- We propose to build a 500 MW plant.
  - With Otter Tail taking a 120 to 133 MW share.
- We will build a 580 MW plant if we add new participants

Status of New Participants

- Several new entities have approached us with interest in participating in the BSPII project.
  - Their total interest in Big Stone II participation is larger than the Co-Owners needs alone.
- We continue to perform due-diligence on these new participant candidates.
  - Adding another participant will further improve the cost-effectiveness of the project for our customers.
- If we decide to add another participant, we will do so in compliance with all applicable laws.

Responses to NDPSC Staff/Deason

- Applicants' witnesses provide additional information to address Mr. Deason's questions in their rebuttal testimonies
  - Witnesses Rolfes, Morlock and Greig
- Otter Tail continues to agree with the five conditions for Commission approval recommended by Mr. Deason.
- Applicants will monitor CO2 developments and confirm cost-effectiveness prior to construction

Responses to DRC/Schlissel

- Impending regional capacity deficits should be of great concern to the Commission
  - BSPII needed to supply reliable capacity, and:
  - To address underlying drying-up of low-cost energy sources the capacity deficits symbolize.
  - Region's energy prices continue to move toward natural gas over time unless new baseload capacity is added.
- Big Stone II is still cost-effective, even when reasonable estimates of future carbon regulation are taken into account.