BIG STONE II
PARTNERS IN GENERATION

OTP Witness
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Summary
OTP Exhibits 117, 118 & 122

Revised Resource Planning Analysis

- Updated Analysis
  - BSPII project participants
  - BSPII plant size options, costs and in-service date
  - Increased renewables and energy conservation
  - Customer load and fuel cost forecasts
  - Updated costs for all alternatives
- Optimized Otter Tail plan determined as before, using IRP-Manager resource planning model
  - Combined with management experience and judgment

Responses to DRC/Schlissel

- IRP-Manager is a powerful and credible resource planning model
  - Primary shortcoming is relative ease of use, compared to more recent software products.
  - IRP-Manager has capabilities not present in other models
  - Primary determinant is skill and experience of the modeler running the software.
- Resource modeling and levelized busbar cost analyses are both useful tools in providing information on resource acquisitions.

Responses to DRC/Schlissel (continued)

- Conservative assumptions were used that favored alternatives to Big Stone II.
- Sensitivity analyses were performed.
  - Capital costs
  - Fuel prices
  - Carbon in MN dockets
- Conclusion:
  - Over time the varying assumptions have changed other resources in plan somewhat, but BSPII has been a component of every integrated resource plan result.

Responses to NDPSC Staff/Deason

- Wind Production Tax Credit (PTC) assumed to be renewed in 2008, but new facility eligibility expires five years later (after 2013)
- Capital cost assumptions used by Otter Tail for natural gas-fired combined cycle units are similar to those used by Montana-Dakota
- Otter Tail's analysis includes consideration of Allowance for Funds Used During Construction (AFUDC)
  - Calculated internal to the IRP-Manager model.

Revised Resource Planning Analysis (continued)

- Conclusions
  - Otter Tail has a baseload need of up to 170 MW, in combination with renewables, conservation and other resources.
    - Compliance with MN RES, ND REO, and SD REO
    - Compliance with MN conservation requirement plus conservation impacts in ND and SD
  - Total baseload need of all five BSPII Co-Owners is 516 to 556 MW.
    - Regardless of whether BSPII plant size is 500 MW or 580 MW.