BLACK HILLS POWER, INC.
d/b/a BLACK HILLS ENERGY
SD PUC DOCKET: EL16-042

REQUEST DATE : 1/27/17

RESPONSE DATE : 2/10/17

REQUESTING PARTY: Staff

SDPUC Request No. 3-5:

Refer to BHP's response to DR 1-7. BHP states it will have sufficient capacity resources to serve customer electricity demand, *including a 15 percent reserve margin*, over the ten-year planning period 2017 through 2026, yet it appears the 15 percent reserve margin will not be met during several of the years. Please explain.

Response to SDPUC Request No. 3-5:

The load and resource balance provide in the Company's response to DR 1-7 includes the peak demand forecast and resource capacities based on peak demand and summer ratings corresponding to the peak day of each year. To meet the planning reserve shortfall during peak demand hours in the summer months, when the Company's peak demand typically occurs, the Company assumed that it will be able to purchase up to 50 MW of seasonal firm energy in June, July and August. The remaining capacity shortfalls shown on the annual load and resource balance are capacity shortfalls that are forecasted to occur in a few hours of the peak month. For these few hours of capacity shortfalls the Company relies upon day-ahead capacity purchases. The Company's analysis to determine the number of hours per month that a capacity shortfall may occur included 1) completing a monthly load and resource balance to determine the months with a forecasted capacity shortfall and 2) estimating the number of capacity shortfall hours in each of these months using production cost modeling software. From 2017 through 2021 the capacity deficit does extend into multiple months beyond the summer months and is higher than the 50 MW seasonal firm capacity purchase assumption in the peak month. However, this is due to contracts that Black Hills executed to cover a margin guarantee requirement stipulated in Docket No. EL12-062 which terminates on December 31, 2021. From 2022 through 2026 there is no capacity shortfall or the forecasted capacity shortfall is limited to a few hours in the peak month. These measures, purchasing seasonal firm energy and day-ahead capacity, allows the Company to defer the need to install new resources until the need for capacity, driven by load growth, extends to multiple months. In addition, by leaving some need to day-ahead short term capacity purchases, Black Hills has an opportunity to update weather forecasts and limit over-buying long-term capacity.

Attachments:

None