Docket No. 10-035-89

Office of Consumer Services Witness: Randall J. Falkenberg

Exhibit OCS 2.2 to the Direct Testimony of Randall J. Falkenberg

October 26, 2010

Rocky Mountain Power Responses to Data Requests
in Order of Reference in Direct Testimony.

Data Request OCS 2.4
Data Request OCS 2.5
Data Request OCS 6.7
Data Request OCS 6.5
Data Request OCS 2.1
Data Request OCS 2.2
Data Request OCS 6.2
Data Request OCS 6.3

OCS Data Request 2.4

Does the Company agree that in the screens used in the "Commission Ordered" NPC, the Company did not use the same methodology (i.e. the OCS spreadsheets) that were used by the OCS and approved by the Commission in the prior GRC?

Response to OCS Data Request 2.4

The Company applied daily screens as ordered by the Commission. While the Commission adopted an amount proposed by OCS, it did not explicitly adopt OCS's spreadsheets.

OCS Data Request 2.5

Does the Company expect that the Populus to Ben Lomond link will reduce losses? If so, please quantify the amount of annual energy loss savings expected. Please provide supporting details.

Response to OCS Data Request 2.5

Yes. New transmission capacity will reduce system losses as it also reduces path impedance. Losses are calculated on an annual system basis using averages for loads, generation, and system wheeling values. A new system loss study will be completed later this year. At this time definitive information as requested is not available.

OCS Data Request 6.7

Please provide a formula (such as $P_{loss} = P^2R/V^2$) that would apply to the current lines used for the Populus to Ben Lomond links vs. the new line. Explain why this formula could not be used to compute loss savings from the new line. If such a formula could be used, please provide the calculation of loss savings from the new line.

Response to OCS Data Request 6.7

The formula above is correct for calculation of a discrete line loss value for a specific line or sets of lines carrying a fixed power flow. It does not however provide a value of "line loss" savings. It can be used to compare one discrete line loss value to another when calculated for different power flows. This calculation was performed in the Company's Response to OCS Data Request 6.5 for a one hour period.

OCS Data Request 6.5

Please refer to the answers to OCS 2.5. This answer is not responsive. A request was made for quantification of the expected savings in losses attributable to the Populus to Ben Lomond link. Please provide the Company's best estimate of the benefit in terms of loss reductions, attributable to the new line.

Response to OCS Data Request 6.5

Losses are measured based upon actual hourly power flows across the entire PacifiCorp network over time. Generation, loads, and actual line path flows vary hourly through time as generation and load pattern conditions change. System losses are also affected by the electrical reconfiguration of the system necessary to interconnect Populus, Ben Lomond and Terminal substations to all the new and existing 345 kV lines. The time period under which losses are incurred may vary as well; from one hour to one year, to 30 or more years.

The Company has created an estimate of loss reduction based upon the following assumptions. A power flow simulation was performed for year 2010 heavy summer load configuration without the Populus to Ben Lomond project. A one hour power flow simulation was conducted for a simulated power transfer of 700 MW across path C in the North to South direction. The load and system losses for the portion of the system between Populus and Terminal substations were calculated for that single hour resulting in Load + System Losses = 1300.7 MW.

A second power flow simulation was conducted using the same year 2010 configuration and assumptions using the same power flow model with the Populus to Ben Lomond project now included. The load and system losses for the portion of the system between Populus and Terminal were calculated for that hour resulting in Load + System Losses= 1289.9 MW. The loads in the models were held constant.

The difference between the two study results 1300.7 MW – 1289.9 MW = 10.8 MW which is the resulting system loss reduction in this part of the system for that hour.

The actual system operation and transmission line loading will vary significantly over the life of the project and power flows will be higher and lower than the 700 MW in any particular hour and over a wide range of load and generation dispatch scenarios.

To review the Path C one-line diagrams, please refer to Attachment OCS 6.5.

OCS Data Request 2.1

In the GRID runs provided with the filing, it appears that in the case where the Populus to Ben Lomond line is added, the Company has removed the Idaho to Path C STF link. Please explain why.

Response to OCS Data Request 2.1

The Company modeled three parallel links along the path: long term firm, STF based on the experience of historical day-ahead STF transactions, and STF based on the 48-month historical averages. The addition of the Populus to Ben Lomond line eliminates the need for other transmission between the Idaho and Utah North GRID bubbles. In this filing, the Company only removed the STF link based on the historical day-ahead STF transactions, but should also have removed the STF based on the 48-month historical averages.

OCS Data Request 2.2

Assuming that the link discussed above, was removed because it is no longer needed, or the Company does not expect to enter into that same STF contract, please explain why the cost of that link shown in MDR 2.77 from the prior general rate case was not removed from the transmission wheeling expense modeled in GRID. If the Company believes the cost should be removed, please identify the amount that should be removed from the GRID study.

Response to OCS Data Request 2.2

The vast majority of the $951,646 expenses listed in MDR 2.77 as "IDAHO STF TRANS CHG" are not related to the GRID transmission link "Idaho -> Path C STF," but rather, are related to a long term firm incremental amount of 61MW on the path named "IPC transmission --> Path C (S) cut plane." The expenses included for this incremental transmission is $887,556, as shown in Confidential Attachment OCS 2.2. This information is confidential and is provided subject to the terms and conditions of the protective agreement in this proceeding. Please refer to Confidential Attachment OCS 6.6 -2 in Docket No. 09-035-23 for support for the 61MW incremental transmission.

The remaining expenses of $64,090 cannot be specifically tied to the path that has been removed. The 48 month average STF transmission capacity purchased from the Idaho Power Company on this and other paths continues to be included in GRID. Please refer to Confidential Attachment OCS 6.6 -3 in Docket No. 09-035-23 for more details, which show that in 2008, the expenses paid to Idaho Power Company were approximately $62,000. Please also refer to the Company's response to OCS 2.1 for more explanation.

The wheeling expense in question was listed as "STF" because the contract for the 61MW incremental transmission was only in effect for a short period of time during the base historical period of the case. The Company inadvertently missed annualizing the expense when modeling the transmission capability for the entire test period.

OCS Data Request 6.2

Please refer to the answers to OCS 2.2. Does the Company agree that owing to the completion of the Populus to Ben Lomond link, it will no longer need the 61 MW contract? Please provide the termination date for the contract. Please fully explain your answer.

Response to OCS Data Request 6.2

No. The Company will evaluate its need of long term wheeling rights based on obligation to serve load and the FERC requirement not to use allocated network transmission for wholesale transactions. Please refer to the confidential attachment provided in the Company's response to OCS 6.1, for information regarding the contract.

OCS Data Request 6.3

Please refer to the answers to OCS 2.2. If the Populus to Ben Lomond line were delayed for two years, is it likely that the Company would continue to purchase capacity from the market, if it were possible to extend both the STF contracts and the 61 MW contract?

Response to OCS Data Request 6.3

Yes.