

## **Reconfiguration and Increased Transmission Utilization PowerWorld Alternative Analysis**

The PowerWorld alternative analysis was performed to estimate the value of the RCS for the 4 CCA scenario using a more theoretical method. The basic assumption used in this analysis is that a robust RCS will allow holders of transmission rights to trade rights that they might otherwise not use. For example, if robust real-time reserve markets develop as expected, a transmission rights holder in Grid West might trade rights they now hold open for possible need to deliver reserves in real-time for a unit contingency (outage). These rights may be held open today as a hedge because the price of the transmission rights that might otherwise be traded are capped at the tariff rate and the cost of reserves could cost much more than the capped price of the transmission capacity. Also, the present OASIS and contract path systems used for trading rights are ineffective for acquiring rights across multiple control areas because of the multiple transactional logistics, and margins required for loopflow. The RCS will be flow based, will be a one-stop shop for the Grid West wide system, and will evaluate the requests on an optimal Injection/Withdrawal basis.

The alternative analysis used PowerWorld to compare base case price spread and production costs across the Grid West wide system under today's scheduling and bilateral trading contract path methods (the individual control area cases in each season), with a change case assuming maximum RCS in the Grid West footprint. In the change case it is assumed that flow-based maximum RCS allows all possible transmission and rights to be traded and used such that the only price spreads that remain after the RCS are those from physical congestion for which there is no re-dispatch option (the 10 CCA case in each season). The difference between the two production costs is the theoretical maximum value of the RCS in the absence of consolidation. Consolidation among the 4 control areas (BPA, PacifiCorp East, PacifiCorp West and Idaho Power Company) captures a significant portion of this value since the control areas assumed to consolidate would see some of this efficiency effect in real-time. However, even the control areas assumed to consolidate would trade and obtain RCS rights to ensure unit commitment changes in pre-schedule on occasion. To account for these effects, the alternative analysis subtracted from the theoretical RCS total, the efficiency value that was determined for the 4 CCA case but added back 5% for RCS trading the consolidating areas would do for unit commitment in preschedule. The result represents the theoretical value of RCS especially for the other parties in Grid West. Because it is understood that this maximum can't be reached because of logistics and granularity, and is only a theoretical bookend, the result was reduced by 75% for this estimate. With the 75% reduction, this approach produced a range of benefits between \$17 million and \$89 million per year for the RCS assuming the 4 CCA. Because of time limitations, this analysis was not performed for the 10 CCA case nor for the Western Interconnection wide area to reflect the value of rights used for "across WECC" transactions.