

Submitted by	Date Submitted
MidAmerican Transmission Darrell Gerrard, dgerrard@midamericantrans.com (503) 813-6994 Pinnacle West Capital Corporation Jason Smith, jason.smith@pinnaclewest.com (602) 250-2668	February 26, 2014

CAISO Management and Staff,

MidAmerican Transmission and Pinnacle West appreciate the opportunity to comment on the CAISO's 2013/2014 Draft Transmission Plan.

We commend the CAISO's work on the 2013/2014 Transmission Plan and all of the Reliability, Economic and Policy driven projects identified. The improvements implemented in this cycle create a robust foundation not only for projects in consideration for approval in the current 2013/2014 planning cycle, but also for future project study work as well. This work was evident in the supporting materials accompanying the project recommendations presented at the February 12, 2014 stakeholder meeting.

In particular, we support the economic analysis specific to the Delaney to Colorado River ("DCR") 500 kV transmission line. The analysis recognizes the significant benefits DCR provides to CAISO customers and represents the first robust economic project evaluation. We commend the CAISO on recommending the DCR project for approval after multiple years of analysis and stakeholder input.

Capacity Benefits

We support and agree with the CAISO recognizing the incremental RA import capacity calculated by PSLF power flow of 400 MW effectuated by the DCR transmission line presented in the November 20-21, 2013 stakeholder meeting. These capacity benefits indicated an overall Benefit to Cost Ratio of 1.3x. We understand the assigned 400 MW capacity benefit is derived using power flow analysis conducted with peak loads and peak transfers into the southern California system consistent with CAISO business practice. Based upon power flow analysis, we believe that the resource adequacy benefits at times exceed 400 MW under many different sets of plausible system loading conditions.

The recent Draft 2013/2014 Transmission Plan included scenarios with 200 MW and 300 MW import capacity attributed to DCR, although we believe the capacity benefits for the project in many hours of the year can be even higher than the 400 MW presented in November 2013. In addition, the draft plan only includes the direct benefits of purchasing lower cost capacity in Arizona, and does not separately account for the indirect benefits of the DCR project creating

additional lower-priced capacity in California due to increased competition between generators for service customer load in the marketplace. Combining the reduced scenarios on import capacity along with the exclusion of indirect benefits could lead to a conservative capacity valuation for the DCR project.

The Benefit to Cost Ratios (B/C) for the project with the lower capacity benefits indicated values greater than 1.0 (1.04 B/C and 1.18 B/C for the 200 MW and 300 MW capacity scenarios respectively) in the stakeholder presentation. These scenarios further indicate the robustness and economic viability of the DCR project.

Production Benefits

The DCR evaluation now fully recognizes the established regulatory framework at the Palo Verde trading hub which allows CAISO market participants to access and utilize transmission through this hub without being assessed a transmission wheeling charge. This unique regulatory structure also allows for CAISO control on interconnected generation to the Palo Verde hub.

Customer Cost

The DCR evaluation is also based on a detailed year-by-year revenue requirement and net present value comparison of project costs and benefits in 2020. This approach allows the CAISO to compare the true net present value cost to customers as well as indicates the unique timeline of benefits the DCR project brings.

Policy Benefits

CAISO has also indicated in the policy driven system assessment at the stakeholder presentation that the DCR project increases the deliverability of Imperial Valley area renewables into LA/San Diego areas from 700 MW or 800 MW (depending on restoration of emergency rating for Sycamore – Suncrest 230 kV) to approximately 1,000 MW (evaluated on a system after the installation of a flow control device at Imperial Valley). While policy attributes do not appear to be needed in light of the compelling economic support for the project, this represents additional support above and beyond the base scenarios evaluated.

Reliability Benefits

CAISO has also shown a clear reliability benefit of the DCR project by partially mitigating the common corridor outage of the Lugo – Mohave and Lugo – Eldorado 500 kV lines.

Conclusion

We agree with the CAISO's overall approach to the economic assessment of the DCR transmission line. This is an economically beneficial project to CAISO customers even under what we understand to be plausible but conservative assumptions. The results shared at the stakeholder meeting are consistent with our own parallel assessment which we independently developed with our economic consultant with significant experience in the California and Western Interconnection markets. The one exception to this is that we believe a 400 MW transfer capacity assumption is appropriate and could yet be even greater during many hours under reasonable system conditions.

While the CAISO's evaluation demonstrates the DCR transmission line will provide economic benefits to CAISO customers considering a conservative capacity benefit, we believe there are other less quantitative factors that could drive even more benefits to CAISO customers that are worth considering. These benefits include the ability to access flexible thermal capacity to follow generation and load fluctuations, the ability to capture indirect capacity benefits created by lowering the proxy market clearing price for generation capacity in the CAISO, the increase in options that could be considered as a part of once-through cooling and the San Onofre Nuclear Generating Station retirement mitigation plans, and the increased deliverability between the CAISO and neighboring regions which could facilitate further inter-regional market development.

In summary, we commend the CAISO for its thoughtful analysis of this transmission line. We concur with the CAISO that the DCR transmission line is an economically justified investment for CAISO customers, and we support the CAISO moving forward with its plan to seek Board approval to competitively bid the project.