



CAISO 2019/20 TPP Study Plan: Stakeholder Comments

Submitted by	Company	Date Submitted
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NextEra Energy Resources (NEER) appreciates the opportunity to provide comments on the CAISO 2019/20 Transmission Planning Process. The comments below reflect NextEra's request submitted on March 14, 2019 per CAISO 2019-20 Transmission Planning Process (TPP) the Red Bluff – Mira Loma 500 kV line proposal as economic transmission project and the acceptance by CAISO in the 2019-20 TPP Study Plan including technical studies discussed during the September 25-26th stakeholder meeting.

Previously Studied Project in the 2018/2019 Study Plan

NEER recognizes the Red Bluff – Mira Loma 500 kV Transmission Project was studied as an economic study request in the 2018/19 TPP. Using the Base Case only, the ISO's 2018/19 analysis concluded the benefit to cost ratio was not sufficient to find the need for the project and concluded that it may need to be revisited in the future as shown on Page 315 of the final report:

- *Based the TEAM ratepayer perspective, the benefit to cost ratio was not sufficient for the ISO to find the need for this project.*
- *This result may need to be revisited in the future, as conservative values were applied for the local capacity in the LA Basin area due to the uncertainty regarding future system requirements for the gas-fired generation fleet in the area, and the need for further coordination with the CPUC's IRP process and direction from that process. The ISO notes that consideration of system capacity requirements - which would heavily influence the capacity benefits assessed here - is best addressed within the IRP process.*

As noted in the conclusions of the last study plan above, the assumptions were "conservative and the project should be revisited in the future".

Analysis using 42 MMT Case

In the beginning of the 2019-20 TPP cycle, the CAISO published the new 42 MMT case in response to aggressive renewable goals set by CEC. The 2019/20 Base plan as proposed and presented has a base case statewide electric sector GHG reduction target of 42 million metric tons (MMT) by 2030 as set forth in Senate Bill (SB) 350. Using the 42MMT case published by the ISO from the 2018-19 transmission plan, NEER has performed a Production Cost Model (PCM) Analysis using GridView the same tool used by CAISO to evaluate economic transmission projects. The analysis used the case as available from the ISO as the Base case,

and Red Bluff to Mira Loma 500 kV line added with the line limits enforced, with no additional changes, and the proposed project as described below.

Project Description

- New ~140 mile 500 kV transmission line between the Red Bluff 500 kV substation and Mira Loma 500 kV substation (Line ratings: 3,421 MVA Normal, 3,880 MVA Emergency).
- 50% Series Compensation with an optimal location in the line to be determined from further studies (Line ratings: 3,291 MVA Summer Normal, 3,949 MVA Summer Emergency).
- Estimated capital cost \$850 million.

Replicating the Benefit to Cost Ratio methodology of the ISO per TEAM methodology, provide a benefit to cost ratio of 1.3, as shown in the table below.

Ratepayer Benefits (\$million/year)	104
PV of Prod Cost Savings (\$million)	1431
Capital Cost Estimate (\$million)	840
Estimated "Total" Cost (screening) (\$million)	1105
Benefit to Cost	1.3

Summary of Benefits

The Red-Bluff to Mira Loma project is long-term multi-value project which addresses reliability, economic and policy considerations, including the following:

- Economic Load and System Production Cost Savings
- Capacity Deferral Savings
- Relieve Constraints for interconnecting new Renewable Generation and storage resources
- Reduces Renewable curtailments
- Provides Deliverability to existing generation resources
- Provides reliability support of underlying transmission system

Request for Model

NextEra appreciates the time and effort undertaken to produce the Gridview Production Cost Model used to incorporate the more aggressive CEC and CPUC assumptions, stakeholder input to follow the planning process. NextEra requests the preliminary model be posted when the preliminary policy and economic study results are reviewed in November, so all stakeholders can review during the comment period. Having full access to the preliminary model will provide a first glance for stakeholders to validate what is outlined in the transmission plan and provide feedback to the ISO.

Conclusion

NEER commends CAISO's staff for all of their time and effort put into defining appropriate input assumptions in the 2019-2020 TPP cycle. NEER submits these comments with the goal of enhancing the processes utilized in the evaluation and selection of the least cost, most efficient

and effective reliability, economic, and public policy transmission projects in the transmission planning process. NEER appreciates the opportunity to participate in the transmission planning process and to provide these comments.