

Division of Ratepayer Advocates of the California Public Utilities Commission
Comments
2010 Phase 1 California Transmission Planning Group (CTPG) 2020 Study Report
Draft January 13, 2010

The Division of Ratepayer Advocates of the California Public Utilities Commission (DRA) appreciates the opportunity to comment on the 2010 Phase 1 CTPG 2020 Study Report Draft, issued on January 13, 2010, and discussed at a stakeholder meeting on January 25, 2010.

DRA has a statutory responsibility to advocate for the ratepayers of the State of California in order that they obtain the lowest possible rate for service consistent with reliable and safe service levels. Based on the results of the CTPG Study, there could be a significant cost impact on these ratepayers due to transmission upgrades required as a result of the study.

As described in the California Independent System Operator (CAISO) Draft Final Proposal for the 33% Renewable Energy Transmission Planning Process (RETPP), the CTPG is responsible for developing the statewide conceptual transmission plan which is Phase 1 of the overall CAISO RETPP. This statewide plan will be the definitive input of transmission elements used to develop specific project in Phase 2 and Phase 3 of the CAISO RETPP. DRA is pleased that the CTPG appears to have hit the ground running and produced this 2010 Phase 1 Study Report in a timely fashion.

The CTPG held its first stakeholder meeting in San Diego on January 20, 2010. This meeting was attended by members of the Energy Division of the CPUC. DRA attended the afternoon session by teleconference with listen only capability. Unfortunately, the facility audio was non-functional during most of the meeting so stakeholder comments could not be heard via teleconference.

Nevertheless, the draft report represents a significant analysis effort by the CTPG to address issues raised by the planned implementation of the 33% RPS on the transmission infrastructure of the state. Our comments are as follows:

I. As shown in Figure 3 of the draft report, most of the renewable resources presently identified are located in the southern part of the state. The CTPG draft report states that to accommodate the approximately 9,300 MW of in-state and the 3,700 MW of out-of-state expected renewable generation it is necessary to reduce the output of fossil-fired generation by corresponding amounts. To accomplish this, the CTPG study reduces the fossil generation in block decrements equal to the incremental increase in renewable generation. The solitary criterion for removal of fossil generation was that the least economic generators would be reduced first.

Using this criterion, the study showed that most, if not all, of the fossil generators to be shut down and replaced with renewable power are located in the northern part of the

state. As described in the draft report, this results in a very significant impact on the current transmission infrastructure of the state as follows:

1. The historical power flow through the major north-south interties (Paths 15 and 26) will be reversed from North-to-South to South-to-North. To accommodate this flow reversal, major upgrades to these lengthy paths will be required.
2. Much of the southern transmission line foundation must be upgraded to handle the large increase of renewable generation in the southern region.

As a result, it seems imperative that the study incorporate additional criteria rather than just relying on the sole criterion of reducing the least economic fossil plant first. DRA believes that the present single criterion for fossil decrementation should be replaced by the following criteria in order of application:

1. For each increment of renewable resource added in a particular area of the state, there should be a corresponding decrement of fossil generation in the same area of the state.
2. If that is not possible, then fossil generation should be decremented at a location based on an assessment of the impact of the added renewable generation on the major foundation transmission infrastructure of the state, e.g., Path 15, Path 26 and others.
3. Lastly, least economic fossil generators should be decremented before highly efficient plants providing criterion 1 and criterion 2 are met.

The present cases described in the draft report should be adjusted to reflect using the additional criteria as described above.

II. As stated in Section 5.3, page 29, of the Draft Study Report, it appears that fossil-fired Generation was reduced in amounts equal to the added increment of renewable generation. Since renewables are generally less dispatchable, have less load following capability and have different operational characteristics, it takes more renewable generation to replace a given amount of fossil generation. The exact adjustment factor is in debate but this factor should be taken into account in the study.

III. The Phase 1 Study Results show that major changes will be required to be made in the Transmission Line infrastructure of the state. This will be an upgrade of significant cost. Preliminary cost information should be provided for each of the necessary upgrades indicated by the study.

IV. Minor Comments as follows:

- A. Table 8, Fossil Generation Decrement Example – First Block is provided on page 29 of the Draft Study Report. All Blocks should be included in the report for reference.
- B. In Table 11, mid-page 33, Kramer CREZ/Renewable Development Area indicates a Grid Configuration Change of “Expand Kramer substation by adding 500 kV capability.” The renewables are to be connected to an

existing Kramer 230 kV bus. No explanation is provided for the expansion for 500 kV in the substation.

- C. Paragraph 6.1.2, Power Flow Analysis, page 35, has a Microsoft bookmark error typed in. The correct reference (Table 12?) should be used.
- D. In Paragraph 6.2, Case B, mid-page 43, “Table21” reference is repeated twice.
- E. In Table 30, lower quarter-page, Tehachapi, indicates “Connect renewable to *new* Barren Ridge 230 kV bus. Addition of new Barren Ridge 230 kV bus cannot be found elsewhere.

This concludes DRA comments on the 2010 Phase 1 CTPG 2020 Draft Study Report.

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