

**CTPG RETI Stakeholder Input Conference Call
January 25, 2010
Stakeholder Questions and Comments**

The following are the RETI Stakeholder comments and questions from the January 25th conference call pertaining to the 2010 Phase 1 CTPG 2020 Study Report presented at the January 20th CTPG RETI Stakeholder Input meeting and comments and suggestions of what should be included in the Phase 2 Study Plan. If questions were answered during the call by representatives of CTPG, the response is included below. In some cases, CTPG has expanded on the responses given at the meeting and the expanded responses are shown below. CTPG may provide further responses at a later date.

Commenter 1 - Hank Pielage CPUC DRA

Q: When will the Final Phase 1 Study Report be published?

A: (Heather Sanders) February 15, 2010

Comment: Like to suggest that the increment/decrement criteria is too narrow resulting in significant impacts to Path 15 and Path 26 reversing their flows which is historically unprecedented. Recommend a three-fold criteria for adding renewables and removing fossil-fueled plants.

1. Apply increments of renewables and decrements of fossil fuel in the same geographic area.
2. To the extent this is not possible then coordinate so as to avoid impacts to major transmission paths.
3. Apply same economic criteria that CTPG is currently using.

Commenter 2 - Armie Perez Z Global

Q: Has there been any matching of CTPG study cases with CAISO cases?

A: Need to research.

Q: Has CTPG completed, or have plans to complete, an economic analysis of proposed solutions?

A. The CTPG Guidance Document indicates that CTPG's joint transmission planning principles include (i) the development and implementation of "cost-effective transmission system expansions," (ii) the performance of studies "to evaluate the...costs and benefits of proposed transmission projects," (iii) adherence to FERC Order 890 planning principles including "economic

planning studies,” and (iv) following WECC Regional Planning Guidelines including the review of “upgrades or reasonable alternatives to the project to meet the need (including non-transmission alternatives where appropriate)”. Further, the Guidance Document identifies a transmission development need to “identify and relieve congestion constraints where economic to do so” and to “develop cost effective transmission lines.”

Accordingly, the CTPG Guidance Document contemplates economic analysis of proposed infrastructure additions relative to other alternatives. However, at this time, CTPG has no definite plans to conduct "strategically selected production simulations" in Phase 2, but is evaluating whether resources will be available to conduct some production simulations study cases in Phase 3.

Q: If and when you do, will CTPG take in to account projects submitted to the CAISO?

A: The CTPG study team will take this comment under advisement.

Commenter 3 - Dariush Shirmohammadi, CalWEA

Q: In heavy south cases CalWEA noticed that Path 26 was not loaded near its limit. What would Path 26 consist of after the Tehachapi project? Why wasn't Path 26 loaded nearer to the 4000 MW limit?

A: (Jan Strack) In the study cases we attempted to look at more typical scenarios. Darius agreed that this was a good approach, i.e. that the problem, or constraint is with south-to-north flows.

A: Further Response -- Based on the generation dispatch pattern reflected in the WECC 2019 “Heavy Summer” seed case, and the pattern of renewable resource additions and corresponding fossil-fired generation decrements, in the A2, B2 and C2 cases, north to south flows on Path 26 did not approach the path limit. These results are consistent with what might be considered “typical” given increased renewable energy production in southern California and reduced fossil-fired generation dispatch in northern California. (The CalWEA representative agreed that future flows on Path 26 and Path 15 were likely to move in the direction of greater south to north flows rather than the historical north to south flow.)

The CTPG also constructed a scenario where south to north path flows on Path 15 were simulated at the path limit prior to the addition of any renewable resources and corresponding fossil-fired generation decrements (the “A-SN” cases). An assessment of the frequency with which such system conditions could appear in the future would be useful in supporting the need for

measures (such as transmission infrastructure additions along Path 15) that mitigate reliability criteria violations that were identified.

Q: How will Path 26 be defined after the Tehachapi Segments 1-11 projects are built?

A: The Tehachapi Segments 1-11 project would not appear to change the definition of Path 26 since the project includes no new connections to Midway substation from the south.

Q: Noticed that the Phase 1 study report suggests a Kramer – Lugo and Kramer – Midway proposed transmission lines. Suggest going from Kramer –Windhub allowing a connection from Midway to go to either to enable expansion of resource areas while strengthening south-to-north transfer capabilities.

Q: Why was a 20% of nameplate generation output discount factor utilized for wind resources? Is there any effort to develop a common acceptable value?

A: (Jan Strack) 20% chosen as acceptable value amidst many options.

A: (Mo Beshir) Darius, do you have a suggestion? Darius: Not at this time.

A: Further Response -- Recognizing the range of wind discount factors currently in use by the CAISO (40% in interconnection studies and 10% or lower for Resource Adequacy counting purposes), CTPG adopted a number that was between the largest and smallest discount factors used by the CAISO. Note that for some of the CREZs evaluated by the CTPG (Tehachapi for example), higher discount factors were used based on monthly/hourly wind output profile data developed by the CAISO.

In terms of developing a common factor, CTPG welcomes suggestions and input from the CAISO and other parties and acknowledges CalWEA's offer to discuss this matter further.

Commentor 4 - Pushkar Wagle (Flynn RCI)

Q: Table 41 in Phase 1 Study Report compares RETI and CTPG projects. Can projects be added from the CAISO's September 15, 2009 2020 conceptual renewable transmission plan?

Commenter 5 - Susan Schneider (Phoenix Consulting)

Q: Were written comments due today?

A: (Heather Sanders) The date has been revised, the written comments for both the Phase 1 Study Report and the Phase 2 Study Plan are due on February 8th. We encourage comments before those dates due to the tight schedule.