

BAMx Comments on CTPG Phase 1 Draft Study Report and Phase 2 Study Plan

Summary Comments:

In BAMx' last comments dated December 21, 2009, we were very concerned about the willingness of the CTPG to be open and transparent with their planning process. Many others expressed similar concerns. We have seen a major shift in willingness of CTPG to share the results of their studies. You are to be congratulated on this major shift towards openness and transparency. Our concern now turns to the assumptions made in those studies and the documentation of results.

General concepts are explained in the CTPG Phase 1 Draft Study Report, but how those general concepts are applied to develop an assumed transmission configuration is less transparent. For instance, the set of renewables transmission conceived to deliver varies from the RETI work because of 1) CTPG builds just enough to cover the net short renewable need, whereas RETI conceived of transmission for 160% of the net, and 2) CTPG renewable procurement plans relied on commercial interest in forms of signed Power Purchase Agreements (PPAs) and interconnection priority application versus the RETI's approach based on economically and environmentally feasible renewable development. BAMx agrees with CTPG that it should concentrate on developing the transmission plan to support 100% of the net short at this time. It is unclear to us whether the greater reliance on the commercial interest is superior to the one adopted by RETI. Moreover, it is difficult to follow how the CTPG approach led to the specific transmission projects selected. CTPG needs to better document their transmission selection process. For instance, the CTPG Phase 1 study report does not provide insights into why several transmission upgrades were included in all CTPG cases. Simply being included the 2019 WECC Base (Seed) case does not provide adequate justification for inclusion of these projects. Moreover, the report does not document the approval status for some projects that have received key approvals and/or environmental permits. Furthermore, the Phase 2 study plan does not add anything in this regard to the Phase 1 study report.

A key procedural aspect that concerns BAMx members is the compressed timing of the process. It appears that decisions are being made for the Phase 2 studies before comments are received from Stakeholders on the Phase 1 studies. This particular issue appears critical given the fact that there was no Stakeholder involvement in the initial study plan for Phase 1. The next steps as described in the Phase 1 report include testing a reasonable range of renewable net short estimates that may be defined by RETI. Meanwhile, the stakeholders are asked to comment on the Phase 2 study plan, which does not include any of these alternative renewable net short estimates. Another next step as described by CTPG includes testing other fossil-fired generation dispatch patterns that would accommodate the increase in renewable generation. However, the phase 2 plan does not seem to be inclusive of the approach. BAMx is concerned that absent the appropriate fossil-fired generation dispatch, the Phase 2 study approach will not adequately address minimizing the economic and environmental impact of the renewable transmission. As an example of the need to adjust generation, the Phase 1 study report concludes that

under certain cases, significant upgrades will be required to both Path 26 and Path 15 to accommodate the expected high north-bound flows. This is a significant finding but CTPG needs to determine whether adjusting fossil generation can eliminate the problem. BAMx suggests that CTPG should develop a transmission plan that entails the least cost method to interconnect the renewables. So as far as the Phase 1, 2 & 3 load flow studies are concerned, the planners should assume that they can adjust the generation to relieve any reliability concerns. It may very well be that more transmission should be built to reduce congestion. But that should be justified by a separate economic study.

It is clear based on our comments above that CTPG needs to perform significant additional study work, including market simulation studies to identify a robust set of transmission elements that could be declared “needed.” It is however unclear to us that the required study work will be accomplished in time to delineate a “No Regret” set of transmission projects by the end of 2010 as indicated in the CTPG project schedule.

Comments on Specific Issues:

CTPG Phase 1 Draft Study Report

1. What was the rationale behind CTPG using the CEC's forecast of rooftop solar photovoltaic penetration for year 2020 (3,218 GWh), which is significantly lower than RETI estimate for rooftop solar (7,358 GWh)?
2. CTPG Phase 1 report states that rooftop PV and other distribution-level generation were considered as a reduction to load. BAMx would argue that if the distributed generation is on the utility-side of the meter, it should not be considered as load reduction but as a renewable resource.
3. CTPG's presentation to the stakeholders dated January 20, 2010 states that each utility provided renewable procurement plans reflecting installed capacity, and in some cases the expected renewable dispatch at time of peak. In other cases CTPG used generic factors to relate nameplate capacity to expected renewable dispatch for the hour of study (e.g., peak hour, off-peak hour). Please elaborate how the renewable resource additions were computed in these cases by giving specific examples.
4. CTPG lists several transmission upgrades included in the WECC 2019 "Heavy Summer" Seed Case that were assumed in all the study cases which fall in two categories. One with projects that have received key approvals and/or environmental permits such as, the Tehachapi Segments 1-11 and Sunrise Powerlink project; and the other which haven't such as, 500 kV Colorado River-Devers #2 line, expanding Barren Ridge 230 kV substation, etc. First, please identify the approval stage associated with each of these projects in the first category. Second, please explain the criteria used to select the new projects modeled in the 2019 "Heavy Summer" Seed Case.
5. We would generally expect the COI (N-S) flows to decline as the In-state renewable dispatch goes up. This generally seems to be the case as depicted in Figure 4 (Case C Interface Flows) in the Phase 1 study report. However, as renewable dispatch goes up from 1,000MW to 2,000MW, the COI flows seem to only increase a little. Please explain this anomaly.

6. One of the next steps in the report includes continuing the OTC studies and updating the CTPG's conceptual transmission plan as appropriate, which gives an impression that CTPG has already explored some level of OTC retirement studies. If so, please provide information related to this work.
7. Table 11 (Case A1 and B1 - Grid Configuration Changes to enable CREZ Network Connection) provides renewable resource connection or grid configuration schemes for each area/CREZ. However, the reasons for including certain transmission projects in certain cases are not adequately described. Please provide more details that would help the stakeholders to understand the process involved in including/excluding each of these transmission projects. Providing further details on elements of these transmission projects would also be helpful. You may wish to appoint a contact person(s) to answer questions about the envisioned/assumed projects.

Phase 2 Study Plan

1. CTPG Phase 2-Queue Portfolio (Table 3) included in the Phase 2 study plan has hardly any information incorporated on the Renewable Generation Portfolio relative to those included in the Phase 1 study report and those assumed by RETI, which makes it extremely difficult for the stakeholders to provide any meaningful comments on the Phase 2 study plan. Please allow the stakeholders to submit another set of comments once CTPG meets with RETI and provides a more complete Renewable Generation Portfolio.
2. BAMx appreciates the two additional *Northwest* and *Southwest* scenarios as proposed by CTPG under Phase 2 study plan. BAMx considers them as a step in the right direction, but these two scenarios might not be sufficient in demonstrating how to minimize the level of "needed" transmission. Moreover, the Phase 2 study plan lists the In-state resources that would be decremented in the two scenarios. Please elaborate on how this determination was made.
3. BAMx requests CTPG to develop additional scenarios that use assumptions of renewable resource locations and development that would make efficient use of existing transmission facilities and minimize new transmission costs and environmental impacts. These assumptions should incorporate, but not be limited to the following.
 - a. Select CREZs that have minimal new transmission requirements;
 - b. Look at the full range of opportunities/market for out-of-state renewables;
 - c. Assume higher levels of distributed renewables to discover at what levels this assumption would cause significant reductions in transmission investment, thereby giving us an indication of the economic and environmental benefits in spending more effort in developing these technologies ;
 - d. Assume more reliance on REC's that captures how the flexible use of RECs could reduce the cost and environmental impact of new transmission; and
 - e. Account for the ability of fossil-fired generation dispatch that can relieve criteria violations.