Response of the California Transmission Planning Group
Study Team to

Comments of Arkay Solar
"Regarding the California Transmission Planning Group's Renewable Energy Transmission Planning Process (RETPP)
and the Final Study Plan following the March and April 2010 Stakeholder Calls"

The CTPG Study Team prefaces its response to Arkay Solar's comments by clarifying that the proposed Renewable Energy Transmission Planning Process (RETPP) is an initiative of the California Independent System Operator and is not sponsored by the California Transmission Planning Group.

Comment Received:

In light of the transmission scenarios in other Southwest states, the California Renewable Energy Transmission Initiative Heavy In-State Portfolio of 70/30 Out-of-State may be slightly skewed in an optimistic direction. By 2020, there will be significant levels of out-of-state capacity not considered in the Phase 2 Final Study Plan and a reasoned approach to estimating and evaluating the renewable generation capacity and the true transmission capacity at Kramer Junction and in the surrounding areas must be developed.

The East-to-West line between Kramer – Barstow – Pisgah is vital to the development of solar energy in Southern California and the entire State. The difference between California Renewable Energy Transmission Initiative's assumptions for Kramer in the Final Study Plan Table 4.5, "Heavy In-State Portfolio", and the assumptions in Table 4.7, "Desert SW Portfolio", is of concern to Arkay Solar. The CTPG should not dismiss the renewable generation capabilities of the Southern California deserts. The objective of the Desert SW scenario is to plan for mitigation as other Portfolios change, but the scenarios lack a necessary balance.

CTPG Study Team Response:

With respect to the assertion that "the East-to-West line between Kramer – Barstow – Pisgah is vital to the development of solar energy in Southern California and the entire State", CTPG's Phase 2 studies did not identify any reliability criteria violations that a 500-kV Pisgah-Barstow1 #1 line and 500-kV Barstow1-Kramer #1 line would effectively mitigate, except in the scenario reflecting emerging state policies regarding the use of water for once-through cooling. (The underlying assumptions for the once-through cooling scenario are rooted in certain of CTPG's Phase 1 scenarios.) Further, CTPG is developing a process for identifying which of the various transmission expansion projects identified in CTPG's Phase 1 and Phase 2 studies would be included in a CTPG conceptual transmission plan corresponding to a set of *expected* system conditions (as contrasted with the various *assumed* system conditions used in the scenarios CTPG has studied thus far). Based on expected system conditions, the 500-kV Pisgah-Barstow1 #1 line and 500-kV Barstow1-Kramer #1 line may or may not prove "vital" in supporting the development of renewable resources in the Kramer area.

Turning to the differences in the assumed levels of renewable resource development in the Kramer area between the California Renewable Energy Transmission Initiative Heavy In-State scenario (2724 megawatts/6280 gigawatt-hours) and CTPG's B-SW scenario (33 megawatts/260 gigawatt-hours), the basic difference is that the California Renewable Energy Transmission Initiative scenario includes a "discounted core" of renewable resources that hold power purchase agreements approved by an appropriate regulatory entity and that have filed applications for permits to construct the projects with appropriate permitting agencies, while CTPG's B-SW scenario is based on renewable resources that are in the generator interconnection queues of the various California Balancing Authorities. For the Kramer CREZ, it would appear that many of the renewable resource developers holding purchase power contracts have not yet entered the generator interconnection study process.

Next, with respect to the logic of decrementing "southern California resources just to accommodate the Desert SW scenario", as explained in the Section 4.3.D of the Draft Phase 2 Study Report, southern California resources were decremented to accommodate the 3500 megawatts of additional desert southwest resources (providing an additional 7822 gigawatt-hours of energy) without exceeding the year 2020 estimated net short of 52,764 gigawatt-hours. Arkay Solar is correct that decrementing only southern California renewable resources was an assumption selected by the Study Team based on the Team's judgment. The Study Team agrees that other assumptions could have been chosen and, as Arkay Solar notes, it may prove to be the case that more renewable resources could get developed than those needed to meet a 52,764 gigawatt-hours net short. The Study Team, however, had no objective basis for determining what this additional amount might be or the timing of when those resources would be developed. Therefore, pending further information and developments, CTPG has focused its studies using assumptions predicated on resolving the current net short estimate of 52,764 gigawatt-hours.

Finally, Arkay Solar implies that CTPG is "dismiss[ing] the renewable generation capabilities of the Southern California deserts." The CTPG Study Team disagrees that this is the case. For example, the total amount of renewable development in the southern California desert regions (comprised of the Barstow, Fairmont, Imperial East, Imperial North-A, Imperial North-B, Imperial South, Kramer, Mountain Pass, Needles, Palm Springs, Pisgah, Riverside East, San Bernardino-Baker, San Bernardino-Lucerne, Twentynine Palms, and Victorville CREZs) is assumed to be 7565 megawatts in most of CTPG's Phase 2 scenarios, which represents significant levels of generation capacity for these areas. (See Table 4.3 in CTPG's draft Phase 3 Study Plan.)