

**California Transmission Planning Group (CTPG)  
Technical Study Team Response to the  
June 1, 2011, Comments of First Solar on the  
CTPG's Proposed 2011 Work Plan**

**Comment:**

The CTPG Phase 4 study concluded that “the initial set of associated ‘high potential’ transmission elements could potentially provide transmission capacity to avoid reliability standard violations when the renewable energy is being delivered to meet a California RPS of approximately 22% to 24% in year 2020.”<sup>1</sup> Yet much of the data used to derive those conclusions was based on outdated data from the California Energy Commission (“CEC”) Integrated Energy Policy Report (“IEPR”) 2009 forecast<sup>2</sup>. The California Renewable Energy Transmission Initiative (“RETI”) generation forecast data and the Renewable Solicitation values used in developing the Discounted Core and resultant Net Short were all derived from the same data sources<sup>3</sup> collected prior to 2009. Not only does the Net Short need to be updated, as proposed in the 2011 Work plan, but commercial interest as correlated in the Discounted Core assumptions needs to be updated as well to reflect today’s utilization of the major projects proposed in the plan.

The data used and resultant conclusions could have major impacts on the identification of viable renewable resource integration, least regrets and high potential transmission, and additional resource needs to achieve 33-percent RPS by 2020.

**CTPG Technical Study Team Response:**

For the 2011 study work, the CTPG Technical Study Team has decided to use the CEC staff’s May 2011 load forecast update. This update is documented in the May 2011 document entitled “*Updated California Energy Demand Forecast 2011-2022.*” The projections contained in this document will be used to update the CTPG’s renewable net short estimate as well as to set the peak load levels in the CTPG power flow seed case for all California-based balancing authority areas. The CEC staff has provided a range of load forecasts based on varying assumptions described in the document. The CTPG has decided it will use the CEC staff load forecast that produces the highest renewable net short estimate for year 2020.

The CTPG shares First Solar’s interest in updating the California Public Utilities Commission’s (“CPUC’s”) “discounted core” of renewable resources. The CTPG has contacted the CPUC for an updated list. The CTPG expects that the CPUC’s discounted core, augmented with equivalent information from municipal utilities, will form the basis for a number of the renewable resource portfolios that the CTPG expects to evaluate in 2011.

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<sup>1</sup> CTPG Draft Final Statewide Plan at 9.

<sup>2</sup> <http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-SF-REV.pdf>

<sup>3</sup> California Energy Commission, “California Energy Demand 2008-2018,”

**Comment:**

The current meter point for Path 46 and the Southern California Import Transmission (“SCIT”) nomogram for the Palo Verde-Devers line is Devers Substation. With the current Southern California Edison activities to construct a new Devers-Colorado River 500-kV line, Red Bluff Substation and the Valley-Devers 500-kV line, the transmission system between the River and Devers is being strengthened substantially. As such, generation additions in the Riverside area may perform more like generation within the SCIT than resources further east.

As the SCIT nomogram can limit the utilization of transmission capacity, the structure of the SCIT nomogram needs to be rethought given transmission infrastructure additions. The current SCIT boundary is at Devers simply because it was the only point of metering of generation delivered from Palo Verde. This results in generation at Red Bluff and Colorado River being outside of the SCIT and subject to SCIT import limits. An assessment should be prepared to investigate the impacts on transfer capability if the meter point for the rated Paths and the SCIT is moved to Palo Verde-Colorado River line at Colorado River. It is time to rethink the boundaries correctly at the first metering point inside California which will be Colorado River or Red Bluff.

Therefore it is likely that the SCIT needs to be reviewed at all import points to determine if the assumptions previously made on metering points, delivery points, and the nomogram include the 2020 transmission upgrade plans.

**CTPG Technical Study Team Response:**

First Solar’s points are well taken and will be taken under advisement. The CTPG Technical Study Team has been discussing the implications of new transmission, as well as the disposition of existing coastal generating units using Once-Through Cooling (OTC) technology, for the existing SCIT nomogram. The CTPG Technical Study Team has not yet reached any decisions on this matter.

**Comment:**

The draft work plan *must* address these important questions of timing, permitting and schedules for each of the planned transmission upgrades between now and 2020, as well as any potential operating restrictions during construction of these upgrades, which may require existing transmission facilities to be taken out of service so that developers can plan accordingly. The Members of the CTPG, as the owners of the transmission systems, are the appropriate entities to provide expected scheduling of all projects inside California.

In order for that ultimate goal to be reached, CTPG Members must take into account commercial realities –including, but not limited to, terms of CPUC-approved power purchase agreements

(“PPAs”), the required in-service dates of transmission to accommodate those projects, their ultimate commercial on line dates, and the expiration of the Investment Tax Credits in 2016. This may include, if required, interim solutions to ensure sufficient transmission can come on-line and be in-service and projects deliverable by or before 2020. Renewable developers require a clear path to achieve viability and financeability, ensuring that generators with viable projects can take advantage of new transmission capacity that is constructed.

**CTPG Technical Study Team Response:**

Given the scope of the CTPG’s 2011 study work, the CTPG will not undertake an assessment of reliability criteria violations which could arise with renewable resources added to meet intermediate term (prior to year 2020) renewable resource requirements. Accordingly, the CTPG will not be considering any “interim solutions” for mitigating such possible violations.

The CTPG Technical Study Team also notes that the CTPG performs long-term transmission planning studies; operational studies are outside of the range of work that the CTPG contemplates. First Solar is encouraged to consult with the respective Balancing Authority operators for specific operating issues that may arise when existing transmission facilities must be taken out of service in order to allow for construction of new transmission. The respective Balancing Authorities are the entities that will schedule whatever outages are needed in order to allow the construction of new transmission.

As a long-term transmission planning organization, the “commercial realities” referenced by First Solar (*e.g.*, the specific terms of Power Purchase Agreements, the expiration of the Investment Tax Credit) are generally outside the scope of what CTPG will examine.

The CTPG is not certain what First Solar’s reference to “deliverable” implies. Deliverability has a specific meaning in the California ISO tariff (the ability to count towards a California ISO load-serving entity’s Resource Adequacy obligations), but a number of CTPG Members are not subject to the CAISO tariff. Further, it is not necessarily the case that the transmission upgrades that would make particular generators “deliverable” under the terms of the California ISO tariff would be sensible to build. If the costs of such an upgrade exceeded the benefits provided by the upgrade (including the value of the Resource Adequacy counting rights that the upgrade makes available) as compared to other alternatives, then it would not make sense to move forward with the upgrade – it would be better to pursue the alternative. The CTPG has determined that it will not undertake, in its 2011 study work, the economic analyses that would be necessary to establish that any particular transmission upgrade that makes one or more generators “deliverable” under the terms of the California ISO tariff is cost-effective. For now, the CTPG is leaving such analyses to the project sponsors who must secure applicable regulatory approvals.