

## COMMENTS TO CTPG ON SCENARIOS AND ASSESSMENT

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The scenarios that CTPG proposed to assess in Phase 2 of the 2011 CTPG effort were reviewed in a stakeholder conference call on July 26. Despite the focus on distributed generation from the Governor's Office – the July 25-26 conference at UCLA happening simultaneous with the CTPG conference call – no CTPG scenario reflects the high penetration of DG espoused by the Governor. CTPG maintains that it is too late to add any scenarios for its 2011 effort, but a modest modification to CTPG's analysis plan might shed light on the many issues about a high DG (principally PV) future.

Scenario 7 is composed of a high amount of central solar resource development. It includes 3,468 MW of solar thermal and 8,386 MW of solar PV (nameplate values) located principally in the Central Valley. CTPG proposes to assess this scenario during a time of system peak (expected to be July weekday at 4PM) induced by 1:10 loads in Northern California and 1:2 peak loads in Southern California. As proposed by CTPG the assessment would identify needed upgrades resulting from changes in foundational path flows in which path 15 flows south to north, and path 26 flows north to south.

CEC staff proposes that the same scenario characteristics be examined using another common transmission planning stereotype – winter peaks. Winter peaks in most of California are in December in HE 1900. Virtually all solar resources, whether large or small PV, or central solar thermal with some storage extending the power generation profile beyond sunlight hours will have minimal power generation in December in HE1900. Thus, examining Scenario 7 at two system conditions – summer peak as proposed by CTPG and winter peak as proposed here – will reveal how this resource mix performs at two different stressed conditions and perhaps identify underlying issues with high solar penetration rates that have not yet been examined in a systematic manner. A true DG scenario with the 12,000 MW of PV resources located close to load centers might have yet different path flows, but developing such a scenario may take longer than CTPG's schedule allows in 2011.

Several underlying issues might be highlighted by testing Scenario 7 under two different sets of conditions:

- a. What dispatchible fossil resources are required at these two different sets of system conditions that are certain to occur in each year?
- b. If there are discrepancies between fossil resources needed at summer peak and those needed at winter peak, can imports play a useful role in bridging the seasonal gap?

- c. Is generation likely to be available for import, but constrained by either major import paths or internal paths from satisfying loads under various contingencies?
- d. Would preservation of existing capacity at OTC sites assist in solving the seasonal gap?
- e. What further analysis is needed to examine a comparable scale of solar development, but implemented as DG closer to loads rather than central solar deployment?