

**California Transmission Planning Group (CTPG)
Technical Study Team Response to
Vote Solar Initiative's (Vote Solar's) Comments on
CTPG's Draft Phase 4 Study Report and CTPG's Draft Statewide Transmission Plan**

Comment:

In its comments on the Draft Phase 4 Study Report submitted in October 2010, Vote Solar offered the following comments and recommendations:

- 1) Keep the process transparent and open to stakeholder input;
- 2) Include economic evaluation of resources throughout the Western Interconnection to identify needed transmission to support regional needs;
- 3) Create a formal process for coordinating resource and transmission planning and operation throughout the Western Interconnection;
- 4) Create a tighter link to WECC's Regional Transmission Expansion Planning process; and,
- 5) Evaluate the potential for using renewable generation to balance renewable energy across the region, rather than planning to build a significant amount new natural gas plants for firming renewable energy.

Vote Solar reiterates its previous comments for the final 2010 Phase 4 Study Report and the 2010 Statewide Transmission Plan, and offers the following suggestions with an eye towards a future role for the CTPG.

Vote Solar strongly encourages the CTPG to expand its focus to support a regional renewable energy perspective. Rather than focusing on developing California's resources and transmission to support reaching the current 33-percent Renewable Portfolio Standard, Vote Solar believes it is in the best interests of the citizens and ratepayers of the state to have a more regional, WECC-wide and longer term approach. That is to say, the objective ought to be finding the most economical and sustainable renewable energy resources that can be brought to market in the quickest timeframe and with minimal impact on the environment. For the state to meet its energy and environmental policy goals at the least cost to consumers and least impact to the environment, the resources and transmission plans from across the region must be considered. The National Renewable Energy Laboratory prepared a report last May (referenced in Vote Solar's October 2010 comments) indicating a potential for California to export geothermal energy to Arizona, further supporting a regional approach to transmission and resource planning.

CTPG Technical Study Team Response:

The comments submitted by Vote Solar in October, 2010 were on CTPG's Draft Phase 4 Study Plan. CTPG responded to those comments and the CTPG's response is posted on the CTPG website at www.ctpg.us.

The CTPG agrees with Vote Solar on the need for a "regional renewable energy perspective." To that end, the CTPG has evaluated a number of scenarios that include renewable resources outside the state of California. For example:

- The CTPG's Phase 2 and Phase 3 studies included analysis of system impacts and benefits if additional renewable energy was imported into the state from the Pacific Northwest and Northwestern Nevada;
- The CTPG's Phase 4 analysis included a West-of-River Stress scenario. This scenario included a renewable resource development portfolio that assumed 8,658 megawatts of new renewable resources would be built outside the state of California, namely in Alberta, Arizona, Idaho, Montana, Nevada, New Mexico, Oregon, and Wyoming, and counted towards California's Renewable Portfolio Standard (RPS) goals. These resources are summarized on Table 4.7 of the Draft Phase 4 Study Report. Additional details are provided on the worksheet named "Summary_model_connections", which appears in the attached spreadsheet named "CTPG_WOR_scenario_Sept9am.xls", which is hosted on the CTPG website: http://www.ctpg.us/public/images/stories/downloads/ctpg_wor_scenario_sept9am.xls
- The CTPG's Phase 4 analysis also identified three "high potential" transmission corridors (Northwest Corridor, Northern Nevada Corridor, and Southwest Corridor) and recommended that these corridors be the subject of additional analyses in 2011.

In addition, to improve coordination with inter-regional transmission planning activities, the CTPG has committed to working with the WECC Transmission Expansion Planning Policy Committee (TEPPC) on a regular basis. Also, the Sierra Subregional Planning Group of WestConnect (the members of which include entities in Northern California and Northern Nevada) will be assessing two stakeholder alternatives for the Northern Nevada Corridor and has requested that the TEPPC assess these alternatives.

Comment:

Vote Solar recognizes that the CTPG is not a policy-setting organization in its current form, but Vote Solar also strongly suggests that the Study Plan and Statewide Transmission Plan do more to inform policy and provide guidance for policy-makers. With the dissolution of the California Renewable Energy Transmission Initiative, the CTPG is the only organization that represents a broad spectrum of California's transmission interests in planning to meet the state's energy and environmental policy goals. Vote Solar believes that it is entirely within the capabilities of this organization to participate in, inform and help shape how the state, and the western region, achieves these policy goals.

CTPG Technical Study Team Response:

As noted above, the CTPG has committed to working with the WECC Transmission Expansion Planning Policy Committee (TEPPC) on a regular basis. The CTPG expects that its involvement with TEPPC will help to "inform" and "shape" how the entire western region achieves its policy goals.

Comment:

Vote Solar believes the CTPG should evaluate scenarios for meeting regional policy goals to help shape its transmission plans. The CTPG should continue to seek stakeholder input for which scenarios to study, coordinating with WECC and the Sierra Pacific Subregional Planning Group to avoid duplication of effort and ensure consistency in planning efforts. One scenario Vote Solar recommends studying would be to use renewable resources across the Western Interconnection to balance renewables within California instead of relying on new natural gas plants for firming renewable energy. Scenarios that envision greater than 33-percent adoption of renewable energy, higher penetration of distributed generation, greater levels of energy efficiency, centralized and distributed energy, storage resource development, higher levels of electric vehicle penetration, more coal and fossil plant retirements throughout the region, and a California renewable export potential should also be investigated.

CTPG Technical Study Team Response:

The CTPG Technical Study Team agrees with Vote Solar that it is important to consider the possibility that renewable resources – both intermittent and non-intermittent – can be operated in a manner which provides integration services similar to that of new natural gas plants (*e.g.*, curtailing wind during severe over-generation conditions provides an operational benefit similar to dispatching down gas-fired generation). The CTPG Technical Study Team believes that consideration of this potential operational flexibility is best left to ongoing studies that are evaluating these options at significant depth, for example, the California ISO's 33-percent renewable integration study and the California Public Utilities Commission's Long-Term Procurement Plan (LTPP) proceeding.

Vote Solar's suggestion to investigate scenarios that envision (i) RPS goals above 33 percent of retail energy deliveries, (ii) a higher penetration of distributed generation, (iii) greater levels of energy efficiency, (iv) more centralized and distributed energy storage resource development, (v) higher levels of electric vehicle penetration, and (vi) more coal and fossil plant retirements throughout the region, are intriguing and will be taken under advisement by the CTPG as it develops its work plans for year 2011 and subsequent years.

Comment:

Vote Solar is working in neighboring states to create transmission and resource planning groups and processes that Vote Solar envisions will enable a more coordinated and cooperative process for regional planning, cost allocation and greater coordination amongst balancing area authorities in operating the grid. Vote Solar strongly recommends that the CTPG consider participating in such a formalized process across the region to achieve the current and future energy and environmental policy objectives of the region.

CTPG Technical Study Team Response:

The CTPG Technical Study Team agrees with Vote Solar that improved coordination of transmission planning processes throughout the WECC is needed. This is the subject of ongoing

discussions among the CTPG members and participants. Again, as noted above, the CTPG has committed to working more closely with the WECC Transmission Expansion Planning Policy Committee (TEPPC). In this regard, the CTPG also expects to apply to the TEPPC for recognition as a subregional transmission planning group during 2011.