



## **Study Request for Coordination with the California Transmission Planning Group**

The Vote Solar Initiative (“Vote Solar”)<sup>1</sup> is a non-profit advocacy organization that works in states around the country to bring solar into the mainstream. Vote Solar has been in discussions with our consultant aimed at increasing coordination of transmission plans that would facilitate renewable resource delivery to and from California. To that end, we respectfully submit the following *Study Request for Coordination with the California Transmission Planning Group* (“CTPG”)<sup>2</sup> for consideration, discussion and vote by the SWAT Oversight Committee at the November 2011 meeting.<sup>3</sup>

### **Overview, Purpose and Need of the Study Request**

Utilities and regulating bodies have long recognized the need for cooperative and coordinated transmission planning efforts over large geographic areas, including subregional areas.<sup>4</sup> These subregional planning efforts, and the coordinated efforts between subregional planning groups, will lead to the development of mutually beneficial generation, transmission capacity and system reliability.<sup>5</sup>

On September 19, 2011, CTPG released their Final 2011 Study Plan,<sup>6</sup> which identifies West of River (“WOR”) renewable import scenarios as part of the transmission planning analysis for California.<sup>7</sup> Since CTPG recently released a study plan that makes assumptions about generating resources within the SWAT footprint, it makes sense that SWAT should develop a complementary study plan and coordinate planning efforts with CTPG.<sup>8</sup>

The CTPG study plan identifies two specific WOR import scenarios by simulating injections, of various percentages, at key injection points and evaluating reliability criteria during normal operating and contingency conditions.<sup>9</sup> Each of these scenarios assumes that 41% of California’s renewable net short will be met with WOR imports. One scenario looks at injections at Eldorado (50%), Palo Verde (37.5%) and North Gila (12.5%), which would stress the northern WOR system, while the other scenario, with injections at Palo Verde (50%), Eldorado (37.5%) and North Gila (12.5%), would stress the southern WOR system.

We request that SWAT perform a study consistent with the CTPG assumptions and methodologies to ensure coordinated transmission planning processes occur between the subregional planning groups for the CTPG WOR scenarios. While the CTPG study only examines energy flows to California, Vote Solar requests that SWAT also examine scenarios including additional renewable energy exports from California to Arizona, such as baseload geothermal energy delivered to Arizona to provide additional renewable energy at peak periods.

---

<sup>1</sup> Vote Solar’s website is available at [www.votesolar.org](http://www.votesolar.org)

<sup>2</sup> CTPG website is available at <http://www.ctpg.us/>

<sup>3</sup> As a study request, only limited details on the assumptions, methodology and schedule are included. Pending interest in the proposed study request a formal study plan would be submitted to SWAT Oversight for approval at the February 2012 SWAT meeting. Consistent with the approved SWAT Charter page 7, the study plan will include assignment/allocation of study work, costs and other administrative details as determined by the group.

<sup>4</sup> “Subregional Areas” generally include a large geographic region, including all or portions of multiple states and multiple utility service areas.

<sup>5</sup> Both SWAT and CTPG are considered subregional planning groups by the Western Electric Coordinating Council.

<sup>6</sup> [http://www.ctpg.us/images/stories/ctpg-plan-development/2011/09-Sep/2011-09-20\\_2011\\_CTPG\\_Final\\_Study\\_Plan.pdf](http://www.ctpg.us/images/stories/ctpg-plan-development/2011/09-Sep/2011-09-20_2011_CTPG_Final_Study_Plan.pdf), see pages 6-7, 23

<sup>7</sup> The WOR scenarios are a potential resource scenarios that CTPG had identified based upon stakeholder input, generation interconnection queue data, transmission planning processes and resource location analysis.

<sup>8</sup> Vote Solar suggests such an effort is likely consistent with FERC Order 1000, which among other things requires interregional transmission planning.

<sup>9</sup> Consistent with CTPG’s planning assumptions and methodology, contingency analysis would include both steady state and stability analysis during single and double contingency events.

### **Objective of the Study Work**<sup>10</sup>

The *Study Request for Coordination with CTPG* has three key objectives.<sup>11</sup> These key objectives are:

1. Coordinate CTPG and SWAT transmission planning efforts and ensure assumption and methodological consistency;<sup>12</sup>
2. Identify the transmission upgrades and new facility construction required within the SWAT planning area and in seams,<sup>13</sup> consistent with the CTPG WOR import scenarios;<sup>14</sup>
3. Identify the transmission upgrades and new facility construction required within the SWAT planning area and in seams, consistent with California – Arizona export scenarios.

### **Study Work Tasks**

Vote Solar foresees, but does not wish to limit the study request to, three general tasks consistent with the CTPG study plan:

1. Development of detailed analysis methodology and assumptions for utilities within SWAT;
2. Transmission planning technical study work including steady-state, transient stability, and short circuit analysis during normal and contingency conditions;
3. Report study results.

Stakeholder input and participation is consistent with FERC Order 890 and thus throughout each of the three tasks, the group should solicit stakeholder involvement and comment.

### **Proposed Study Work Timeline**

At the November 2011 meeting, Vote Solar requests consideration, discussion and vote on the *Study Request for Coordination with CTPG*; if approved, we request assignment of the study to an appropriate existing subcommittee. Vote Solar anticipates the subcommittee would meet and prepare a study plan for consideration by the SWAT Oversight Committee at the February 2012 meeting. Vote Solar proposes that the subcommittee submit a draft report to the SWAT Oversight Committee at the November 2012 SWAT meeting. Vote Solar proposes that the subcommittee deliver the final report by December 31, 2012.<sup>15 16 17</sup>

Vote Solar appreciates SWAT's consideration of this *Study Request for Coordination with CTPG*. We see, and believe that others will see, the industry need and value of this study request in enhancing existing coordinated transmission planning efforts aimed at identifying and coordinating transmission expansion requirements in SWAT and adjacent subregional planning groups.

### **Vote Solar Contact Information**

Susannah Churchill, Solar Policy Advocate  
300 Brannan Street, Suite 609  
San Francisco, CA 94107  
office: 415 817 5065, cell: 415 335 0317  
email: [susannah@votesolar.org](mailto:susannah@votesolar.org)

---

<sup>10</sup> As with all transmission plans, the transmission expansion plans identified in this study effort may or may not ever be constructed, but are rather a road map for transmission expansion assuming significant new renewables imports to California while ensuring the resources are deliverable to load-serving entities.

<sup>11</sup> It is understood that objectives may be added, removed or modified to meet the objectives of SWAT's broader interests.

<sup>12</sup> CTPG representation (SWAT AWG Meeting 10-7-2011) indicated that in particular instances CTPG was uncertain regarding RMR units and dispatching of generation and made specific assumptions.

<sup>13</sup> "Seams" are locations or areas that connect two areas together. In this case, "seams" means the area in between CTPG and SWAT.

<sup>14</sup> WECC or utility reliability compliance are presumed components of the transmission planning required to identify system upgrades or new facilities.

<sup>15</sup> Vote Solar suggests this timeline only as a proposal, and encourages timeline modifications to match the needs, objectives and requirements of the group.

<sup>16</sup> The proposed timeline closely correlates to the annual planning process, consistent with the approved SWAT Charter.

<sup>17</sup> CTPG representation (SWAT AWG Meeting 10-7-2011) indicated this timeline closely corresponds to the CTPG annual cycle.