

**Response of the California Transmission Planning Group (CTPG)
Technical Study Team
to
Comments of Third Planet Windpower,
Foresight Wind Energy,
And Invenergy Wind Development
on
California Renewable Energy Transmission Initiative's (RETI's) Phase 2B Study Report
and
CTPG Phase 3 Study Process**

Comment Received

Third Planet Windpower (TPW), Foresight Wind Energy (Foresight) and Invenergy Wind Development (Invenergy) expressed significant concerns with the recommendations of the California Renewable Energy Transmission Initiative (RETI) Phase 2B Final Report. These concerns apply to the 1,467 megawatts of potential renewable development in Lassen County, identified as the Lassen North CREZ. The transmission costs and associated rankings identified in RETI Phase 2A Report (Section 3.5.14) are incorrect and no longer valid for the following reasons:

- The cost estimates and environmental impacts for the Lassen North CREZ transmission are based on the now cancelled TANC Transmission Project (TTP);
- The high cost of the TTP, estimated at \$735 million by RETI in the Phase 2A Report Table 1-1, and large environmental impact associated with the TTP, resulted in an incorrect low ranking for the Lassen North CREZ; and,
- TTP was cancelled therefore the associated rankings by RETI of the Lassen North CREZ are no longer valid.

CTPG Study Team Response:

CTPG's work to date has not included any assessment of transmission cost data and, at this time, CTPG takes no position on the accuracy of the transmission cost information included in the RETI Phase 2B Final Report. Since these comments regarding the transmission costs included in the RETI Phase 2B Final Report appear to be directed at RETI, the CTPG Study Team has forwarded the comments to the RETI coordinator (Rich Ferguson) at rich@ceert.org.

Comment Received

A new cost-effective transmission solution for the Lassen North CREZ was proposed by the Lassen Municipal Utility District (LMUD). The proposed LMUD 230-kV solution utilizes existing right-of-way corridors and has a capital cost of only a fraction of the previously proposed TTP solution.

CTPG Study Team Response

As noted above, CTPG's work to date has not included any assessment of transmission cost data and, at this time, CTPG takes no position on whether Lassen Municipal Utility District's proposed "transmission solution" has a capital cost that is "a fraction" of the cancelled TANC Transmission Project.

A number of CTPG's Phase 2 and Phase 3 scenarios included a new Raven 500-kV substation located in the Lassen North CREZ, a new 500-kV Zeta1 substation located close to the existing Round Mountain substation, and two new 500-kV lines connecting the Raven substation to the Zeta 1 substation. Each new 500-kV transmission line is assumed to be located in a separate right-of-way. These facilities would allow more than 2,000 megawatts of new renewable generation that may be developed in the Lassen North CREZ, and potentially in northwestern Nevada, to be delivered to the existing California grid under N-1 contingency conditions without the need to trip generation in the Lassen North CREZ.

The CTPG Phase 2 and 3 studies, which assumed high levels of renewable development in northern California, northwest Nevada and/or the Pacific Northwest (the "Ans-NW," "B-NW" and "A2-Northern" scenarios), were not able to achieve power-flow solutions under the modeled system conditions without the addition of new transmission in northern California. Specifically, with the addition of the 500-kV Captain Jack-Olinda #2 line and the 500-kV Olinda-Tracy #2 lines, a power-flow solution was achieved and there were no contingency-based reliability criteria violations in northern California with these additions.

Because the LMUD 230-kV solution was provided two months after the date by which CTPG requested stakeholders to submit specific transmission infrastructure "alternatives" for study in CTPG's Phase 3 studies, it was not included in the CTPG Phase 3 Study Plan. CTPG is, however, currently developing plans for its next cycle of studies and expects to provide opportunities for analysis of transmission infrastructure alternatives in the future.

Comment Received

The utilization of existing transmission corridors would result in a very high environmental ranking when evaluated under the RETI criteria. The combined cost savings and improved environmental score would make the Lassen North CREZ a viable renewable energy zone. The Lassen North CREZ is the only large undeveloped area of high wind resource in all of Northern California.

CTPG Study Team Response:

Comments on the RETI environmental scoring criteria should be directed to RETI. The CTPG Study Team has forwarded these comments to the RETI coordinator (Rich Ferguson) at rich@ceert.org.

The CTPG Study Team agrees with TPW, Foresight and Invenergy that the Lassen North CREZ is a "viable renewable energy zone" and notes that several of the renewable resource portfolios used in CTPG's Phase 1, Phase 2 and Phase 3 studies included significant amounts of renewable resources within the Lassen North CREZ. Specifically, the procurement plan portfolio, the generation queue portfolio, and the Northwest scenarios included renewable generation in the Lassen North CREZ. The table on page 75 of the draft Phase 3 Study Report shows, by technology, the assumed amounts of new renewable resources in the Lassen North CREZ.

Comment Received

Relying on southern California CREZs to supply almost all of the renewable RPS requirements for load-serving entities operating in northern California is bad policy for the following reasons: lack of resource diversity; transmission congestion on the north-to-south paths; and unequal regional distribution of the economic benefits associated with renewable energy development.

CTPG Study Team Response

The CTPG Study Team notes that all of the southern California renewable resource portfolios used in CTPG's Phase 1, Phase 2 and Phase 3 studies contain significant "resource diversity" based on the type of resource. As described in more detail in the CTPG Phase 1 and Phase 2 Study Reports and in CTPG's draft Phase 3 Study Report, each of these portfolios contain significant amounts of wind, solar and geothermal resources in southern California.

As discussed above, CTPG's studies have identified scenarios where the existing capability of the north-to-south paths within Northern California would be unable to simultaneously accommodate the simulated output of existing resources and the assumed patterns of renewable resource development during modeled peak load periods; i.e., there would be congestion on the north-to-south paths within Northern California. The addition of the 500-kV Captain Jack-Olinda #2 line and the 500-kV Olinda-Tracy #2 line would eliminate this congestion. . Issues related to the distribution of economic benefits of renewable energy development between northern and southern California are beyond the scope of the CTPG's technical studies.

In addition, as described above, CTPG did study several scenarios (the "Ans-NW," "B-NW" and "A2-Northern" scenarios) which evaluated meeting California's renewable portfolio standard RPS goals using significant renewable resources from Northern California, Northern Nevada and the Pacific Northwest.

Comment Received

The Lassen North CREZ and the proposed LMUD 230-kV Transmission Project should be evaluated in the CTPG process and should not be excluded from the CTPG Phase 3 scenarios or scenarios studied by CTPG in the future.

CTPG Study Team Response

Although the LMUD 230-kV transmission project was not submitted in time to be included in CTPG's Phase 3 studies, other northern California and Lassen County transmission projects including the Sierra Green Link project were submitted and included in CTPG's Phase 3 studies. As noted previously, the CTPG will provide opportunities for analyses of transmission infrastructure alternatives such as the LMUD 230-kV transmission project and other stakeholder-identified projects to be conducted in the future.

Comment Received

As regulatory and economic concerns continue to enhance the value and need of projects located within the State of California, TPW, Foresight and Invenergy believe all entities with oversight and transmission expansion responsibility should fairly evaluate all renewable resource potentials. The recent proposal by LMUD presents an additional option that was not fully considered. Based upon the comments listed above, TPW, Foresight and Invenergy request the CTPG process reconsider the inclusion and ranking of the Lassen North CREZ.

CTPG Study Team Response

As noted in the CTPG study team's response to comment 3 above, CTPG has evaluated renewable resource portfolios that include renewable resources, including wind, in the Lassen North CREZ. While it is too late to evaluate a 230-kV solution for reliably transmitting certain amounts of renewable energy from the Lassen North CREZ to the existing grid as part of CTPG's Phase 3 studies, CTPG expects to provide opportunities for analyses of transmission infrastructure alternatives in the future. Also, as an aside, the CTPG Study Team notes that none of the CTPG study reports issued as of June 14, 2010, assigns rankings to any CREZ. Once again, this is a comment that has been forwarded to California Renewable Energy Transmission Initiative for further evaluation.