

Cooperative Transmission Planning

The Renewable Energy Transmission Initiative (RETI) and The California Transmission Planning Group (CTPG)

RETI and CTPG are the two organizations in California whose respective missions include identification of transmission projects needed for the state to meet its renewable energy goals. Each organization has unique features which, when combined cooperatively, can provide results most likely to obtain broad consensus support from stakeholders and the public.

CTPG members are transmission owners and operators who have a legal obligation to serve load and have extensive knowledge of the state's transmission system and reliability requirements. RETI participants include not only CTPG members but also a broad spectrum of public agencies, renewable developers, environmentalists, and others. RETI relies on the transmission system expertise of CTPG members. CTPG views the broad stakeholder input provided by the RETI process on other technical and public policy issues that affect the transmission planning process as key inputs into its planning process.

Both RETI and CTPG are committed to key planning principles identified by FERC in Order 890, but the approaches to these goals of coordination, openness, transparency, and information exchange differ. CTPG provides opportunity for broad stakeholder input, but its process is focused on issues most directly related to its technical mission. While the basis for CTPG decisions is transparent to technical experts, the inclusion of RETI and its stakeholder process in CTPG will ensure that the concerns of RETI are given due consideration and will ensure the broadest participation possible. The cooperative RETI-CTPG transmission planning effort will result in a conceptual statewide transmission plan that will be critical input into the California ISO's transmission planning process and the planning deliberations of California's municipal utility balancing authorities

RETI's open consensus-based decision making process provides the opportunity for technical and non-technical participants to provide input on technical and policy issues outside CTPG's expertise. For example, the RETI Environmental Working Group (EWG) has been an important forum for considering the environmental consequences of renewable energy and transmission project alternatives. Environmental concerns associated with more than 100 potential transmission line segments were reported in RETI's Phase 2A report, and these segments are now being examined in detail by CTPG together with some others. RETI will continue to provide CTPG with input on environmental issues related to conceptual plan alternatives.

Both RETI and CTPG stakeholder forums are essential for robust transmission planning decisions which are technically sound and have broad public support. When the efforts are coordinated appropriately, transmission plans which emerge may provide a solid basis for permitting new transmission projects and ensuring that transmission infrastructure is linked to the most appropriate renewable energy zones.

A number of policy-related issues affect transmission planning decisions, including the level of future investment in energy efficiency, customer-owned generation, wholesale distributed generation, and so forth. State agencies may adopt official estimates for the penetration of these technologies for use by RETI and CTPG. If no official forecasts are available and diverse stakeholder input is useful for gaining consensus on areas of significant uncertainty, RETI will

continue to provide a forum for discussion and agreement on estimates or ranges of estimates for use in CTPG system analyses.

The key to RETI-CTPG transmission planning coordination is agreement on a suitable set of assumptions and scenarios to be used in the planning process. In general, RETI defers to CTPG input on technical electricity system implementation issues while CTPG relies on RETI input related to public policy issues and technical issues not related to electric system operations. For example, over the last two years RETI has invested considerable effort to develop consensus estimates of new renewable generation which requires transmission access to meet the state's policy goals, the so-called renewable "net short". CTPG relies on these estimates as a basis for its technical analysis, and RETI in turn relies on CTPG analysis for preliminary identification of transmission system upgrades needed to address system reliability and operability issues as well as deliverability of renewable resources to load.

Neither RETI nor CTPG knows what the future renewable generation development will be, of course, or what fossil generation will be displaced by renewable generation. Both groups agree that this uncertainty is inevitable and is best addressed through a multiple scenario approach to transmission planning. Both groups are providing detailed scenarios for CTPG analysis with the expectation that transmission projects found to be needed in all or most scenarios (i.e. "least regrets" projects) will have support from both stakeholder groups as the projects move forward into detailed planning, siting, and permitting processes.

RETI stakeholder input will also be helpful to the CTPG as transmission projects emerge from CTPG phase 2 and 3 modeling exercises. RETI participants have developed a methodology for estimating the relative degree of environmental concern associated with transmission projects. If transmission solutions initially identified by CTPG analysis appear to have a high degree of concern, CTPG and RETI can revisit the analysis to identify alternative solutions more likely to have public support before final detailed plans are prepared.

Further detailed study will be required by the CAISO, CPUC and municipal utility boards before permits can be issued. A cooperative transmission planning approach which actively engages a broad range of stakeholders provides the best assurance that issues of concern to the public and a broad range of stakeholders will be adequately addressed in transmission plans while also assuring that grid reliability and operability requirements are satisfied. Although CTPG is not obligated to rely on RETI input, cooperative agreement between the two on planning assumptions and scenarios is likely to result in conceptual transmission plans that have maximum support and minimum controversy.