Comments of SDG&E on the California Renewable Energy Transmission Initiative Phase 1B Draft Report

SDG&E appreciates the opportunity to comment on the California Renewable Energy Transmission Initiative (RETI) Phase 1B Draft Report ("Draft Report"). SDG&E's initial comments are as follows:

SDG&E is in General Agreement with Most of the Draft Report's Findings for the State of California and Northern Baja California, Mexico

On November 5, 2008 RETI publicly released the draft Phase 1B economic and environmental ranking report. SDG&E believes the report has correctly identified the Imperial Valley/northern Baja California, Mexico area as containing significant amounts of highly economic renewable resource development potential. While the identification and ranking of renewable energy zones, resources areas and discrete renewable projects will help California to achieve its renewable energy goals, it is important for the RETI process to ensure that any potential transmission plans align with locations where the developers are actually submitting procurement bids.

Data and Excel Spreadsheets Underlying the Economic Rankings Should be Made Available

The Draft Report provides an economic ranking of Competitive Renewable Energy Zones (CREZs) based on the weighted average levelized net costs of all renewable "projects" within each CREZ. The levelized net costs for each project include a levelized transmission cost.

According to the Draft Report the levelized transmission costs for each project account for the Available Transmission Capacity (ATC) of the existing grid.[1] Where there is no ATC, assumptions were made as to what new transmission would be needed. (section 3.5.2, "California Transmission": "RETI utilized the existing transmission system to the extent it has available capacity, then added incremental transmission to meet capacity requirements.")

Other than providing the bottom-line levelized cost of transmission on a $/MWh basis for each project in a CREZ, there is no detailed information provided. The report states that the transmission "schema was…analyzed in Excel to develop costs and allocated transmission costs for each project." (section 3.5.1., "transmission Modeling Tools") The Excel spreadsheet and the other detailed information should be made available to stakeholders in connection with the public release of the draft report.

SDG&E Does Not Use "ATC" in its Transmission Ranking Cost Report (TRCR)

The Draft Report states that in connection with the studies conducted for the TRCR, "SDG&E defines ATC at a 'cluster' level". SDG&E does not use the concept of ATC in its studies because the CAISO's transmission access protocols do not allow parties to reserve grid transfer capability within the CAISO control area. Instead, the studies conducted for the TRCR identify possible transmission upgrades for a specific set of system conditions which roughly correspond to the methodology used by the CAISO to

[1] SDG&E understands ATC to be the difference between Total Transfer Capability (TTC) and already committed transfer capability. The RETI report does not explain how, on the CAISO grid, ATC could be any different than TTC since the CAISO's transmission access protocols do not allow entities to reserve transfer capability.

establish the deliverability of resources for purposes of counting towards a Load Serving Entity's (LSE's) Resource Adequacy (RA) requirements.

SDG&E suggests that the draft Phase 1B economic/environmental ranking report include a discussion that clarifies whether, and if so how, the Draft Report's assumptions regarding use of the existing transmission grid relate to the transmission costs that are included for each of the renewable projects listed in the report. This is particularly important for wind and solar resources whose qualifying capacity for RA counting purposes is a fraction of installed capacity.

Data is Needed to Support the Assumption in the Draft Report that Little Existing Transfer Capability is Available to Deliver Energy to California

The Draft Report states that "anecdotal evidence suggests there is little bulk power transfer capability for exporting power in the West, and that most renewable energy will require incremental transmission capacity to deliver energy to California." (section 3.5.3) With respect to renewable resources in British Columbia; Washington; and Oregon the Draft Report indicates "there is…currently little or no available transmission to deliver energy to California." (section 3.5.3) To deliver renewable resources from Arizona it was assumed that new transmission would be built "on a route following the proposed Devers-Palo Verde 2 line", i.e., the Draft Report is assuming that even with the addition of Devers-Palo Verde 2, transfer capability between Palo Verde and the southern California load centers will not be available for renewable energy sources located in Arizona. (section 3.5.4)

The Draft Report should include actual data supporting the "anecdotal evidence" and any other statements indicating existing transfer capability is not available to support the delivery of renewable energy to California.

Support is Needed for the 2500 MW Limitation on the Ability to Import Renewable Resources from Southern Nevada

The Draft Report indicates that renewable resources located in southern Nevada are "subject to a transfer limit of 2,500 MW." (section 3.5.3, "Southern Nevada") There is no explanation of the basis of this limit. The existing import capability from southern Nevada is 6637 MW. (see the rating for the Northern System component of the West Of River (WOR) path rating)

The Failure to Account for the Displacement of Existing Fossil-Fired Generation May Skew the Economic Ranking of the Various CREZs

As noted above, in determining the levelized transmission costs for each renewable "project" the RETI Phase 1B analysis include some account of the ATC of the existing transmission system. However, the Draft Report includes no estimate or consideration of how the ATC of key portions of the WECC grid may change as significant increases in renewable energy production displaces the output of existing fossil-fired resources. Depending on where this displacement takes place, and the magnitude of such displacement, there may be more ATC in some locations and less in others. This has potentially significant implications for the new transmission that will be proposed in connection with RETI's Phase 2 transmission analysis.

RETI's Phase 2 will develop conceptual transmission plans to access the highest ranked CREZs. SDG&E understands that these conceptual transmission plans will be based on technical powerflow analysis that necessarily balances load and generation across the WECC. This balancing process will require that assumptions be made regarding the displacement of fossil-fired generation by renewable resources. Phase 2 may therefore implicitly address the question of how ATC on different parts of the WECC grid may change in response to a significant increase in renewable energy production.

The powerflow analysis will pinpoint locations on the existing grid where overloads are possible, and form the basis for identifying transmission upgrades that may be economically justified. The cost of these upgrades should be compared against the transmission costs used in the Phase 1B economic/environmental

ranking report to determine whether use of the transmission costs identified in Phase 2 would change the ranking of the various priority CREZs as estimated in Phase 1B.

Comments by a Stakeholder that As Much As 20,000 MW of Highly Economic Wind Development Potential Exists in Northern Baja California, Mexico Should be Explored

The RETI Stakeholder Steering Committee (SSC) held a conference call on November 12, 2008 to take public comment on the draft Phase 1B economic/environmental ranking report. One stakeholder apparently familiar with wind resources in Mexico indicated that there is 60,000 MW of wind resource capacity in northern Baja California, Mexico. This stakeholder indicated that factoring in possible environmental constraints, there would still be 20,000 MW of highly economic wind development potential remaining. This amount considerably exceeds the 5000 MW of wind identified in the Draft Report. (see Table 4-15)

Considering, that the Baja California Norte CREZ was determined to be highly economic, and considering that the Sunrise Powerlink and existing Southwest Powerlink each have thermal transfer capabilities in excess of 2000 MW, SDG&E recommends that RETI set a specific schedule for evaluating the stakeholder's assertion that there is a much larger amount of economic wind development potential in northern Baja California, Mexico than is recognized currently in the Draft Report.[2]

[2] This is consistent with the Draft Report's observation that "wind resources in Mexico look particularly promising, and more study is recommended to refine the economic estimates and the environmental factors." (section 5.5)