

SDGE made comments regarding CAISO's Draft Study Plan on 02/21/2012. SDG&E noticed some comments were taken into account on the 02/28 stakeholder meeting while others are outstanding. Below list the outstanding items as of today:

- 1) On Draft Study Plan Page 6: Table 2-1: SGE&E recommends that CAISO add "one-on-one discussions/review of preliminary findings and/or mitigations in mid-cycle of the study". These may be either conference calls or face to face meetings, but it would be helpful to review results mid-course instead of waiting until the end. (Not included in stakeholder meeting presentation "Study Plan Overview& Reliability Assessment" Slide 3: Schedule and Milestones)
- 2) On Draft Study Plan Page 10-11: Regarding the resources close to ISO BAA that can claim RA credit, please clarify study methodologies and provide a link to the document. Also, we need clarification to the paragraph: "...This particular sub-objective requires a different study approach than that required for the previous sub-objective..." (Not discussed in Stakeholder Meeting)
- 3) On Draft Study Plan Page 16: Please add minimum load cases (approximately 30-35% of peak load) to be studied for the whole system, or Northern California/Southern California areas. (Not included in stakeholder meeting presentation "Study Plan Overview& Reliability Assessment" Slide 15: Study Scenarios; however, CAISO staff is considering studying two minimum load cases: one for short term study and another for long term.)
- 4) On Draft Study Plan Page 19: Based on our previous conversations with the CAISO, SDG&E is going to use the CAISO renewable base case for the 2022 year cases. CAISO will send SDG&E a confirmation about the WECC case which CAISO used for their BASE Case renewable study. (Pending CAISO response)
- 5) On Draft Study Plan Page 19, CAISO requires that only generators in Level 1/Under construction to be modeled. On page 20, however, indicating "...modeling renewable generation for 2013 through 2017, CPUC's discounted core and ISO's interconnection agreement status will be utilized as criteria for modeling specific generation". Please clarify the discrepancy of modeling criteria. (Not discussed in Stakeholder Meeting)
- 6) Anticipated fossil generation (Product 2) should be studied as a sensitivity case for part of the OTC and renewable integration studies (similar to what was done in the 2011/2012 TPP cycle). (Not discussed in Stakeholder Meeting; Not included in stakeholder meeting presentation "Study Plan Overview& Reliability Assessment" Slide 22:New Thermal Generation)
- 7) On Draft Study Plan Page 26: Table 4-5 shows additional caps at Bay Boulevard in 2012 but this sub is not scheduled for completion until 2014. Also, need to modify the title of the Table 4-5 to "Key capacitors" so that the small capacitors in SDG&E's east county can be excluded from this table. (Not discussed in Stakeholder Meeting)

- 8) On Draft Study Plan Page 29 Table 4-8, since the table is to list “Key” SPS, the 69kV SPS should be removed from the list. (Not discussed in Stakeholder Meeting)
- 9) On Draft Study Plan Page 33: “...For the subsequent study years a power factor of 0.990 to 0.992 will be used”, should be just 0.992. (Not discussed in Stakeholder Meeting)
- 10) On Draft Study Plan Page 34: LGIP Network Upgrade Criteria for TPP Assessment section. SDG&E recommends that CAISO include wording to clarify that any projects identified as delivery network upgrades in the GIP process are not precluded from being considered as reliability projects. (Not discussed in Stakeholder Meeting)

Additionally, SDG&E noted following items from 02/28 Stakeholder Meeting and presentation materials:

- 11) On “Study Plan Overview& Reliability Assessment” Slide 13: Base Case Assumptions, for the reliability studies it was indicated that the transmission assumptions shall include “Transmission upgrades to interconnect new modeled generation”. It was not clear if this statement is referring to the LGIP reliability network upgrades only or the deliverability network upgrades also?
- 12) On “Study Plan Overview& Reliability Assessment” Slide 21: Generation Assumption, it was indicated that “Retired generation is modeled in appropriate study areas”; should be clarified as “Retired generation is modeled in appropriate study areas *until its expected retirement year*”.
- 13) On “Economic Planning Studies” Slide 3: it was indicated that the Production Cost Model will use “CAISO 2012/2013 transmission assumptions”. The question was raised in the stake holder meeting as to whether the statement meant “the same transmission assumptions CAISO intends to use during the 2012/2013 reliability planning cycle”, which would only include the projects approved by the 2011/2012 reliability planning cycle. CAISO answered that’s not the case: the economic modeling will include “transmission projects expected to be approved in the current 2012/2013 reliability planning cycle” and maybe even the “transmission projects identified through LGIP” process. Please provide clarification in the study plan: i) this is what’s going into the Economic Planning Model; ii) how this base model, which included transmission projects expected to be approved, impact the benefit/ disbenefit of other potential transmission projects that are being evaluated under the Economic Planning process.
- 14) It is our understanding that CAISO intends to use data from a couple of “stressed hours” from the GridView simulations as the base on which to build the reliability power flow cases. The snapshot of the renewable and fossil generation dispatches along with the system loads of these hours will be translated into the reliability load flow case. Please clarify in the study plan: i) how the “Stressed hours” were defined and selected; ii) how

the generation was adjusted to achieve the load/ resource balance, as the Production Cost Model, by definition, uses 1 in 2 forecasted load; while the reliability cases use 1 in 10 forecasted load. What additional generation is being dispatched in power flow cases: Fossil? Renewable? Or both?

- 15) It is our understanding that CAISO intends to make two series of peak-load cases for each year's reliability evaluation: one with high renewable dispatches and the other with low renewable dispatches. What is the targeted dispatch level for each scenario? When does CAISO expect to release the Capacity Factors to PTOs?
- 16) WECC is moving toward using "Dynamic Load Modeling" to better evaluate the system voltage issues. It was not mentioned in the study plan if (or when) CAISO intends to move in the same direction?
- 17) WECC board has approved the TPL-001-WECC-CRT-2 — System Performance Criterion which defines that: for two Adjacent Circuits with voltage level >300KV, if the circuits maintain Minimum separation (center-to-center) of 250 feet (with 3 mile total exemption), the simultaneous outage should not be categorized as a "Category C.5 event". Therefore, beginning 2012/2013 study cycle, the simultaneous N-2 outage of SWPL and SRPL should be categorized as "Category D" by definition, while N-1-1 of these two lines with system readjustment between each line outage should still be considered a Category C contingency.
- 18) On "2013/2013 ISO LCR studies" Slide 4: CAISO resolves performance criteria by statement "Any relevant contingency can be used if it results in a local constraint." However, the next-year time frame of the LCR studies does not allow much time for fine tuning of RA and/or development and implementation of other mitigation measures. SDG&E supports CAISO's view of performing long term LCR studies to identify procurement need, and encourage CAISO to use the outcomes of these studies as additional justification for wires alternatives to the non-wires options identified in reliability or other policy-driven studies.
- 19) For the transmission projects that can be effective wires alternatives to the non-wires options in term of meeting the LCR requirement, SDG&E encourages CAISO to develop an evaluation mechanism to quantify the "avoided cost of the incremental LCR requirement". The cost savings made available by such projects should be included as part of overall economic benefit(s) of the transmission project.