

May 13, 2011

CAISO Board of Governors

Re: CAISO 2010/2011 Transmission Plan - Proposed South Orange County Reliability Upgrade Project (SOCRUP)

At this point in time, Save the Foothill Coalition (STFC) and UCAN urge the CAISO to recategorize the proposed SOCRUP from a Category 1 to a Category 2 project. Until the issues raised below are addressed, there is no basis for concluding that the \$347.6 million SOCRUP is “necessary” to ensure compliance with NERC and CAISO planning standards, and no evidence that the proposed SOCRUP is preferable to other alternatives from either an economic or environmental perspective.<sup>1</sup> Additionally, unless the reasonableness of the forecast loads for SDG&E’s southern Orange County distribution service area can be validated through comparisons to historical peak loads, the contingency analysis performed by the CAISO staff cannot be relied upon to conclude that, absent the proposed SOCRUP, there will be unmitigated violations of NERC reliability criteria.

1. No explanation has been provided by the CAISO as to why the continued use of controlled load drop, in the event of N-2 or N-1-1 contingencies allowed under the WECC and NERC standards, on SDG&E’s southern Orange County transmission system is no longer feasible mitigation for ensuring the reliability of the system.<sup>2</sup>

In the May, 2011 *Revised Draft* of the CAISO’s 2010-2011 *Transmission Plan*, the CAISO explains that “The ISO standards do not recommend using SPS that looks at more than six contingencies causing more than four elements to get overloaded.” (page 207) Exactly what the CAISO means by this statement is not explained in the *Revised Draft*. Appendix A of the *Revised Draft* contains a listing of 39 different Category B and Category C contingencies that, in year 2020, result in overloads. No contingency event causes more than four elements to be overloaded so it would not appear that the CAISO’s concerns regarding the use of SPS are valid.<sup>3</sup>

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<sup>1</sup> To put this project in perspective, if the capital costs of the proposed SOCRUP were divided equally among the 120,000 electric customers in SDG&E’s southern Orange County distribution system, each customer would be responsible for \$2897. (\$347.6 million/120,000)

<sup>2</sup> The *Revised Draft* admits that “Some of these problems are existing ones and there are SPSs to address these issues.” (page 207)

2. The *Revised Draft* states that “Failure of certain components in this area under maintenance conditions can result in loss of entire South Orange County load,” and indicates that in years 2009-2010 there were “load at risk” notifications issued on 50 days.<sup>4</sup> (page 207) However, the fact that “load at risk” notifications were issued does not mean that any CAISO, WECC or NERC reliability standards were being violated. The maintenance challenges have existed for many years and service in the southern Orange County system—so far as is known—has met all reliability requirements. The CAISO has not established what circumstances have changed that would now make the prior maintenance procedures unacceptable. Spending over three hundred million dollars to make maintenance easier is not a sufficient justification.
3. CAISO staff have not exercised due diligence in verifying the validity of the load assumptions -- provided by the project proponent – used in the contingency analysis that, in part, are being relied on to support the need for the proposed SOCRUP. The CAISO’s response to stakeholder comments states that “although the ISO did not use the [historical load data] requested by STFC/UCAN to study SOCRUP, ISO planning engineers did independently evaluated the load forecast data in its multi-year study of this project.” Without historical load data there is no basis for stakeholders, and the ISO planning engineers, to determine that the forecast loads for particular substations are reasonable.<sup>5</sup>

STFC and UCAN have been unable to obtain historical peak loads for SDG&E’s southern Orange County distribution service area from either the CAISO or SDG&E. SDG&E refused to provide this data to STFC and UCAN. SDG&E indicated that they would not provide it until *after* the proposed SOCRUP received CAISO Board approval, and then not until SDG&E filed an application at the CPUC for approval to construct the project.<sup>6</sup> STFC and UCAN find this to be a troubling precedent because it effectively precludes stakeholders from

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<sup>3</sup> Only one contingency results in the overload of three elements, eight contingencies result in the overload of two elements, and the remaining thirty contingencies result in the overload of a single element.

<sup>5</sup> The CAISO’s response also states that stakeholders “can evaluate the load assumptions used in the studies for the 2009 and 2010 power flow cases through the year 2020 to verify the reasonableness of these assumptions, similar to the process that the ISO used.” But all of the substation load information contained in these power flow cases is *forecast* data. There is no *historical* substation load data in the power flow cases. Accordingly,

<sup>6</sup> SDG&E’s April 28, 2011 response to a stakeholder request for this historical peak load data was as follows: “At this time, due to the fact that this project is still under study at the CAISO and has not received ISO board approval, we are sorry to inform you that we will not be able to provide the requested data at this stage of the assessment process, and are not going to release any data beyond what is currently available in the WECC powerflow cases. If SOCRUP receives CAISO approval, we will be filing an application at the CPUC. That would be the appropriate time for you to request this kind of detailed technical data as an intervener in the CPCN.”

reviewing the reasonableness of local area load growth assumptions during the CAISO's annual transmission planning process (which is supposed to be open and transparent). Local area load growth assumptions are key inputs used by the CAISO to determine appropriate mitigation for reliability concerns, as well as the timing of that mitigation.

4. The *Revised Draft* indicates that the CAISO conducted analysis to alleviate concerns "caused by a single source supplying the entire southern Orange County load." (page 208) The claim that SDG&E's southern Orange County system is supplied by a "single source" is simply wrong. There are three 230 kV ties into Talega substation, four 138 kV lines out of Talega substation, two 230kV buses separated by breakers within Talega substation, two 138 kV buses separated by breakers within Talega substation, and multiple 230/138 kV transformers within Talega substation.
5. Reviewing the data in revised Appendix A shows that, even assuming the projected loads are reasonable, 27 of the 39 reported contingencies results in overloads at the 1% level. Of the 39 overloads, only one is a Category B (N-1) contingency for which controlled load drop is not permitted mitigation.<sup>7</sup> It doesn't make sense to approve a project now with a June, 2015 in-service date when most of the overloads don't appear until 2020, and then only at the 1% level. The prudent course of action would be to defer a decision now, and revisit the need for the project at a later date when more current load information is available.
6. The *Revised Draft* reports that the peak load in SDG&E's southern Orange County distribution service area is forecast to be 523 MW in year 2020. This is different than the 550 MW peak load forecast that was reported in the previous draft of the 2010-2011 transmission plan. While the forecast peak load appears to have declined by about 5%, none of the reported overloads in Appendix A appear to have changed. One would expect that a lower load forecast would result in fewer and lower overloads. Perhaps this is just a reporting glitch, but given the amount of money at issue, it is worth checking.
7. There is no evidence that in considering alternatives to the proposed SOCRUP, the CAISO evaluated any non-transmission solutions, or seriously assessed the option of continuing to use SPS to mitigate identified reliability criteria violations. Non-transmission solutions include expanding energy efficiency programs beyond the levels embedded in the load forecast, targeted demand side management programs, programs to increase the level of rooftop solar photovoltaic beyond the amounts embedded in the load forecast, and even new conventional generation such as, strategically located combustion turbines. At \$

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<sup>7</sup> The remainders are Category C (N-2 or N-1-1) and controlled load drop is permitted mitigation. Of the 12 documented contingencies that result in overloads of 2% or more, most appear to be known Category C overloads that have existed for many years and have been managed--successfully--with SPS.

1240/kW<sup>8</sup> a new 50 MW gas turbine would cost approximately \$62 million to build. Two 50 MW gas turbines (expected to not run much) would cost about \$124 million. In contrast, the proposed SOCRUP is estimated to cost \$347.6 million. It's difficult to understand why the CAISO did not consider these alternatives, especially when the CAISO tariff specifically requires the CAISO to consider non-transmission alternatives.<sup>9</sup>

STFC and UCAN recommend that the CAISO Board defer any decision on the proposed SOCRUP until CAISO staff adequately addresses the issues raised in this letter. Given that SDG&E's southern Orange County transmission system has been operated in conformance with all applicable reliability criteria for many years, considering that no evidence has been provided to show why the existing operating procedures for ensuring the reliability of this system are no longer adequate, and with the understanding that the first identified reliability criteria violation for which controlled load drop is not permissible mitigation is not projected to occur until 2020, the CAISO Board has ample time to reconsider CAISO management's recommendation to approve the proposed SOCRUP.

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<sup>8</sup> The \$1240/kW figure is calculated from Exhibit SD-142 in the Sunrise Powerlink proceeding.

<sup>9</sup> CAISO tariff section 24.4.6.2 provides that the CAISO "shall consider lower cost alternatives to the construction of transmission additions or upgrades...such as...Demand-side management, Remedial Action Schemes, appropriate Generation, interruptible Loads..."