

**PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Conditional Application of SAN DIEGO GAS AND ELECTRIC COMPANY for a Certificate of Public Convenience and Necessity Authorizing the Construction of the Valley-Rainbow 500 kV Transmission Project	Application 01-03-036
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**OPENING BRIEF OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR**

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I. INTRODUCTION AND SUMMARY

In accordance with California Public Utilities Commission Rule 75, the California Independent System Operator Corporation (CA ISO) respectfully submits its opening brief in the above captioned case. In this phase of the proceeding, the California Public Utilities Commission (CPUC or Commission) is assessing the need for the Valley-Rainbow Transmission Project (Valley-Rainbow or the Project). See August 13, 2002 Assigned Commissioner's Ruling Establishing Category and Providing Scoping Memo in Compliance with Article 2.5, SB 960 Rules and Procedures. Assessment of alternatives and their relative reliability, economic, environmental, social and aesthetic merits, consistent with Public Utilities Section 1001 et. seq. and the Commission's California Environmental Quality Act (CEQA) process, will be addressed in a subsequent phase of the proceeding. Id.

The CA ISO considers that the need for a project such as Valley-Rainbow has been amply demonstrated. There has been considerable debate about the appropriate in-service date for the Project and whether other alternatives are appropriate, either to replace the Project or as measures to postpone the need for the Project until there is additional information about the conditions likely to prevail in the San Diego area. Further exploration of these issues, and the relative social, environmental and aesthetic impacts of alternatives, or staged strategies to meet the need for additional resources in San Diego, as well as the feasibility and advisability of such alternatives and strategies, can and should be addressed in the next phase of this proceeding. However, it is clear that if nothing is done, the reliability of electric service to San Diego citizens will be placed at risk within the next four to seven years. The CA ISO, as the entity responsible for the reliable operation of the transmission grid, urges the CPUC to determine, as the record

clearly indicates, that a project such as Valley-Rainbow is needed, and to proceed to the next phase of this proceeding to assess the relative merits of the feasible alternatives.

The CA ISO further notes that the economic assessments of Valley-Rainbow to date have neglected to address an important likely source of additional benefits to California consumers from such a project, a reduction of the ability of suppliers to exercise market power. These benefits can and should be considered by the Commission in assessing the best alternative to meet San Diego's long-term reliability needs.

Finally, the CA ISO avers that the CPUC should give due deference to the CA ISO's determination that a project such as Valley-Rainbow is needed, as the CA ISO is the entity with responsibility for the reliability of the transmission grid. The project has received considerable attention from the CA ISO for the past year and a half. The CA ISO stands ready to participate actively in a subsequent phase of this proceeding, and to work in such phase with the CPUC and other parties to identify the alternative that meets the need for new resources in San Diego in a manner that optimally balances reliability, feasibility, cost and the environmental, social and aesthetic impacts on consumers.

II. THE RELIABILITY NEED FOR A PROJECT SUCH AS VALLEY-RAINBOW HAS BEEN AMPLY DEMONSTRATED.

The reliability need for a project such as Valley Rainbow has been amply demonstrated, measured against CA ISO Planning Standards that reflect standard practice and California's strong policy commitment to reliability. The CA ISO has demonstrated that while superficially attractive, it is not viable to do nothing and expect that supplies through or from Mexico will eliminate the reliability need in San Diego. Once this possibility is eliminated, the record supports a need for a project such as Valley-Rainbow by 2006, which becomes increasingly

certain by 2007-9. While there is of course some uncertainty associated with the actual in-service date, some of the uncertainty has begun to settle. There are initial indications that SDG&E accurately forecast a bounce back in load, following the unprecedented reduction that took place in the last eighteen months due to the electricity crisis and the down turn in the economy. As to the large amount of proposed new generation in San Diego, seven projects have been built, many have been cancelled and only two possible new projects remain. While there is some uncertainty regarding when the existing antiquated generation in San Diego will retire, the CPUC has already found in a recent case, that retirements are a more realistic assumption than no retirements particularly in the face of new generation coming on-line. With these factors settling out, it can be stated with reasonable confidence that additional resources are needed in San Diego within a time frame that demands further consideration of the available alternatives in a subsequent phase of this proceeding. A failure to proceed would result in a de-facto decision for on-going short term fixes without a thorough vetting of the reliability, cost, environmental, social and aesthetic tradeoffs of this choice.

A. The CA ISO Grid Planning Standards and How They Should be Applied.

Ultimately, there was little disagreement among the witnesses that the CA ISO Grid Planning Standards should be used to assess whether a project such as Valley-Rainbow is needed to maintain reliability in San Diego although there was some discussion of how the standards should be applied. In accordance with state law and standard practice, the CA ISO Grid Planning Standards should be the measure for determining whether a project such as Valley Rainbow is needed. Moreover, because San Diego is a large load pocket, it would be inappropriate to address potential G-1/L-1 contingencies through dropping load. Finally, there is

no evidence on the record to support a conclusion that applying probabilistic principles, dropping load would be a cost effective response to the reliability need.

California Public Utilities Code section 345 provides that the CA ISO "shall ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Electric Reliability Council." The CA ISO Planning Standards "incorporate the Western Systems Coordinating Council (WSCC) Reliability Criteria, the North American Electric Reliability Council (NERC) Planning Standards, and local area reliability criteria." Exh. 100, Testimony of Jeffrey C. Miller and Keith Casey on Behalf of the California Independent System Operator (CA ISO Opening Testimony), at 17: 12-15. (The Western Systems Coordinating Council has been renamed and will be referred to throughout the rest of this brief as the Western Electricity Coordinating Council or WECC.) As California Public Utilities Code section 345 explicitly allows, the CA ISO Planning Standards are more stringent in some aspects than WECC and NERC standards. Nonetheless, the standards have been discussed at length in a CA ISO stakeholder process and have been adopted by the CA ISO Governing Board for use across the CA ISO Controlled Grid. Exh. 101, Rebuttal Testimony of Jeffrey C. Miller and Keith Casey on Behalf of the California Independent System Operator (CA ISO Rebuttal Testimony), at 3: 3-5. The CA ISO believes that "application of the single generator out and single line out standard" that is set forth in the CA ISO Planning Standards "is necessary to provide the San Diego area with acceptable system reliability" and that the "San Diego area should not have substandard reliability". Id. at 3: 24-28.

Ultimately, all reliability witnesses agreed that the CA ISO Planning Standards should be used to assess the reliability need for a project such as Valley Rainbow. Notwithstanding the

opposition of Save Southwest Riverside County, the City of Temecula and the Pechanga Development Corporation (Joint Opponents) to Valley-Rainbow, their reliability witness, Mr. Schmus, acknowledged that "generally accepted probabilistic standards do not yet exist in the industry . . . Until probabilistic reliability criteria are adopted, the traditional reliability criteria (e.g. L-1/G-1) continue to apply." Exh. 300, Joint Testimony of Save Southwest Riverside County, the City of Temecula and the Pechanga Development Corporation (Joint Opponents Opening Testimony), at II-5, footnote 3. Moreover, while initially disparaging what they termed as "strict adherence to planning criteria" and highlighting the relative rarity of transmission related outages, Exh. 201A, Errata Corrected Version: Assessment of the Valley-Rainbow Transmission Project (ORA Report), at 13-14, ORA reliability witnesses ultimately clarified that they are not recommending that the CPUC should disregard the CA ISO Planning Standards. Tr. (Weatherwax) at 1151: 23; see also tr. (Clark) at 1132: 21-22.

The CA ISO agrees with Mr. Schmus that until probabilistic reliability criteria are adopted, the traditional deterministic criteria continue to apply. More importantly, state law requires the CA ISO to ensure that at a minimum, WECC and NERC planning standards are met. California Public Utilities Code section 345. Since the Legislature, which made the CA ISO responsible for reliable operation of the transmission grid, determined that the WECC and NERC planning standards should be minimum standards for the CA ISO, it is reasonable to surmise that the Legislature similarly intended the CPUC to view WECC and NERC planning standards as minimum standards in undertaking its responsibilities. (Further, as will be addressed in section IV, the CPUC should give CA ISO determinations of need for transmission facilities, in accordance with its standards, due deference.)

The current version of the CA ISO Planning Standards were introduced as Exhibit 205. Tr. (Cooke) at 867: 9-12. There is no disagreement that the CA ISO Planning Standards require that the system operate reliably using a combined line and generator outage standard (G-1/L-1). Exh. 205, California ISO Planning Standards, February 7, 2002 (CA ISO Planning Standards), at 3. There was some discussion, however, of whether the CA ISO Planning Standards allow for firm load interruptions to address a G-1/L-1 contingency and how probabilistic assessments relate to this question.

Regarding this point, the CA ISO Planning Standards provide in section II, 4, A:

Involuntary load interruptions are not an acceptable consequence in planning for CA ISO Planning Standard Category B disturbances (either single contingencies or the combined contingency of a single generator and a single transmission line), unless the CA ISO Board decides that the capital project alternative is clearly not cost effective (after considering all costs and all benefits). In any case, planned load interruptions for Category B disturbances are to be limited to radial and local network customers as specified in the NERC Planning Standards.

Exh. 205, CA ISO Planning Standards, at 3. Section IV of the CA ISO Planning Standards describes the process and information required to allow for use of planned load interruptions to meet the G-1/L-1 standard. Essentially, Section IV sets forth the probabilistic assessment and related cost information that should be submitted to the CA ISO Governing Board in order to support use of planned load interruptions to meet the G-1/L-1 standard.

On the stand, Mr. Miller explained that, although the standards do not specifically preclude use of planned load interruptions for an area like San Diego, planned load interruptions were intended primarily for use in the case of radial systems fed by a single line that might require an entire second line to meet the G-1/L-1 standard. Tr. (Miller) at 869:7-9. Mr. Miller explained that planned load interruptions were not "envisioned to be used on the scale of something like the Valley-Rainbow Project". Id. Mr. Korinek confirmed that SDG&E has

similarly interpreted use of planned load interruptions to be inappropriate in the case of Valley-Rainbow where a significant level of load could be affected. Tr. (Korinek) at 526: 21-26.

Further, irrespective of whether planned load interruptions would, as a general proposition, be appropriate in the case of San Diego or not, no formal deterministic study was undertaken in the case of San Diego to support use of load interruptions in lieu of putting into place the facilities need to meet the G-1/L-1 standard. As Mr. Miller explained, while the G-1/L-1 standard is deterministic, it is not intended to address solely the most serious outages. Rather "[t]here could be a large number of potential combinations of outages" but it is hoped that "most of the possible combinations of outage that occur will not be more severe than the single line out and the single generator out" assumed in the G-1/L-1 deterministic assessment. Tr. (Miller) at 865: 27-28; 866: 1-3. Thus, to undertake a probabilistic assessment that would support use of load interruptions in lieu of an upgrade, it is necessary "to consider all the potential combinations of outages that could lead to some load interruption", a "substantial undertaking". Tr. (Miller) at 866: 6-9. In fact, Mr. Miller indicated that "there is a major question about whether the tools and the data are available to do that," tr. (Miller) at 866: 10-11, and that he does not "know of any entity that – at least in the United States that plans a system based upon a probabilistic approach". Tr. (Miller) at 866: 15-17.

No adequate probabilistic study has been presented to the CA ISO or to the CPUC supporting use of load dropping. SDG&E did not present such a study to the CA ISO or the CPUC. Tr. (Korinek) 527: 3-6. Although ORA witnesses argued that such a study would not be very complex, see exh. 201A, ORA Report, at 29 and an ORA witness "took a crack" at undertaking a probabilistic study, tr. (Stephenson) at 1092: 25, no such study was presented as evidence, tr. (Stephenson) at 1092: 28. The rationale given for not presenting the study was that

"it was not sufficiently well developed to go forward and to be published in a report in which other people's name would appear". Tr. (Weatherwax) at 110:14-16. This supports the view that undertaking a credible study is not such a simple undertaking. Moreover, ORA's back of the envelope calculations, see. e.g. exh. 201A, ORA Report at 27, do not constitute an adequate substitute for a proper study since they do not consider a full range of credible contingencies.

It is illustrative, that the one more thorough attempt to undertake a probabilistic assessment of reliability in San Diego supports a conclusion that there are important reliability risks facing San Diego that merit decisive action to increase in area facilities. In its 2002-2012 Electricity Outlook Report, the CEC undertook a probabilistic assessment of the reliability of electricity service in 2003, California and in particular California areas. While the CEC found that for most of California the probability of adequate reliability is very good, it identified higher risks of resource deficiencies in San Diego and the Bay Area. Ref. D, CEC 2002-2012 Electricity Outlook Report, at 45. The CEC found that San Diego faces a seven percent supply deficiency risk in 2003 in a moderate base case that assumes moderate persistence of demand reductions, historic generator outage rates, and relatively optimistic assumptions about power plant additions . Id. at 45-49. This risk increases to 14-71% if more pessimistic assumptions are made about the persistence of demand reductions, outage rates, or new plant construction delays. Id. Thus, the one full probabilistic study in the record shows that San Diego reliability is at risk by 2003 even in a moderate scenario.

In sum, the reliability need for a project such as Valley-Rainbow should be assessed against CA ISO Planning Standards. Moreover, use of planned load interruptions have not been demonstrated to be an acceptable means of meeting the G-1/L-1 standard given either the nature

of the project, or the presentation of an adequate probabilistic assessment indicating that use of planned load interruptions are appropriate in this case.

B. Measured Against CA ISO Planning Standards, the Need for a Project such as Valley Rainbow Arises in the Most Reasonable Scenario in 2006 and Becomes Increasingly Likely Thereafter.

In concept, it is simple to determine whether there is a need for a project such as Valley-Rainbow, in accordance with CA ISO Planning Standards. The most critical generation and transmission outages are identified, and the system is assessed to determine whether it is capable of meeting projected demand in San Diego given projected available supplies including generation and imports. See e.g., exh. 100, CA ISO Opening Testimony at 8-9. While the need for a project such as Valley-Rainbow has evolved during the year and a half that the need was considered by the CA ISO, some of the uncertainty associated with the need for a project is beginning to settle. Having determined that it is infeasible to rely on through-flow or exports from Mexico to meet San Diego's needs, the most reasonably likely scenario supports a need for a project such as Valley Rainbow beginning in 2006 and becoming increasingly likely thereafter. In this context, the CA ISO considers that it is imperative to proceed to the next phase of this proceeding to identify the approach that best meets the need, considering strategic issues, as well as the relative reliability, economic, environmental, social and aesthetic merits of available alternatives.

1. Identifying the relevant L-1 and G-1 events.

There appears to be little dispute that an outage of the Imperial Valley-Miguel line (SWPL) is the most serious L-1 contingency. Moreover, there appears to be little debate that, if Otay Mesa is not considered, the most serious G-1 contingency, is Encina 5 (339 MW). See e.g. Exh. 103, CA ISO Data Response to ORA 2.7, A. However, there is considerable debate about

whether and how Otay Mesa should be considered in determining the need for a project such as Valley Rainbow. As discussed in sub-section 4 below, the CA ISO considers that some uncertainty remains as to whether Otay Mesa will be constructed¹. Moreover, even if the project does come on line, at this time there is evidence to suggest that the project would be subject to a single point of failure, unless Calpine agrees to reconfigure the plant. Thus, it cannot yet be determined whether with Otay Mesa in existence, Encina 5 will remain the G-1, or Otay Mesa at 510 MW would become the G-1.

There is no certainty about whether if built, Otay Mesa would be subject to a single point of failure and become the most serious G-1 contingency. Tr. (Miller) at 853: 20-21. If Otay Mesa is not built, or if it is built but is not subject to a single point of failure, Encina 5 would remain the single largest G-1 contingency. See June 14, 2002, Energy Division "Summary of Workshop to Discuss Valley-Rainbow Interconnection Technical Issues" (Workshop Report), at 2.

Otay Mesa, if built, will be a combined cycle plant. Tr. (Miller) at 854:2-3; exh. 100, CA ISO Opening Testimony at 10: 25-26. Given how combined cycle plants are configured, there are disturbances that could cause the entire plant to be forced out of service. Tr. (Miller) at 854: 20-28; 855: 1-4. Although, if only one gas turbine were forced out of service, the steam turbine and remaining gas turbine could continue to operate, tr. (Miller) at 856: 9-17, if the condenser ceased to operate the gas turbines would not be able to operate unless bypass stacks

¹ The CA ISO considers that for purposes of undertaking economic assessments, it is appropriate to consider a range of plausible scenarios, including scenarios that include the Otay Mesa plant. As Mr. Miller explained, in reliability assessments where an error could result in the need to interrupt load, decisions should be made based on the ability of the system to meet credible severe contingencies. Tr. (Miller) at 897: 22-28. Economic assessments, however, should review a range a reasonable scenarios. Tr. (Miller) at 898: 13-19; (Casey) at 898: 21-28. The CA ISO certainly agrees that the eventual construction of Otay Mesa is a distinct possibility.

are installed, tr. (Miller) at 857: 9²; and there are serious environmental considerations associated with use of by-pass stacks, tr. (Miller) at 856: 27-28; 857: 1-3. In fact, as is reflected in the June 14, 2002, Energy Division "Summary of Workshop to Discuss Valley-Rainbow Interconnection Technical Issues" (Workshop Report), by-pass stacks cause violations of emission standards, and accordingly the CEC has not permitted a by-pass stack in California. Workshop Report at 2.

The CA ISO has offered to have an open stakeholder process to address whether Otay-Mesa should be deemed a single point of failure. Moreover, given the uncertainty regarding the plant configuration, the CA ISO agreed during the Workshop that scenarios should be considered with the Otay Mesa plant as the largest G-1 contingency, and Encina 5 as the largest G-1 contingency.³ Workshop Report at 2.

2. Neither Through-Flow nor Exports From Mexico Are Viable Alternatives to Eliminate the Reliability Need in San Diego.

Imports are important considerations for determining a reliability need. The extent to which supplies from or through Mexico could eliminate the reliability need in San Diego was one of the most aggressively litigated issues during this phase. After careful review of the issue, the CA ISO has concluded that it is not reasonable to rely on supplies from Mexico during an outage of the SWPL. Accordingly, supplies from or through Mexico do not eliminate the reliability need in San Diego.

² As noted in the CA ISO's comments on the draft Workshop Report, the CA ISO disagrees that gas turbines can operate without a bypass stack during a steam turbine outage. This conclusion is also inconsistent with the testimony of Mr. Miller, the only witness to testify on the matter.

³ The CA ISO notes, however, that the CPUC found in a recent decision assessing planning undertaken for the SDG&E and Southern California Edison service areas, that more aggressive outage assumptions than those used in the CA ISO planning standards was more consistent with the record than use of the CA ISO's G-1 standard. See D.01-10-070 at 33, Finding of Fact 8. Use of 510 MW as the G-1 in San Diego is more consistent with this decision than use of 329 MW.

In their testimony, the Joint Opponents and ORA argued that in assessing the need for Valley-Rainbow, SDG&E neglected to consider potential supply over Path 45, given completion on November 1, 2001, of the Path 45 improvement project and the resulting changes to the Path 45 rating. The Joint Opponents contended that at least 410 MW could be expected to be available over Path 45. Exh. 306, Errata to March 15, 2002 Joint Testimony of Save Southwest Riverside County, the City of Temecula, and the Pechanga Development Corporation (Errata Joint Opponent Testimony) at II-14: 5-21. ORA opined that 500 MW could reliably be delivered from Mexico. Exh. 201A, ORA Report at 33.

In response to this testimony, the CA ISO undertook a study to assess the likely availability of supplies from Mexico during an outage of the SWPL. The study assessed the extent to which supplies would be available from Mexico from two sources: through-flow and exports. Exh. 102, Surrebuttal Testimony of Jeffrey C. Miller on Behalf of the CA ISO (CA ISO Surrebuttal Testimony) at 2: 2-7. This study was labeled an interim report because at the time it was initially filed, the CA ISO had had limited opportunities to obtain input from SDG&E and Comisión Federal de Electricidad (CFE), and the study was necessarily undertaken in a short period of time. Exh. 102, May 3, 2002, Assessment of the Ability of the CFE System to Support the San Diego Area During Outages of the Southwest Power Link (CA ISO Interim Mexico Report) at 2. Input from SDG&E and CFE was obtained and further assessments were undertaken that confirmed the preliminary findings set forth in the CA ISO Interim Mexico Report. The results are set forth in a final report attached to the CA ISO comments on the draft Workshop Report. The final report is entitled, June 6, 2002, Assessment of the Ability of the CFE System to Support the San Diego Area During Outages of the Southwest Power Link (CA ISO Final Mexico Report).

Through-flow consists of power, initially flowing to San Diego over the SWPL, that could reach San Diego through the CFE system in the event of an outage of the SWPL. See exh. 102, CA ISO Interim Mexico Report at 3. This path, which is parallel to SWPL, would be Imperial Valley to La Rosita, La Rosita to Tijuana, and Tijuana to Miguel. See Exh. 102, CA ISO Interim Mexico Report at Figure 1. Exports consist of power from resources located in the CFE system available for sale to serve CA ISO load. See exh. 102, CA ISO Interim Mexico Report at 10.

The study undertaken by the CA ISO indicated that given the completion of new generation in Mexico that is currently under construction, there would be no CFE through-flow during an outage of SWPL nearly half of the time. Exh. 102, CA ISO Surrebuttal Testimony at 2: 10-12. The study used a 2003 Heavy Summer Base Case and historical system data, assumed that transmission system upgrades that are currently planned would be in place, and assumed that new generation projects currently under construction in the US/Mexico border area would be in place. Exh. 102, CA ISO Interim Mexico Report at 4. Using these assumptions, the study first assessed where power would flow in the event of an outage of the SWPL (Line Outage and Generation Shift Response Factors), exh. 102, CA ISO Interim Mexico Report at 5-6, and based on these results identified the La Rosita – Rumorosa line as the most critical limit among the transmission links in the CFE parallel path to SWPL, exh. 102, CA ISO Interim Mexico Study at 6.

Next, based on actual hourly flows between January 1, 2000 and April 1, 2002 and the conclusions obtained about where power would flow during an outage of the SWPL, the CA ISO assessed the level of power that would flow over the La Rosita – Rumorosa line during an outage of SWPL, with and without the new generation under construction at La Rosita, the 750 MW La

Rosita Power Plant. In Figure 3 of the CA ISO Interim Mexico Report, the CA ISO arranged the results in decreasing order and arrayed them in relation to percentage of intervals in which the line was loaded above a particular MW level. See exh. 102, CA ISO Interim Mexico Report at Figure 3. Figure 3 illustrates that during an outage of SWPL, if the La Rosita Power Plant is assumed to be on line, a reasonable assumption since the plant is under construction at this time, tr. (Miller) at 915:1-8, flows over the La Rosita – Rumorosa line would exceed the normal rating of the line roughly 50% of the time. Exh. 102, CA ISO Interim Mexico Report at Figure 3.

These results should be deemed conservative because the study reduced generation at Pittsburg to offset the increase in generation from La Rosita Power Plant; whereas a more likely scenario would be that the increase of generation from La Rosita Power Plant would be offset by an increase in CFE load or decrease in CFE generation, and in this scenario the flows over La Rosita – Rumorosa could be expected to be higher. Tr. (Miller) at 905-6.⁴

The CA ISO considers that through-flow cannot be relied on in cases that result in an overload of the La Rosita – Rumorosa line because in such cases it is probable that to protect the line CFE would open La Rosita to Imperial Valley. "To protect [the La Rosita – Rumorosa] line against thermal overload, CFE currently has a special protection scheme (SPS) that will trip the Imperial Valley – La Rosita 230 kV lines following the outage of the SWPL if the La Rosita - Rumorosa line overloads. Of course the loss of the Imperial Valley-La Rosita lines would eliminate the transmission path through Mexico and through-flow would then be zero." Exh. 102, CA ISO Interim Mexico Report at 6.

⁴ In fact, in its final study, the CA ISO did assess the results using a change in load or generation at the substation near Tijuana (Presidente Juarez) and the % of time when the flows exceeded the La Rosita – Rumorosa normal rating increased to close to 70% of the time. See CA ISO Final Mexico Report at figure 4. As a further sensitivity, the CA ISO assessed the results using a change in load or generation at Presidente Juarez and adding the Otay Mesa power plant. In this scenario, the % of time when the flows exceeded the La Rosita – Rumorosa normal rating were again close to 50% of the time (48.3% to be exact). See CA ISO Final Mexico Report at figure 8.

The CA ISO Interim Mexico Report also assessed the historical and likely future export capabilities from CFE to the CA ISO. Exh. 102, CA ISO Interim Mexico Report at 10. The CA ISO agrees with the testimony of the Joint Opponents that, with completion of the Path 45 improvement project, "the CFE transmission system is projected to be sufficient to export at least 400 MW to San Diego." See exh. 102, CA ISO Interim Mexico Report at 13; exh. 306, Errata Joint Opponent Testimony at II-14. However, the CA ISO considers that CFE cannot be relied on to make exports available during critical peak periods in the long term. First, historical data indicates that CFE rarely exports power to the CA ISO, particularly during the summer peak load period. See exh. 102, CA ISO Interim Mexico Report at 2: 17-18. In fact, CFE normally imports power from the CA ISO during peak periods. Id.

Moreover, while CFE's reserve margin is projected to increase through 2007, after peaking that year, the reserve margins decrease to slightly over 200 by 2010. See exh. 102, CA ISO Interim Mexico Report at Table 5. This reserve margin is only slightly higher than the 184 MW reserve margin experienced by CFE in 2001. See exh. 102, CA ISO Interim Mexico Report at Table 5. During the critical peak summer period in 2001, CFE exported to the CA ISO only 3% of the time, and most of these minimal exports were less than 50 MWs. See Exh. 102, CA ISO Interim Mexico Report at Figure 6. Given this history, the CA ISO considers that it would be wishful thinking to rely on meaningful exports from CFE once the CFE reserve margin approaches 2001 levels, or around 200 MW. As stated by Mr. Miller "[w]hat we found was that in later years, the resources that were projected to be available for export were really no greater than they are today. And today when we look at historical imports and exports with CFE, we find that it's very unusual for them to actually be exporting to California during the summer peak period. And, in fact, normally they're importing from us." Tr. (Miller) at 915: 22-28.

The CA ISO's conclusions regarding Mexico were confirmed during the Energy Division Workshop. The workshop was attended by two representatives from CFE, Mr. Mario Lara and Mr. Alberto Gonzalez. See Workshop Report, Appendix A. While there are contradictory comments by the parties to the draft Workshop Report prepared by the Energy Division, the report as finalized by the Energy Division states clearly that 1) "[w]ithout transmission upgrade in CFE system, CFE through-flow can't be relied upon during SWPL outage", and 2) "CFE has no plan to deliver firm export to SDG&E or CA ISO during summer for the foreseeable future". Workshop Report at 3.

During the workshop, a further question arose as to whether 90 MW of uncommitted merchant generation from La Rosita Power Plant could potentially be delivered to the CA ISO during an outage of the SWPL. *Id.* This question arose because with regards to the 750 MW La Rosita Power Plant, it is currently projected that 590 MW will be connected to the La Rosita 230 kV substation, and 160 MW will be connected to the Imperial Valley 230 kV substation. See exh. 102, CA ISO Interim Mexico Report at 4. The Workshop Report indicates that "those generators that are connected to the Imperial Valley Substation may not be available to SDG&E during a SWPL outage." Workshop Report at 2. (This is consistent with the findings in the CA ISO Interim Mexico Report.) Thus, the 160 MW connected to the Imperial Valley substation would not be available during a SWPL outage. Of the 590 MW connected to La Rosita substation, some 500 MW of the output of the La Rosita Power Plant is contracted to CFE. See tr. (Weatherwax) at 1081:16-19. That leaves 90 MW of uncommitted merchant generation possibly available for sale to San Diego or the CA ISO.

The CA ISO was charged with studying this question. The CA ISO undertook the study and presented its results in section 3.3 of the CA ISO Final Mexico Report.⁵ The study demonstrates that the CA ISO cannot rely on 90 MW of uncommitted merchant generation from La Rosita Power Plant during an outage of the SWPL.

The CA ISO's study assessed the level of output from La Rosita Power Plant that could flow through the CFE system to Tijuana with the Imperial Valley to La Rosita line open. The Imperial Valley to La Rosita line was opened in order to isolate the flow over the CFE path due to the La Rosita Power Plant from through-flow, in other words the flow that would be coming in from Imperial Valley.⁶

The assessment showed that 54.25% of the time, it would not be possible for a full 590 MW from La Rosita Power Plant to move west. CA ISO Final Mexico Report, Figure 7. This means that, even without considering the effects of through-flow, during an outage of the SWPL, 54.25% of the time 90 MW could not be delivered reliably to Tijuana from the La Rosita Power Plant, but rather the output of the plant would have to be reduced to prevent overloading the La Rosita – Rumorosa line. The CA ISO assessment found that during an outage of the SWPL, only

⁵ Since during the workshop the CA ISO was charged with assessing and reporting on the question of the deliverability of the 90 MWs of uncommitted merchant generation from the La Rosita Power Plant, and since the results were served on all parties as part of the CA ISO's comments on the Workshop Report, the CA ISO will cite freely to section 3.3 of the CA ISO Final Mexico Study.

⁶ In fact, if the Imperial Valley to La Rosita line were not opened, additional flows could be expected over the La Rosita – Rumorosa line as is illustrated in Figure 7 of the CA ISO Final Mexico Report by the difference in the graph lines for the flows over La Rosita - Rumorosa Pre-Outage (before opening the Imperial Valley – La Rosita line) and Post-Outage (after opening the Imperial Valley – La Rosita line). With the Imperial Valley to La Rosita line open, the flows over the La Rosita – Rumorosa line are less and so there is less likelihood that the flows will exceed the line rating and cause the need to reduce output from La Rosita Power Plant. In other words, without the Imperial Valley to La Rosita line open, less power would be likely to flow from the La Rosita Power Plant to Tijuana because some of the "room" on the line would be taken up by through-flow.

410 MW of the 590 MW of La Rosita Power Plant connected to CFE could be delivered reliably, or more than 95% of the time. CA ISO Final Mexico Report, at 15.⁷

ORA reliability witness Stephenson testified, in contrast to the CA ISO's findings, that he found reliable deliveries of 500 MWs from Mexico possible in the power flows that he conducted. The CA ISO was initially surprised at these differences in findings; however, the following factors help explain the differences. First, Mr. Stephenson found that the flow on the La Rosita – Rumorosa line would be 461 MW after an outage of SWPL, tr. (Stephenson) at 1068: 20-21; see also Exh. 222, a finding that is consistent with the CA ISO's findings that the La Rosita – Rumorosa line would often be overloaded during an outage of the SWPL. Mr. Stephenson also testified that the flows could be restored to levels below the line rating by reducing output from generators, tr. (Stephenson) at 20-23, and presumably thus maintaining reliable deliveries of 500 MW over Path 45. However, Mr. Stephenson also testified that his study did not distinguish between through-flow and exports, tr. (Stephenson) at 14-15, and was limited to an assessment based on conditions in 2005, tr. (Stephenson) at 1056; 20. Thus, it is possible that a significant portion of the 500 MW was from exports, which, as is described above, the CA ISO considers to be unlikely particularly by 2010.

Further differences between the CA ISO and the ORA analyses are

- Mr. Stephenson used a base case of older vintage than that used by the CA ISO, tr. (Stephenson) at 1059: 8-23.
- Mr. Stephenson admitted that information received from CFE indicated that some of the ratings that he used should have been lower than the ratings he used, tr.

⁷ As Mr. Miller testified SWPL interacts with the CFE parallel path such that if the CFE path were lost SWPL would carry a substantial part of the flows. Tr. (Miller) at 819: 3-9. Thus, the fact that only 410 MW could be reliably delivered from La Rosita Power Plant to the west without SWPL in service does not mean that the same limitation would apply with SWPL in service.

(Stephenson) at 1062: 3-18. (Nonetheless, it does appear that Mr. Stephenson used the correct line rating for La Rosita – Rumorosa (normal rating 388 MW, emergency rating 430). tr. (Stephenson) at 1063: 2-3; tr. (Solé) at (1177: 4-6.)

- Mr. Stephenson assumed that the entire La Rosita Power Plant was connected to the La Rosita 230 kV Substation, see tr. (Stephenson) at 1072-73.
- Mr. Stephenson assumed that the following resources would be on line that were not included in the CA ISO's modeling: Otay Mesa (550 MW) and AEP Resources (250 MW) at Otay Mesa, cite. Exh. 201A, ORA Report at 36.

As to all these items, the CA ISO considers that its own assumptions are more accurate.

As a general rule, more recent up-to-date information is preferable. Moreover, the La Rosita Power Plant is currently planned to be connected to La Rosita Substation only in part, as is described in the CA ISO Interim Mexico Report. Exh. 102, CA ISO Interim Mexico Report at Figure 1. Finally, as will be discussed in subsequent sections, there is some uncertainty as to the status of the Otay Mesa plant.⁸

Probably the most significant difference between the ORA and the CA ISO analyses is that ORA witnesses assumed that when the La Rosita – Rumorosa line becomes overloaded, there would be time to reduce generation output to maximize flows through CFE without curtailing the La Rosita – Imperial Valley line. See tr. (Stephenson) at 1070: 6-21. This assumption is important, given that ORA's power flow studies did identify a significant overload of the La Rosita – Rumorosa line: 461 MW or 70 MW above the 388 MVA normal line rating. See tr. (Stephenson) at 1068: 20-23; Exh. 222, Imperial – Miguel Outage Power Flow Plot.

⁸ In any event, the CA ISO Final Mexico Report includes a scenario in which Otay Mesa was added and the La Rosita Power Plant generation was dispatched against load or generation at Presidente Juarez. In this case, during an outage of the SWPL, La Rosita – Rumorosa was still overloaded 48.3% of the time. See CA ISO Final Mexico Report at Figure 8.

Thus, both the CA ISO and ORA analyses show similar immediate effects from a SWPL outage. However, the CA ISO disagrees with ORA that it is possible to rely on running back generation to address the overload, or even, that if this is done, significant through-flow could reach San Diego during an outage of the SWPL.

First, as stated earlier, there is a SPS in place that protects the La Rosita – Rumorosa line by opening the Imperial Valley – La Rosita line during an outage of SWPL if the La Rosita – Rumorosa line becomes overloaded. Exh. 102, CA ISO Interim Mexico Report at 6. The SPS scheme is described in the Interconnected Control Area Operating Agreement (ICAOA) between the CA ISO and CFE in Schedule 10 as follows: "La Rosita to Rumorosa Transmission Line: The La Rosita to Imperial Valley transmission line cross-trips in 1.5 seconds if load on the La Rosita to Rumorosa transmission line exceeds its continuous rating of 302 MVA." Exh. 105, ICAOA at 30. It was established that the 302 MVA rating has been increased to 388 MVA. Tr. (Solé) at 1177:4-6. However, with this change, the SPS remains available to CFE. Exh. 102, CA ISO Interim Mexico Report at 6. When armed, the SPS would cause the La Rosita to Imperial Rumorosa line to trip almost immediately upon an overload of the La Rosita to Rumorosa line.

Witnesses for ORA and the Joint Opponents raised several questions about the SPS and its impact on through-flow in 2005. None of these challenges provide a basis to assume that through-flow can be relied on during an outage of the SWPL in 2005. Mr. Schmus testified that he had spoken to a CFE representative who informed him that the SPS is out of service at this time, although the decision to take the SPS out of service was taken in light of current conditions. Tr. (Schmus) at 1193: 5-12. However, Mr. Schmus acknowledged that the equipment supporting the SPS is installed, that the assets it protects are valuable, and that to the

degree use of the scheme becomes again necessary from time to time, the option will exist to use it. Tr. (Schmus) at 1193: 16-28.

Although Mr. Schmus' testimony that the SPS is currently not armed, is inconsistent with CA ISO testimony, his testimony is consistent with the CA ISO's findings in the CA ISO Interim Mexico Report, and with a view that the SPS will be a concern in 2005. The CA ISO's analysis shows that at this time, prior to operation of La Rosita Power Plant, the La Rosita – Rumorosa line is never overloaded in normal circumstances and that even during an outage of the SWPL, the risk of overloading the line is fairly limited (a small percentage of the time). ex. 102, CA ISO Interim Mexico Report at Figure 3; tr. (Miller) at 813: 5-6. In these circumstances, a CFE decision to disarm the SPS would be understandable. However, once the La Rosita Power Plant comes online, the risk of La Rosita – Rumorosa line overloads increases significantly during an outage of the SWPL to at least 50% of the time. Exh. 102, CA ISO Interim Mexico Report at Figure 3. Mr. Schmus himself admitted that once La Rosita Power Plant comes on line, there would be times when the lines between La Rosita to Tijuana and Tijuana to Miguel would not be able to handle a power surge from an outage of SWPL without a remedial action scheme or adding more lines. Tr. (Schmus) at 1194: 21-25. Accordingly, there is a high likelihood that the SPS will be in effect in 2005.

Further, ORA witnesses posited that operating procedures set forth in the ICAOA could have changed due to upgrades to Path 45. Tr. (Stephenson) at 1178: 26-27; (Clark) at 1179:1-11. The CA ISO certainly does not dispute that there have been system changes that are not reflected in the ICAOA; the CA ISO itself acknowledged that the current normal rating for the La Rosita – Rumorosa line is higher than is reflected in the ICAOA. However, in the case of the SPS for the La Rosita – Rumorosa line, in contrast to ORA's speculation that the operating procedures may

have changed, there is evidence on the record that an SPS does in fact exist. Mr. Miller's and Mr. Schmus' testimony are consistent that SPS equipment is still in place, and that the scheme can be made operable when circumstances warrant. Tr. (Miller) at 814: 26-28; (Schmus) at 1193:16-28. Accordingly, there is no basis to dismiss the existence of the SPS.

ORA also argues that rather than tripping the La Rosita – Rumorosa line, it would be possible to run back generation. Tr. (Stephenson) at 1070. However, even ORA testified that a run back approach would take "a few minutes. . . . It's many minutes" tr. (Clark) at 1185: 20-23. In contrast, the SPS operates in 1.5 seconds. Exh. 105, ICAOA at 30. Thus, the generation run back alternative does not provide the same level of protection as the SPS. Moreover, ORA fails to explain why CFE would opt to run back or trip generation serving CFE load in order to support California in the event of an outage of the SWPL, rather than to operate its system first and foremost to ensure continued service to its own load, including opening lines to California as necessary to protect the integrity of its own system and supplies. To the contrary, Mr. Avery who has twenty years experience negotiating with CFE for firm capacity agreements, explained that these negotiations have always failed because the CFE system "is growing at an alarming rate as well and they are planning for their needs and the requirement . . . is that to the extent that the needs conflict or compete with each other, they have to serve their needs first." Tr. (Avery) at 391: 19-25; 413: 3-8.

In addition, ORA posited that a low cost series reactor could be installed in lieu of the SPS to regulate the flow from Imperial Valley to La Rosita to Rumorosa in the event of an outage of the SWPL. The study undertaken by the CA ISO to assess the availability of 90 MW of uncommitted merchant generation from La Rosita Power Plant to San Diego during an outage of the SWPL demonstrated that this alternative is not feasible as opening the Imperial Valley to

La Rosita line is similar to inserting a reactor of an infinite impedance, yet even with the Imperial Valley to La Rosita line open, the La Rosita – Rumorosa line cannot accommodate full output from La Rosita Power Plant during an outage of SWPL. CA ISO Final Mexico Report at 15.

Finally, the Joint Opponents posit that CFE might upgrade its system to improve the capability of the east to west path from La Rosita to Tijuana, making the SPS unnecessary and potentially increasing the possible level of through-flow. Tr. (Schmus) at 1194-5. It is worth noting that CFE and SDG&E do in fact have a number of important upgrades planned, and that these upgrades were modeled by the CA ISO in its assessment of through-flow and exports from Mexico. See Exh. 102, CA ISO Interim Mexico Report at 4. However, there is no evidence in the record that there are any plans to upgrade the La Rosita – Rumorosa line which is, with the planned upgrades in place, the most vulnerable component of the east to west path from La Rosita to Tijuana.

The CA ISO has been in frequent discussions with CFE regarding upgrades to the system to accommodate deliveries of the substantial new generation planned in the Mexico/US border area and notwithstanding these discussions, the CA ISO is unaware of any plans for upgrading from La Rosita to the west. Tr. (Miller) at 908: 17-20. Further, the CA ISO considers that at this time, there is little incentive for CFE to upgrade the La Rosita – Rumorosa line. First, provided that the existing SPS remains in place, it appears that the path is adequate for CFE's generation.⁹ Tr. (Miller) at 908: 26-28; 909: 1. Further, the path from La Rosita to the west is long, about 100

⁹ Although Mr. Weatherwax posited that the La Rosita Power Plant has been expanded beyond 750 MWs, this suggestion was based solely on a press release addressing financing, and was not understood to be the case by any other witness. Tr. (Weatherwax) at 1187: 26-28; 1188: 1-3. The press release in question was introduced as exhibit 218. A review of the press release suggests that the "additional" MWs above the 750 MW La Rosita Power Plant known of by most witnesses, are from the La Rosita Expansion Project (or InterGen B in exhibit 201A, the ORA Report at 36). This interpretation is more consistent with what was known of projected InterGen power plants by Mr. Weatherwax himself prior to review of the press release.

miles, and would be costly to upgrade. Tr. (Miller) at 908: 20-21. Finally, the upgrades would be primarily to provide a back-up path to California during an outage of a California line that occurs infrequently. Tr. (Miller) at 909: 21-25.

Mr. Schmus initially testified that he believed CFE might add additional transmission lines simply to accommodate the new generation planned in the La Rosita area. Tr. (Schmus) at 1195-6. However, Mr. Schmus clarified that he thought it is unlikely that CFE would add specific transmission lines just to provide California with back up service. Tr. (Schmus) at 1221: 1-2. Further, Mr. Schmus noted that to improve transfer capability east to west, CFE could add an additional line but that this option would have a very high first cost, or it could pursue lower cost upgrade technology. Tr. (Schmus) at 1223: 8-16. Mr. Schmus noted that whereas if transmission lines were added it is likely that extra capacity "headroom" would be available to accommodate contingencies, lower cost upgrades would be unlikely to add "headroom". Id.

Thus, while there was considerable speculation about potential upgrades that could improve through-flow during an outage of SWPL, there is little solid evidence in the record that CFE will in fact upgrade the path from La Rosita to the west in a manner that would improve the situation, or that if they do so, they will add adequate capacity to accommodate significant through-flow in the event of an outage of the SWPL.

In sum, San Diego cannot rely on through-flow or exports from Mexico to meet the area's reliability needs. At best, the record could be said to support further review and exploration of joint agreements and actions between CFE, the CA ISO and SDG&E to mutually reinforce east to west transfers north and south of the Mexican border. These actions might be an alternative to a project such as Valley-Rainbow worth considering in phase two of this proceeding. However, they provide no basis to conclude that a project such as Valley-Rainbow is not needed. Through-

flow and/or exports are not available absent proactive steps, the feasibility, costs and impacts of which must be assessed to change and improve existing and planned infrastructure in Mexico to provide reliable back-up to San Diego in the event of an outage of SWPL.

3. The Most Recent Evidence Supports SDG&E's Load Forecast.

Projected load is, of course, an important input into an assessment to determine the reliability need for a project such as Valley-Rainbow. In assessing the need for a project such as Valley-Rainbow, the CA ISO required use of a one-in-ten year extreme weather load level. Further, the CA ISO relied on the load forecast provided by SDG&E. These assumptions are reasonable and consistent with the latest information available about whether load will rebound in the wake of the unprecedented reduction in 2001.

The CA ISO Planning standards provide that "for studies that address regional transmission facilities such as the design of major interties, a 1 in 5-year weather load level should be assumed. For studies that are addressing local load serving concerns, the studies should assume a 1 in 10-year extreme weather load level." Exh. 205, CA ISO Planning Standards at 8. On the stand, Mr. Miller explained that because the purpose of a project such as Valley-Rainbow is "to increase the load-serving capability to the San Diego community" the reliability need was "studied under a one-in-ten-year load level rather than the one in five." Tr. (Miller) at 897: 14-18. Mr. Miller further explained that the more conservative approach was appropriate for a reliability assessment because an error would result in load interruptions. Tr. (Miller) at 897: 26-28. Mr. Miller noted that the one in five year approach was really intended for economic projects between regions, where errors would simply result in lower economic benefits. Tr. (Miller) at 897: 19-26. Both Mr. Miller and Mr. Casey agreed that in the case of

an economic project, benefits should be assessed under a range of load projections. Tr. (Miller) at 898: 13-19; (Casey) at 898: 21-28.

Mr. Miller also testified that in assessing the need for a project such as Valley-Rainbow, the CA ISO used SDG&E's load forecast. Tr. (Miller) at 901: 7-8. Mr. Miller noted that the CA ISO generally uses the load forecasts provided by the utilities, although it compares these to CEC forecasts and has on staff a load forecaster who reviews utility forecasts in order to determine whether the utility forecasts are reasonable or not. Tr. (Miller) at 900: 25-27.

Mr. Jack's testimony largely provides the rationale for why the CA ISO accepted SDG&E's load forecast. Most controversial in the case of the load forecast is the "rebound" effect projected by SDG&E in 2003-2006. SDG&E explains that in 2001, San Diego experienced the largest one-year decline in load in the last fifty years. Tr. (Jack) at 642: 11-25. In fact, Mr. Jack noted that there is no historical data for such a drop or for what the recovery would be. Id.

In these circumstances, the CA ISO agrees with SDG&E that a conservative approach should be taken, preparing for a possible rebound, and closely watching how load patterns develop. But in fact, the most recent evidence supports the view that a strong load rebound is indeed likely. As Mr. Jack set forth in his rebuttal testimony, the experience since October 2001, when SDG&E prepared its load forecast, is that a rebound more robust than that projected by SDG&E is in effect. Exh. 5, Prepared Rebuttal Testimony of SDG&E at III-5, Figure 3.1. This evidence strongly supports use of SDG&E's forecast.

4. To the Extent New Generation Materializes, it is Likely to Replace Older Generation Rather Than Necessarily Adding Resources to San Diego.

A further input into determining the reliability need for a project such as Valley Rainbow is the generation that is projected to be on-line, both existing and new. Developing accurate assumptions as to the generating units that will be on-line for purposes of determining the reliability need for a transmission project has always been key. In the case of the need for a project such as Valley-Rainbow, the record and a recent Commission decision support the view that, to the extent new generation materializes, it is more likely to replace older generation than to add significantly new resources in San Diego.

To manage the substantial uncertainty associated with assessing generation likely to be on-line in the future for purposes of planning, certain industry practices have developed. As to existing projects, "industry convention is that, until a generating unit officially announces its retirement, it is assumed to be available in planning studies." Exh. 101, CA ISO Rebuttal Testimony at 6: 1-2. As to projects that have not yet been built, standard industry practice has been to include in reliability assessment studies, the generating projects that have been permitted by the CEC. Exh. 101, CA ISO Rebuttal Testimony at 4: 13-14. However, plants that have been permitted can be omitted when specific information indicates that the future of such plants is in question. Exh. 101, CA ISO Rebuttal Testimony at 4: 18-22.

As to assessing the need for a project such as Valley-Rainbow, a significant level of the uncertainty regarding generation that existed when the CA ISO filed its opening testimony has been resolved. Of the many projects that were proposed, seven units are on-line or so close to being on-line that there is no debate that they should be considered in the planning assessment; a large number of proposed projects have been cancelled; and only two projects remain in the CEC

queue. Nonetheless, uncertainty remains as to whether either of the projects in the CEC queue will be built, and more importantly, there are good reasons to believe any new generation is more likely to replace existing generation than to add to the overall resource level in San Diego.

The list of generating units the CA ISO considered in assessing the need for a project such as Valley-Rainbow was introduced as exhibit 103. In accordance with standard industry practice, the list includes all existing generation including the seven peakers that have come on recently or are projected to come on line shortly, for a total of 2337.1 MW.¹⁰ See Exh. 103, CA ISO Data Response to ORA 2.7; tr. (Miller) at 858: 13-14. The only existing generation not included is 72 MW of generation located on leased Navy property. Id.

There was some discussion during the hearings about whether it is appropriate to disregard for purposes of planning, the 72 MW of generation located on leased Navy land. The CA ISO considers that since it is known that the Navy does not intend to extend the lease for the property, the units should be treated like units that have announced their retirement. As Mr. Miller explained, these units are located on leased Navy property, and notwithstanding any preferences to the contrary on the part of the owners and the CA ISO, the Navy has indicated that it wishes to terminate the leases. Tr. (Miller) at 859: 19-28; 860: 1. This would mean the units would not be able to continue to operate in their existing location.

The CA ISO has discussed with the Navy the possibility of extending the lease for one month. Exh. 104, CA ISO Data Response to ORA 2.8. However, the CA ISO has not designated the units as Reliability Must Run (RMR) units in 2003. Id. Given that the units are not needed as RMR units in 2003, the CA ISO has limited grounds on which to persuade the

¹⁰ There is a 22MW difference between the capacity reflected by SDG&E and the CA ISO for the same list of plants. This difference is based on CA ISO internal test reports for certain of the summer peaking generation that indicate that have a lower capability than that shown by SDG&E. Exh. 103, ___, Response D.

Navy to extend its lease to the unit owners beyond 2002. Further, in order to ensure that the units are available in 2005 and beyond, the CA ISO would have to designate and pay for the units as RMR units during 2003 and 2004, years in which the units might not be needed as RMR units. Id. Yet the benefit of such designation, and on going RMR designation would, at best, be a one-year deferral of the need for a project such as Valley-Rainbow. Id.

Moreover, the CA ISO does not have an RMR Agreement with the Navy, and has few tools to compel the Navy to extend its lease to the generators. Further, if the CA ISO attempts to extend the RMR contract notwithstanding cancellation of the lease by the Navy, the generators might try to argue that they would fall under section 2.2(e) of the RMR Agreement which provides that an RMR Agreement for a leased unit terminates upon termination of the lease. While this provision refers to a leased unit, a generator might argue that a unit operating on leased property would fall under section 2.2(e) and the outcome of such an argument would be uncertain. In sum, the CA ISO considers that there is no basis on which to assume that the 72 MW of generation located on leased Navy property will be available in 2005.

The availability of Otay Mesa in 2005 is far more controversial and has changed several times during the CA ISO's consideration of a project such as Valley-Rainbow. At the time that the CA ISO initially considered Valley-Rainbow, Otay Mesa was viewed as one of the possible non-wires alternatives to the project and in fact filed extensive comments on the CA ISO's proposed non-wires solicitation policies. See Exh. 100, Tab 5, July 25, 2000, Governing Board Memo, Market Participant comments. By late March 2001, when the newly appointed CA ISO Governing Board reviewed Valley-Rainbow again, it was known that Otay Mesa could be permitted by June of that year, and that in light of significant additional proposed generation, the justification for Valley-Rainbow might become an economic one. See Exh. 100, Tab 12, March

30, 2001 presentation on the Valley-Rainbow Project, at 3. By October 5, 2001, when the opening testimony was filed, Otay Mesa had indeed been permitted, and the CA ISO acknowledged that, in accordance with standard practice, the plant should be considered in assessing the reliability need for Valley Rainbow. Exh. 100, CA ISO Opening Testimony at 10:24-26; 11: 1-2. However, by April 12, 2002, when the rebuttal testimony was filed, the Otay Mesa project had been delayed, and 17 of 36 projects that had been proposed in the San Diego area had been cancelled. Exh. 101, CA ISO Rebuttal Testimony at 4-5. By the May hearing timeframe, the project was listed as approved and underway on the CEC website. See Exh. 217A.

With these back and forth changes in the status of the project, the CA ISO remains concerned about relying on Otay Mesa to meet the need for resources in San Diego. While the color coding on the CEC website shows the project as on schedule for completion in December of 2004, this is almost a year and a half after the original in-service date of July 7, 2003. Moreover, there are a number of projects, including Calpine's 750 MW Pastoria plant, showing significantly more construction (7-14%) than Otay Mesa (5%), that show in-service dates delayed and to "be determined when the markets are favorable and financing is available." Exh. 217A. The circumstances illustrate the on-going uncertainty associated with plants that are not already substantially under construction.

There was much discussion during the hearings about a renegotiated contract between Calpine and the California Department of Water Resources (CDWR), and its likely impact on the construction of the Otay Mesa plant. The contract was introduced as Exhibit 204. However, as Mr. Miller testified, the contract does not include any commitment on the part of Calpine to definitively commence construction of the Otay Mesa project at this time. Tr. (Miller) at 857: 26-

27. Beyond 2003, the contract requires delivery of one product only, 1000 MW of firm energy 24 hours a day, 7 days a week on a take or pay basis. Exh. 204 at 1-2. The energy may be delivered from Calpine's Western Generation Assets, defined as "generating assets or portions or output thereof located in the WECC and owned or controlled by Seller or its Affiliates which are direct or indirect wholly-owned subsidiaries of Calpine Corporation which are not under contract as 'qualifying facilities'" Exh. 204 at 4-5. ORA's own witness confirmed that Calpine already has 1000 MWs within the WECC, tr. (Weatherwax) at 1030: 20, thus, Calpine has sufficient resources today to meet its obligations under the renegotiated contract.

The contract does seek to encourage Calpine to build Otay Mesa and three other plants. As to Otay Mesa and the three other plants, the contract states "[s]eller will use commercially reasonable efforts to complete its Otay Mesa . . . , Metcalf . . . , East Altamont . . . , and a project designated in accordance with subsection (a)(iv)." Exh. 204 at 7. The contract provides that at CDWR's discretion, Calpine may be required to transfer to CDWR its rights to Otay Mesa in the event that Calpine "permanently elects not to proceed with construction, development or commercial operation of the Project"; or fails to achieve four major milestones: commencing construction by December 31, 2002, beginning to pour major foundation concrete by July 31, 2003, beginning installation of major equipment by October 31, 2003, and achieving commercial operation by December 31, 2004.

While these contract provisions should provide added incentive to Calpine to proceed with Otay Mesa, they do not ensure that Otay Mesa will in fact be built. To assess what is required of Calpine in using commercially reasonable efforts to complete Otay Mesa, it is important to review the meaning of "commercial reasonableness". In California, commercial reasonableness has been defined primarily in the context of sales of collateral. Generally,

"[c]ommercial reasonableness . . . include[s] commonly accepted commercial practices of responsible businesses which afford all parties fair treatment." Gifford vs J & A Holdings, 54 Cal. App. 4th 996, 1006 (1997). More specifically as to sales of collateral a "commercially reasonable" sale is one in which "the secured party either sells the collateral in the usual manner in any recognized market therefore or if he sell at the price current in such market at the time of his sale or if he has otherwise sold in conformity with reasonable commercial practices among dealers in the type of property sold . . . " Ford & Vlahos vs. ITT Commercial Finance Corp, 8 Cal. 4th 1220, 1230 (1994). Thus, commercially reasonable means acting as a responsible commercial entity, but does not suggest acting in a manner that is contrary to commercial interests. Given this definition, it would be difficult to construe the requirement to use commercially reasonable efforts to require Calpine to go forward with the construction of Otay Mesa if it cannot obtain financing or in an environment where many other suppliers have determined that it is unduly risky to complete permitted facilities that have already commenced construction. Thus, use of commercially reasonable efforts to complete Otay Mesa requires little more than that Calpine act responsibly to construct Otay Mesa if it is commercially reasonable for it to do so.

Moreover, loss of its interests in the Otay Mesa would likely be of less concern to Calpine, if it determines that the project is not in its commercial interest in any event. And since the contract allows, but does not require, CDWR to take over the project from Calpine in the event Calpine does not meet key milestones, Calpine may not view the risk of CDWR assuming the project as significant if unfavorable market conditions persist. Thus, the contract does little more than add some certainty that if market conditions are favorable, Otay Mesa will get built, without significantly increasing the odds that the plant will get built if market conditions are

unfavorable. At the same time, the facts that Otay Mesa was delayed, exh. 101, CA ISO Rebuttal Testimony at 5: 3-4; that 17 of 36 projects proposed for San Diego have been cancelled, id., and that several projects that had commenced construction have been delayed with in-service dates contingent upon improved market conditions, exh. 217A, illustrate that at this time market conditions for new generation are uncertain at best.

Two further considerations are important with regards to how Otay Mesa should be treated for purposes of determining the need for a project such as Valley-Rainbow. First, even if the project does get built, it would delay the year of need, but not beyond the ten year planning horizon. In the scenarios prepared by SDG&E in response to Judge Cooke's ruling, those that incorporate the assumptions the CA ISO used to determine the need for a project such as Valley-Rainbow, plus Otay Mesa, are scenarios H and H-1. These scenarios show that even with Otay Mesa on-line, there is a resource need in San Diego by 2009, if Otay Mesa is not subject to a single point of failure, or 2008 if Otay Mesa is subject to a single point of failure. Moreover, by 2010, shortfalls are significant (209 to 390 MW). Thus, Otay Mesa does not solve the resource deficiency in the long term.

Moreover, there is a reasonable likelihood that adding more efficient new generation in San Diego could accelerate retirement of some of the older generating units, resulting in little net gain overall. As Mr. Miller explained in his rebuttal testimony, although it is industry convention to assume that units will be available unless they have officially announced their retirement, the age and condition of some of the older plants in San Diego should be considered in making a final determination of the need for a project such as Valley-Rainbow. Exh. 101, CA ISO Rebuttal Testimony at 6: 1-4. Mr. Miller explained that much of the 2337 MWs of existing generation in San Diego "is antiquated and inefficient when compared to modern combined cycle

generating plants. When new and more efficient generation comes on line elsewhere in the Western Interconnection, the older and less efficient generation will be operated less and may be retired. Therefore, the existing generation cannot be assumed to be available indefinitely to meet the long-term needs of the area." Exh. 101, CA ISO Rebuttal Testimony at 5: 22-28.

In fact, in a decision less than a year old, the CPUC found specifically with regards to existing generation in the service territories of SDG&E and Southern California Edison (SCE), that assuming there would be additional outages and retirements than the CA ISO standard grid planning conventions was "more consistent with the evidentiary record". D. 01-10-070, at 33, findings of fact # 8. This finding of fact was based on CEC testimony that 500 MW of generation located in SCE's service territory would retire in 2002, that approximately 615MW of emergency peaking units in SCE's and SDG&E's service territories would retire in 2003, and that if prices dropped due to additional new capacity projected to come on-line in California, Nevada and Arizona, there would be additional retirements of 1,760 MW between 2004 and 2007. D. 01-10-070 at 10.¹¹ Thus, recent Commission precedent supports the view that it is more reasonable, particularly with new generation coming on line, to assume that older inefficient generation in the San Diego area will retire, than to adhere to the planning convention that assumes that all existing generation will remain operational until it announces its retirement.

Finally, Mr. Korinek is correct that the CA ISO can require that an RMR unit continue to operate provided that it maintains an RMR Agreement in effect for the unit from year to year. Tr. (Korinek) at 452: 5-12. However, there is no evidence in the record to suggest that this approach would benefit rate payers; to the contrary, a preliminary assessment undertaken by SDG&E suggests that extending the RMR Agreement for the RAMCO peaker units to defer the need for a

¹¹ The exhibits cited in D.01-10-070 indicate that of the generation assumed to be retired by the CEC, 625 MW was located in SDG&E's service territory. See Docket 00-11-001, Exh. 11.

project such as Valley-Rainbow is not cost effective. Exh. 5, Prepared Rebuttal Testimony of SDG&E at II-14: 22-23; II-15: 1-2. While the CA ISO has not confirmed SDG&E's economic assessment, the CA ISO is aware that RMR Agreements can be costly particularly in the case of older uncompetitive units that can opt for Condition 2 status. See RMR Agreement Article 3. The CA ISO, and hence ultimately ratepayers, must pay Condition 2 RMR units their full fixed costs. See RMR Agreement, Schedule B, Table B-0. Moreover, since it would have costs to ratepayers, as well as environmental, social and aesthetic impacts, making a determination to rely on RMR Agreements to maintain uneconomic generating units on-line indefinitely should most appropriately be considered an alternative to a project such as Valley-Rainbow, to be assessed in a subsequent phase, rather than a possibility that eliminates the need for the project.

Other than Otay Mesa, the only other potential new project in the San Diego area that has not yet either been built (and considered in the needs assessment) or cancelled, is the Palomar Escondido plant proposed by Sempra Energy Resource, that is in the permitting process at the CEC. See Exh. 217A; exh. 101, CA ISO Rebuttal Testimony at 5: 8-15. The Palomar plant is not yet even close to completing permitting by the CEC; the CEC schedule for the project indicates that discovery and development of data is to take place through mid-September, when a Prehearing Conference will be held. Exh. 304. In fact, the CEC scheduling order warns parties that the schedule adopted "is an optimistic estimate of case development". Id. Thus, the development of the project is very uncertain and since the project has not been permitted it should not be considered in the planning studies. Exh. 101; CA ISO Rebuttal Testimony at 5: 10-15.

In sum, a good level of uncertainty associated with generation in San Diego has been resolved and only two significant questions remain: will Otay Mesa get built and will existing

generation retire? The record (and recent CPUC precedent) suggests that optimistic assumptions regarding both of these questions at the same time are not reasonable. A more reasonable assumption would be that, particularly if Otay Mesa gets built, some of the older, inefficient generation in San Diego will retire absent RMR Agreements or other contracts that could be costly for ratepayers. In these circumstances, it is unreasonable to assume that 510MW of new generation will be added to the supply mix in San Diego without a corresponding retirement of the existing generation.

5. For Purposes of Assessing the Need for a Project such as Valley-Rainbow, the Import Capability over Path 44 Should be Assumed to be the WECC Path Rating.

The current Path 44 rating (south of SONGS rating) is 2200 MW with SWPL in service, and 2500 MW with SWPL out of service. Exh. 5, Prepared Rebuttal Testimony of SDG&E at II-40: 6-7. ORA witnesses raised some questions about whether this rating is appropriate. Exh. 201A, ORA Report, at 20-21. Further, ORA witnesses suggested that the path rating could be increased by a series of possibly low cost alternatives. Exh. 201A, ORA Report, at 30-31. The CA ISO agrees with SDG&E that any changes to the Path 44 rating would entail the formation of a Project Review Group and detailed technical studies, and that without appropriate WECC approvals the CA ISO would violate WECC standards if it scheduled loading on Path 44 higher than 2,500 MW during an outage of SWPL. Exh. 5, Prepared Rebuttal Testimony of SDG&E at II-40: 24-25; II-41: 3-4. As Mr. Korinek testified, WECC approved path ratings are based on technical studies that must demonstrate that the path, operating at its normal rating, would be capable of withstanding the next contingency. Exh. 5, Prepared Rebuttal Testimony of SDG&E at II-40: 8-9. Accordingly, for purposes of determining the need for a project such as Valley-Rainbow, the 2500 MW rating for Path 44 during an outage of the SWPL should be used. As in

the case of other alternatives proposed by ORA, the feasibility and advisability of seeking a different path rating for Path 44 is most appropriately addressed in the next phase, when all alternatives to meet the resource need that has been identified can be considered and compared.

6. Alternatives to a Project such as Valley-Rainbow Should be Considered in Phase 2 and Must Consider the Long-Term Implications of Pursuing a Strategy of Short-Term Fixes Rather Than Developing a Robust Backbone Grid.

ORA's Report includes a number of "alternatives" to a project such as Valley-Rainbow which ORA claims could, with low cost, add the needed additional transfer capability to San Diego. Exh. 201A, ORA Report, 17-22. In addition, there was discussion of whether SDG&E should contract for or build additional generation in lieu of a project such as Valley-Rainbow. See e.g., tr. (Avery) at 406: 3-25. The evidence in the record does not support a determination that there are feasible and cost-effective alternatives to meet the need for a project such as Valley-Rainbow that are so obvious and uncontroversial by superior that they should be adopted by the Commission without a detailed assessment of their feasibility, cost, and relative environmental, social and aesthetic impacts in phase 2 of this proceeding. Moreover, a strategy of short-term fixes must be weighed against the possibility of putting into place the first component of a robust transmission system to reliably serve the needs of San Diego customers in the long-term.

ORA posits that there are a number of low-cost alternatives that would defer the need for Valley-Rainbow. Based on its own studies conducted in the context of stakeholder forums, the CA ISO has concluded that all practical 230 kV alternatives for upgrading the system in San Diego have been exhausted. Tr. (Miller) at 846: 8-20. This determination was not changed upon a general review of the "alternatives" presented by ORA. Tr. (Miller) at 846: 8-28; 847: 1-8.

Moreover, SDG&E witnesses raised questions about the feasibility of the alternatives, Exh. 5, Prepared Rebuttal Testimony of SDG&E at II-38-42, and presented preliminary evidence that, even if feasible, the "alternatives" would not be cost-effective in the long run. Exh. 5, Prepared Rebuttal Testimony of SDG&E, Section II, Attachment 7. Thus, the record indicates that there are questions about both the feasibility and the cost-effectiveness of the ORA alternatives.

Moreover, the environmental, social and aesthetic impacts of the alternatives have not been assessed and compared to those of a project such as Valley-Rainbow. In this context, the CA ISO considers that dismissing the need for a project such as Valley-Rainbow on the basis that there are low cost alternatives to defer a project is unsupported by the record and premature.

There were also numerous questions to SDG&E about whether and why SDG&E could or should contract with or build generation to meet the identified resource need. See e.g. tr. (Cooke) at 406: 3-4. However, as Mr. Avery testified, additional generation must be integrated with purchases already made by CDWR, and like new merchant generation, may primarily displace rather than add to existing inefficient generation. Tr. (Avery) at 411: 11-22. Thus, as with other "short-term deferral options", generation cannot merely be assumed to be preferable, without a careful assessment of its feasibility, cost, and environmental, social and aesthetic impacts.

In fact, the CA ISO disagrees with the implicit assumption that either a series of short-term deferrals or generation additions are necessarily preferable to putting into place the infrastructure to ensure reliable service to San Diego in the long-term. First, a project such as Valley-Rainbow "should be viewed as part of a much broader effort to put into place a robust high-voltage transmission system that supports cost-effective and reliable service in California and a broader and deeper regional electricity market." Exh. 100, CA ISO Opening Testimony at

22, 9-12. A project such as Valley Rainbow should be viewed as "one of the elements of a long-term transmission plan that would strengthen links between Southern California and Desert Southwest" and part a longer range plan to "give San Diego access to generation located outside of the SDG&E territory, including generation in Mexico and Arizona." Exh. 100, CA ISO Opening Testimony at 22:16-23. As Mr. Avery testified, a project such as Valley-Rainbow would be "a long-term asset for the statewide electrical transmission grid and the electrical system of southern California that will deliver value to customers for many decades to come". Exh. 5, Prepared Rebuttal Testimony of SDG&E at I-5, 4-8. Thus, there are benefits to proceeding with the fundamental improvements ultimately necessary to provide a reliable backbone transmission system for San Diego and California. On the other hand deferral of a project such as Valley-Rainbow could make it much more difficult and expensive to realize the longer-term plan, as the very customer growth that is driving the need for further improvements will make it more difficult and costly to site major transmission facilities. See Exh. 5, Prepared Rebuttal Testimony of SDG&E at I-11: 20-25.

Moreover, in the wake of the energy crisis, the CA ISO has come to the conclusion that generation is not always an adequate substitute for transmission, particularly in the case of major projects to enhance the backbone grid. As Mr. Casey explained, major transmission upgrades tend to provide a greater benefit than generation in terms of improving the competitiveness of the market because instead of relying on a few plants built in a particular area, customers are able to access generation from a much larger geographical area. Tr. (Casey) at 911: 6-14.

Further considerations are illustrated by the evolving position on the part of the CA ISO's Department of Market Analysis (CA ISO DMA) as to a non-wires solicitation for the Valley-

Rainbow project. In May 2000, CA ISO DMA supported a non-wires solicitation on the following grounds:

[n]onwires projects should be allowed to compete with the preferred transmission Project. The transmission Project should be approved for construction only if chosen as the preferred alternative after a competitive solicitation that includes non-transmission alternatives. DMA further recommends that the cost-benefit evaluation methodology, the time horizon for the evaluation, and the underlying assumptions used in the comparative evaluation undergo detailed review to ensure the needed reliability enhancements is obtained through the most economically efficient project.

Exh. 100, Tab 3, May 11, 2000 Governing Board Memo at 4. By the end of July 2000, however, the CA ISO DMA had revised its recommendation:

The Valley-Rainbow project is a good example of a project that enhances the backbone grid and will provide system-wide benefits. This project immediately increases access to the San Diego area markets, provides a first step to an integrated approach in upgrading the Southern California 500 kV backbone system, and may reduce reliance on San Diego area RMR units (and thus promote competition by reducing the market power of generators needed to ensure system reliability).

...

In the case of Valley-Rainbow, DMA recommends that the CA ISO proceed without a solicitation of non-wires alternatives, to help ensure that the grid infrastructure is expanded in a timely, efficient manner.

Exh. 100, Tab 6, July 25, 2000 Governing Board Memo, at 11.

In sum, it would be contrary to the record and premature to conclude that short-term fixes and/or requiring SDG&E to contract with or build generation are either feasible or preferable alternatives to a project such as Valley-Rainbow. At a minimum, the feasibility, cost and impacts of such approaches should be subject to further evaluation in the subsequent phase of this proceeding.

7. The Record Supports that There Will Likely be a Reliability Need for a Project such as Valley Rainbow by 2006, and This Likelihood Increases in Subsequent Years.

The CA ISO considers that the need for a project such as Valley-Rainbow has been adequately demonstrated and that many of the areas of controversy in the testimony and hearings are best addressed in the subsequent phase where the best alternative or alternatives to meet the identified need for a project are to be assessed.

As stated above, using the scenarios prepared by SDG&E as a reference, the CA ISO considers that a need for a project such as Valley Rainbow is likely in 2006, and becomes even more certain in 2008-9. Summarizing the discussion in the sections above, the CA ISO is persuaded after careful study that reliance on Mexico for either through-flow or exports during an outage of SWPL is not supported by the record. Further, the CA ISO considers that SDG&E has adequately defended its load forecast. The evidence suggests that, as SDG&E projected, a significant level of the unprecedented load reduction experienced in 2000-01 will not persist, and that SDG&E's projection of the load "rebound" is accurate or unduly modest. Finally, the CA ISO considers that consistent with the CPUC's recent determination in D.01-10-070, even if the assumption is made that Otay Mesa will be built, notwithstanding the remaining indications that new generation development has dramatically slowed down, Otay Mesa cannot be relied upon to add to, rather than replace existing generation. Given these conclusions, the CA ISO considers that of the scenario prepared by SDG&E, scenario D, which includes SDG&E's load forecast, and the RAMCO units through 2008 is the most likely. Scenario D is likely even if Otay Mesa comes on-line to the extent that Otay Mesa replaces existing generation rather than adding

resources to the San Diego area.¹² Moreover, in the case that scenario D is taken to reflect the addition of Otay Mesa but with corresponding generation retirements, because it did not model Otay Mesa, the scenario reflects a more conservative assumption that Encina 5 would remain the G-1 contingency even if Otay Mesa comes on-line. This scenario shows a resource need by 2006. In fact, scenarios I and J indicate with the scenario D assumptions, that there is a need for a project such as Valley-Rainbow in 2006, even if demand does not bounce back as quickly as projected by SDG&E (and supported by the experience in the initial months of 2002). Scenario K illustrates that, in fact, the need for Valley Rainbow is only deferred until 2008 even if there is essentially no bounce back in demand at all. It is possible of course, that displacement of existing generation by Otay Mesa will not happen immediately, but rather over two or three years. This would only mean that, if Otay Mesa comes on line, the need for a project such as Valley Rainbow could be defined through 2007-8.

Since need for a project such as Valley-Rainbow is relatively probable in 2006 and becomes increasingly likely after that, a do nothing, wait and see approach by the Commission would be highly risky and inappropriate. In fact, while challenging the need for a project such as Valley-Rainbow, ORA and the Joint Opponents base many of their criticisms on an argument that actions other than building a substantial transmission project are appropriate: such as building or contracting with generation, contracting with Mexico for exports, working with Mexico to improve the capability over the path from La Rosita to the west, or undertaking purportedly lower cost short term transmission fixes. Further discussion can be had regarding these alternatives, their feasibility, cost-effectiveness, and relative merit considering reliability

¹² If scenarios D, I, and J are used as a proxy for Otay Mesa on-line with corresponding existing generation retirements, it would not be appropriate to retire the RAMCO units after 2008. However, since a need is identified prior to 2009 when the RAMCO units were taken out of the assessment, this correction would not affect the need year.

needs, economics, environmental, social and aesthetic impacts. However, this phase was to focus on whether there is need for a project that justified the further work of determining which of the available alternatives would be best. The only responsible conclusion that can be drawn based on the record is that something must be done. In light of the record, there is no basis for the Commission to determine that there is no reliability risk to San Diego customers and hope that developments in Mexico or with new generation are adequate to meet San Diego's needs.

The CA ISO acknowledges that there remains some uncertainty as to a variety of key factors that affect the need for a project such as Valley-Rainbow including the extent to which load will bounce back after the unprecedented decrease in 2001, whether Otay Mesa will materialize, and whether some of the older generation in San Diego will retire. However, the CA ISO considers that there is enough evidence on the record to make a reasoned judgment as to these factors keeping in mind that in determining the reliability need for a project, a conservative approach is appropriate since errors could result in the need to shed load. A conservative approach does not mean to plan for any eventuality regardless of how unlikely; as Mr. Avery testified, the electric system certainly cannot be built to preclude any dropping of load, tr. (Avery) at 380: 1. Nonetheless, there is evidence in the record that under the most likely scenario, the need for a project would materialize in 2006, and a need will almost certainly materialize in subsequent years well within the ten year planning horizon.

California has clearly placed a high priority on robust grid reliability. As stressed by the legislature in the context of electric industry restructuring "[r]eliable electric service is of utmost importance to the safety, health, and welfare of the state's citizenry and economy." Public Utilities Code Section 330(g). Ongoing concern by the legislature for electric reliability is evident in the recent passage of SB 39 establishing maintenance practices for generators. See

Public Utilities Code Section 761.3. Moreover, the reliability of the transmission system is of particular importance, as problems at the transmission level can affect many more customers than problems at the distribution level. Tr. (Miller) at 869: 22-28; 870: 1-12. In this context, the CA ISO considers that a responsible application of the CA ISO Planning Standards dictates proceeding to the next phase to determine the best alternative to meet the identified need in San Diego.

The CA ISO notes moreover that it agrees in large part with ORA's exhortation to the Commission that it should engage in strategic planning. See. e.g. tr. (Clark) at 970-1. However, the CA ISO also believes that strategic planning should be coupled with a long-term vision for the electricity grid. Thus, strategic planning should not necessarily favor short term fixes that could postpone the need to put into place major pieces of infrastructure. Rather, evaluation of short-term fixes requires consideration of the cost-effectiveness of a series of short term fixes, and the desirability of more permanent solutions to identified needs. It is necessary to keep in mind the possibility that by opting for a series of short term fixes the Commission could foreclose the opportunity to put into place a more robust longer term solution that provides the basis for further development of the transmission system. Most importantly, however, it does not make sense to debate these competing considerations in the abstract. Rather, balancing these considerations as well as environmental, social and aesthetic impacts, when making a choice among the available options to meet the resource need is precisely what the next phase of the proceeding should be about.

Finally, the CA ISO notes the importance of moving forward now given that there is strong support in the record for a reliability resource need by 2006, which becomes almost certain by 2008-9. The timing of decisions about the transmission system was discussed

extensively in the proceedings. While there was disagreement about whether the Commission should make a decision on a project such as Valley-Rainbow now, most witnesses agreed that it is appropriate to look out least ten years in planning the transmission system. Tr. (Avery) at 405: 20-28; 407: 1-2; (Miller) at 869: 1-6; (Schmus) at 1210: 10-19. Most witnesses also agreed that from the time a determination is made to build a major transmission project, such as Valley-Rainbow, until the project is permitted and constructed can take five to six years. Tr. (Miller) at 895: 16-25; (Stephenson) at 1108: 1-4; (Schmus) at 1210: 24-28. It is now the middle of 2002. Before a project such as Valley-Rainbow can be built, a further phase of Commission proceedings must take place, which is not scheduled to conclude until August 2003. See November 30, 2001 ALJ Ruling Granting Motion to Modify Schedule at 2. This leaves only two to three years for a project to be completed after the final Commission decision – a feasible but not extended schedule if need materializes in 2006.

Moreover, even if the CPUC considers that a need is unlikely to materialize until 2008-9, to meet this time frame a denial of a CPCN by the Commission now would just mean that it would be necessary to start the permitting process all over again almost immediately to provide the five to six years for permitting and construction. Thus, even if the Commission is persuaded that need is unlikely to materialize until 2008-9, to meet this time frame without an inordinate waste of resources it makes sense to proceed to the next phase of this proceeding to determine the alternative(s) that should be put in place. If necessary, the CPUC can condition next steps on further developments.

If the Commission does not proceed to a next phase it is likely that, since parties will have little appetite to expend resources to re-litigate the issue of need immediately all over again, the Commission will, without assessing all the available alternatives and their relative reliability,

economic, environmental, social and aesthetic merits, have by default chosen short term fixes and foreclosed the opportunity to put into place the first piece of a more robust long-term transmission system for San Diego. SDG&E and the CA ISO will take all possible steps to maintain reliable service in San Diego in any event, but the steps taken may ultimately be more expensive, have environmental, social and aesthetic impacts that have not yet been considered and discussed, and provide for less robust and long term reliability. Rather than a decision on these matters by default, the CPUC should move to the next phase where the trade offs of the various alternatives can be fully assessed.

III. THE COMMISSION SHOULD CONSIDER THE POTENTIAL MARKET POWER MITIGATION AND ASSOCIATED BENEFITS OF A PROJECT SUCH AS VALLEY RAINBOW IN ASSESSING THE ALTERNATIVES TO MEET THE RELIABILITY NEED IN SAN DIEGO.

Two assessments were performed of the potential economic benefits of Valley-Rainbow, one by SDG&E and one by ORA. Neither of these studies assessed the potential benefits associated with 1) providing an incentive for new generation development in California, 2) mitigating market power and 3) promoting supply diversity. Exh. 100, CA ISO Opening Testimony at 12: 21-23. In this regard, the CA ISO considers that the studies are not likely to adequately reflect the potential benefits of a project such as Valley Rainbow.

The CA ISO itself did not undertake a quantitative study of the market power mitigation and associated benefits of a project such as Valley-Rainbow. Tr. (Casey) at 830: 8. This is because, at the time Valley-Rainbow was initially considered by the CA ISO, the project was reviewed as one critically necessary to maintain reliability rather than an economic project. Exh.100, CA ISO Opening Testimony at 13: 3-4. Since that time, the CA ISO simply has not had the resources to undertake all the economic studies it would like to with regards to transmission upgrades. Tr. (Casey) at 832: 4-11.

Nonetheless, absent quantitative information, the CA ISO considers that the Commission should qualitatively consider the following potential benefits from a project such as Valley Rainbow:

- 1) a project such as Valley-Rainbow could encourage new generation development in San Diego and in northern Baja California. It is reasonable to expect that without adequate transmission infrastructure for exporting power out of the San Diego area, some developers will choose not to proceed with proposed new projects in San Diego and in northern Baja California. Exh. 100, CA ISO Opening Testimony at 14: 4-7. As a result, San Diego customers could be forced to continue to rely on power from older plants with higher operating costs, and hence to absorb higher electricity costs. Exh. 100, CA ISO Opening Testimony at 14: 7-10. Moreover, if projects proposed in San Diego and in northern Baja California are not economically viable elsewhere in California or the WECC, due to less favorable siting factors such as natural gas infrastructure, land availability, access to cooling water etc, there may be a detrimental cost impact to load throughout the WECC. Exh. 100, CA ISO Opening Testimony at 14: 11-15;
- 2) a project such as Valley-Rainbow could help mitigate market power in California's wholesale electricity markets through increasing competition among suppliers and lowering prices for critical services. Exh. 100, CA ISO Opening Testimony at 14: 18-22. The fact that additional supply is being added in California will not necessarily, without more, reduce the ability of suppliers to exercise market power to the extent that new projects are proposed by existing generation owners. Exh. 100, CA ISO Opening Testimony at 15: 6-14; see also tr. (Casey) at 917: 9-22. Moreover, while the CA ISO has not assessed the market power mitigation benefits of a project such as Valley-Rainbow, key research by Borenstein, Bushnell and Stoft (2000) indicates that "the mere focus on the reliability-enhancing role of a transmission project,

such as reduced curtailments in service, increased imports and exports over the new facilities, or revenue derived from charging for the usage of new capacity, might severely underestimate the economic benefits of a transmission project and lead to poor policy decisions”. Exh. 101, CA ISO Rebuttal Testimony at 8: 4-10. Moreover, the fact that market power mitigation benefits of a transmission facility can be significant has been illustrated by theoretical analysis, and the CA ISO’s assessment of the market power mitigation benefits of a proposed Path 15 expansion project. Exh. 100, CA ISO Opening Testimony at 15: 8-18; exh. 101, CA ISO Rebuttal Testimony at 8: 8-10.

3) a project such as Valley-Rainbow, particularly if viewed as part of a broader plan to build a more robust 500 kV backbone system in the WECC, would ensure greater supply diversity by strengthening San Diego's links to the rest of the WECC system. Exh .100, CA ISO Opening Testimony at 15: 21-23. Almost all the new generation proposed in California and the Southwest is gas fired, making San Diego susceptible to the price risk of that fuel type if it does not have adequate transmission links to other sources of supply. Exh. 100, CA ISO Opening Testimony at 15: 21-28. At the same time, it is not certain whether natural gas infrastructure will keep pace with the growing demand from new power plants. Exh. 100, CA ISO Opening Testimony at 15 27-28; at 16: 1. If it does not, this could translate into higher gas prices and higher energy prices for California load, particularly if there is limited access to power produced from alternative fuel types. Exh. 100 CA ISO Opening Testimony at 16: 1-9.

The Joint Opponents argue that a project such as Valley-Rainbow would not have market power mitigation benefits because the Federal Energy Regulatory Commission (FERC) will undertake regulatory responses to ensure that suppliers are unable to exercise market power. Exh. 300, Joint Opponents Opening Testimony at III-17-22. This view is short sighted. First,

regulatory responses to the exercise of market power have proven to be of questionable effectiveness, and hence are viewed as second best to correcting the fundamental deficiencies that enable suppliers to exercise market power. Tr. (Casey) at 840: 15-19. In fact, the CA ISO has documented that notwithstanding the existing West-wide market power mitigation program in effect, anti-competitive bidding practices persist resulting in customers paying 29% more than they should have for Incremental Energy dispatched by the CA ISO during July 2001 through February 2002 alone. Exh. 310, CA ISO Comprehensive Market Design Proposal, at 12-13. Thus, regulatory responses are not a panacea.

Further, the existing West-wide market power mitigation program is scheduled to terminate on September 30, 2002, and any subsequent measures are likely to be confined to California and hence to be much less effective. Exh. 101, CA ISO Rebuttal Testimony at 8: 19-26. If a California only approach is adopted, the mitigation approach can be undermined by suppliers simply exporting power out of California and offering that power back into California as an import. Tr. (Casey) at 841: 11-17. Accordingly, the CA ISO has emphatically requested FERC to maintain the West-wide market power mitigation program in place until further progress is made towards putting in place the structural preconditions needed for a functioning competitive market. Exh. 310, CA ISO Comprehensive Market Design Proposal, at 39-40. Nonetheless, FERC is under considerable pressure to eliminate the West-wide mitigation program from neighboring areas that argue that the program reduces their ability to get needed supplies during high demand periods. Tr. (Casey) at 918: 6-23.

Because FERC has stressed that it will not continue the West-wide approach after September 30, 2002, the CA ISO has also proposed a California only approach. See Exh. 310, CA ISO Comprehensive Market Design Proposal, at 45; tr. (Casey) at 841. However, the CA

ISO has stressed that it "strongly believes . . . that extension of the currently effective market price mitigation measures is the minimum interim approach that would satisfy the statutory standard that just and reasonable wholesale rates be assured." Id.

Finally, as Mr. Casey testified, controlling the ability of suppliers to exercise market power requires a combination of elements. Tr. (Casey) at 839: 27-28; 840: 1-10. It is true that there are other structural elements in addition to building transmission to control market power, including development of price-responsive demand, long-term forward contracts, and the addition of generation. Tr. (Casey) at 838-9. However, it is not effective to pick one approach and assume that it will be sufficient to control market power. Tr. (Casey) at 839: 27-28; 840: 1-2. Rather, a number of structural elements must be pursued. Tr. (Casey) at 840: 3-8. Certainly, building needed transmission infrastructure is one key element. Exh. 100, CA ISO Opening Testimony at 20: 22-27.

The Joint Opponents further criticize the CA ISO's testimony on potential economic benefits from a project such as Valley-Rainbow, on the grounds that some of the benefits are more significant, if a project such as Valley-Rainbow is viewed as a component of a broader strategy to put into place a robust back-bone transmission system. Exh 300, Joint Opponents Opening Testimony, at III-27-28. Nonetheless, the fact that a project such as Valley-Rainbow provides a starting point upon which further progress can be made should be considered, particularly when contrasting the relative merits of the approaches available to meet the reliability need in San Diego. Certainly, a strategy of on-going the short-term fixes would not advance the long-term objective of putting into place a robust transmission system, and this consideration must be taken into account.

In sum, a project such as Valley-Rainbow would likely provide economic benefits beyond those assessed by SDG&E and ORA, including stimulating new generation development, reducing the ability of suppliers to exercise market power, and supporting supply diversity. Even though these benefits have not been quantified, the Commission should consider them qualitatively in making its determination about the best alternative to meet the reliability need in San Diego.

IV. THE NEED FOR A PROJECT SUCH AS VALLEY-RAINBOW HAS BEEN CONFIRMED REPEATEDLY BY CA ISO; THE CPUC SHOULD GIVE DUE CONSIDERATION TO CA ISO REVIEW AND APPROVAL OF THE PROJECT

The reliability need for a project such as Valley-Rainbow was initially identified in a public CA ISO stakeholder planning process, and has been consistently confirmed by the CA ISO Governing Board in a series of motions. In accordance with state law and public policy, the CPUC should afford due deference to the CA ISO's determination that a project such as Valley-Rainbow is needed in San Diego. Conversely, the CA ISO acknowledges the CPUC's important responsibility to identify, assess, and make siting decisions that balance, the environmental, social and aesthetic impacts of a project such as Valley-Rainbow, and is committed to making its expertise available to the CPUC to assist in this endeavor in a subsequent phase of this proceeding.

A. The need for a project such as Valley-Rainbow was identified in a public CA ISO stakeholder process and has been confirmed repeatedly by the CA ISO Governing Board.

The Valley-Rainbow project grew out of SDG&E's 1999 Expansion plan for 2000-2004, which identified (1) multiple criteria violations to the CA ISO Planning Standards in 2004, and (2) that given the exhaustion of reinforcements at the 230 kV level, new 500 kV facilities would be needed. Exh. 100, CA ISO Opening Testimony at 3: 21-25. The CA ISO sponsored annual

planning process in which Valley-Rainbow was identified is open to all Market Participants and is a forum in which their concerns and proposed projects can be considered. Exh. 100, CA ISO Opening Testimony at 18: 11-2. As Mr. Miller testified as to generation assumptions, in the CA ISO stakeholder forum Market Participants can participate actively in the development of the base case used to assess the need for a project. Tr. (Miller) at 901: 15-28; 902: 1-3.

A need having been identified, SDG&E and SCE undertook a joint study, through an open CA ISO stakeholder process, to identify and recommend the preferred transmission solution that could be placed in service by June 2004. Exh. 100, CA ISO Opening Testimony at 3: 25-27. The study assessed the feasibility of Valley-Rainbow and evaluated three 500 kV alternatives. Exh. 100, Tab 3, May 11, 200 Governing Board Memo, Attachment A: May 12, 2000 Valley-Rainbow Interconnection project Feasibility Study Report, 4-5. The study identified as the preferred alternative a transmission line between SCE's existing Valley substation and a new SDG&E substation at either the Rainbow or Pala site in northern San Diego county. Exh. 100, CA ISO Opening Testimony at 4: 1-3.

The project was considered by the CA ISO Governing Board in a series of meetings. These resulted in a series of governing board motions that reflect changing circumstances and related policy considerations. Nonetheless, the CA ISO Governing Board has been steadfast in its determination that a project such as Valley-Rainbow is needed.

In May 2000, when the Valley-Rainbow project was first presented to the CA ISO Governing Board, the CA ISO Governing Board approved the project, without regard to routing, subject to a competitive solicitation. Exh. 100, Tab 5, May 25, 2000, CA ISO Governing Motion. The CA ISO Governing Board reconsidered the project, and eliminated the requirement to undertake a competitive solicitation on August 1 2000. Exh. 100, CA ISO Opening

Testimony at 5: 27-28. By then distortions in the electricity market had begun to highlight the importance of a robust transmission system, and to raise questions about the advisability of using generation to delay or displace critical regional transmission facilities. Exh. 100, CA ISO Opening Testimony at 4: 18-28.

Nonetheless, the CA ISO Governing Board once again considered the Valley-Rainbow project in October of 2000 and reinstated a competitive solicitation component. At that time, the CA ISO Governing Board reiterated its finding that there is a need for a project such as Valley-Rainbow, but clarified that this finding was without selecting a preferred near-term alternative and without regard for routing. Exh. 100, Tab 10, October 26, 2000 CA ISO Governing Board Motion. In addition, the CA ISO Governing Board directed the CA ISO to work with the CPUC to solicit non-wires alternatives to the transmission line, to consult with the CPUC on what might assist the CPUC in its consideration of alternatives, and to present to the CA ISO Governing Board in January 2001, proposed parameters and a process for a competitive solicitation for alternatives to be considered by the CPUC. Id.

The CA ISO consulted with the CPUC CEQA staff and prepared a status report for the CA ISO Governing Board setting forth a recommendation for working with the CPUC to solicit alternatives to the Valley-Rainbow project for consideration by the CPUC in its CEQA process. See Exh. 100, Tab 11, January 16, 2001, Governing Board Memo at 1. Because the CA ISO Governing Board was replaced at the beginning of 2001, however, the CA ISO Governing Board did not consider the Valley-Rainbow project again until March 30, 2001. Exh. 100, CA ISO Opening Testimony at 6:26-28.

In its March 2001 memorandum to the CA ISO Governing Board, CA ISO staff noted that the Valley-Rainbow project was needed to reliably serve the growing electric demand in the

San Diego area, but also should be considered as an important component of a comprehensive strategy to enhance access by consumers in San Diego and other parts of California to reasonable priced, efficient and environmentally superior generation. Exh. 100, Tab 12, March 23, 2001 Memo to the CA ISO Governing Board at 1. The CA ISO staff presentation to the CA ISO Governing Board noted that significant new generation was proposed in San Diego, but that no major projects had commenced construction. Exh. 100, Tab 13, March 31, 2001 Presentation on Valley-Rainbow Project at 3. In this context, the project would be needed for reliability, if announced projects did not materialize, or could be needed to export excess power from San Diego if substantial generation developed. Exh. 100, Tab 13, March 31, 2001 Presentation on Valley-Rainbow Project at 5. CA ISO staff recommended that the CA ISO Governing board eliminate the requirement for a competitive solicitation, noting that displacement of major backbone transmission facilities by generation facilities was inconsistent with the emerging state priority to put into place a robust transmission system to support reliable service to customers, and that the CPUC could still consider alternatives in its CEQA process. Exh. 100, CA ISO Opening Testimony at 7: 2-5; Tab 12, March 23, 2001, Governing Board Memo at 4.

The CA ISO Governing Board reaffirmed the finding from October 26, 2000, that a project such as Valley-Rainbow is needed (without selecting a preferred near-term alternative and without regard for routing), but rescinded the requirement to undertake a solicitation for non-wires alternatives. Rationales for rescinding the solicitation included the determination that for major paths it is not appropriate to substitute generation for transmission, and the fact that generation appeared to be proliferating without a solicitation. Tr. (Miller) at 910: 9-23.

The series of motions reflect evolving policy considerations, in light of the electricity crisis, about the role of transmission to support a competitive market in addition to maintaining

reliability. An emerging theme is the recognition that in the case of major backbone infrastructure projects, generation is not necessarily an adequate substitute for transmission and that market power impacts must be considered in choosing among transmission and non-wires alternatives. In addition, there has been an acknowledgement of the role of the CPUC in determining the route for a project, and in evaluating alternatives, considering environmental, social and aesthetic impacts. These considerations are particularly critical in the case of a project such as Valley-Rainbow where concerns have been raised about the impact of the project on the communities through which the project is currently proposed to be sited. Thus, in the case of Valley-Rainbow, the CA ISO Governing Board carefully worded its motion to allow for sufficient latitude to assess alternative projects that fill the same need. See Tr. (Miller) at 891: 23-26. However, it is noteworthy that, notwithstanding this evolution in policy, the CA ISO Governing Board has never wavered in its conclusion that a project such as Valley-Rainbow is needed.

B. The CPUC and the CA ISO must develop a coordinated and complementary approach to transmission planning and expansion; due consideration should be given by the CPUC to CA ISO determinations of need just as the CA ISO has recognized the CPUC's important role in balancing environmental, social and aesthetic impacts.

As noted above, the CA ISO Governing Board's determination that a project such as Valley-Rainbow is needed has never wavered. State law and public policy support deference on the part of the CPUC for CA ISO determinations of need. The CA ISO in turn has and will continue to acknowledge the CPUC's important role in determining routes, considering environmental, social and aesthetic impacts, and in the case of Valley-Rainbow, assessing alternative projects that meet the same need as the Valley-Rainbow project.

The CA ISO has, in previous cases, set forth its analysis of the respective responsibilities of the CA ISO and the CPUC, and how these are best harmonized consistent with law and public policy. The Valley-Rainbow case highlights the importance of a cooperative approach. Valley-Rainbow has raised a variety of social issues, highlighted by opposing intervenors, that the CA ISO acknowledges must be considered and assessed by the CPUC in reviewing alternatives and routes available to effectively meet the reliability need in San Diego. The CA ISO understands the delicacy and importance of this task and welcomes the opportunity to participate in phase two, making available to the CPUC its expertise on how alternatives measure against the reliability needs of the system in San Diego and on the market and competition impacts that should also be considered. In this phase, however, the CA ISO considers that its determination that a reliability need has been identified in San Diego should be given due deference by the CPUC. Although the CA ISO's legal analysis has been presented to the CPUC in the past, to preserve its position and set forth how recent changes to state law support the same analysis, the CA ISO will summarize its analysis herein.

The CA ISO has responsibility for transmission planning under both California and federal law. Under California law, the CPUC retains responsibility for siting. California rules of statutory interpretation provide that specific statutory provisions must be read in the context of the full statutory framework, in a manner that is workable and reasonable and that avoids absurd results. An application these rules leads to the conclusion that the CPUC should give due consideration to CA ISO determinations that new transmission facilities are needed. Nonetheless the CPUC retains the responsibility to determine project routes and, in the case of Valley-Rainbow, effective alternatives, balancing environmental, social and aesthetic factors. This

approach is consistent with the series of CA ISO Governing Board motions related to Valley-Rainbow which declined to identify a preferred near-term alternative.

AB 1890 transferred responsibility for ensuring grid reliability from the state's investor owned utilities and the CPUC to the CA ISO. Public Utilities Code § 345 states that "The Independent System Operator shall ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Electric Reliability Council." Further, Public Utilities Code § 334 provides explicitly that "[t]he proposed restructuring of the electric industry would transfer responsibility for ensuring short- and long- term reliability away from electric utilities and regulatory bodies to the Independent System Operator" (emphasis added) and creates the Electricity Oversight Board to ensure that state interests are protected notwithstanding the transfer.

Transmission planning is an integral part of assuring transmission grid reliability. Public Utilities Code § 345 explicitly notes that the CA ISO must ensure compliance with planning criteria as well as operating reserve criteria, making it clear that the CA ISO has responsibility to provide for transmission planning. Moreover, without adequate facilities it is not possible to "ensure efficient use and reliable operation of the transmission grid." Thus, it would not be possible for the CA ISO to ensure compliance with planning criteria if it did not have a meaningful role in identifying the facilities that must be built to meet the standards, and if it's determinations of need are ignored in the siting process.

In addition, AB 1890 required the CA ISO to make appropriate filings with FERC to "request confirmation of the relevant provisions of this chapter and seek the authority needed to give the Independent System Operator the ability to secure generating and transmission resources

necessary to guarantee achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Electric Reliability Council." Public Utilities Code § 346. Consistent with this directive, the CA ISO filed a comprehensive tariff at FERC that provided for the creation of a transmission planning function led and coordinated by the CA ISO. This section is necessary to give the CA ISO the ability to secure "the transmission resources necessary to guarantee achievement of planning ... criteria", in accordance with Public Utilities Code § 346.

Further, it was a clear objective of the California legislature in passing AB 1890 that the CA ISO be accepted as an Independent System Operator by the FERC. See e.g. Public Utilities Code § 345; Public Utilities Code § 330(k); and Public Utilities Code § 346. CA ISO coordination of transmission planning was a prerequisite of FERC's recognition of the CA ISO as an Independent System Operator, see 77 FERC 61,204, pp 61,834-36 (November 26, 1996); 80 FERC ¶ 61,128, pp 61,416-35 (July 30, 1997). These factors are further evidence of the clear intent on the part of the California legislature to transfer responsibility for transmission planning to the CA ISO.

Finally, given the FERC directive mentioned above, that the CA ISO must coordinate transmission planning, and subsequent FERC determinations approving the transmission planning section of the CA ISO's tariff, see e.g. 81 FERC ¶ 61,122, pp 61,459 (October 30, 1997); 80 FERC ¶ 61,128, pp 61,430-35 (July 30, 1997), the CA ISO has planning responsibilities under federal as well as state law. Since state and federal law are in accord as to CA ISO responsibility for transmission planning it is unnecessary to discuss federal preemption issues.¹³

¹³ If state and federal law were in conflict as to CA ISO responsibility for transmission planning, which they are not, federal preemption issues requiring further analysis would arise.

AB 1890 did not, however, revise state law as to transmission facility siting as set forth in Public Utilities Code § 1001, et seq. Public Utilities Code § 1001 provides that no electrical corporation shall begin construction of a line "without having first obtained from the [California Public Utilities Commission] a certificate that the present or future public convenience and necessity require or will require such construction." Thus, in CPUC CPCN proceedings, utilities must still show need, as well as address the environmental, social and aesthetic factors that must be considered by the CPUC under CEQA and Public Utilities Code § 1002.

The CA ISO's transmission reliability and planning responsibilities and the CPUC's continued responsibility for transmission siting under Public Utilities Code § 1001, et seq, are easily harmonized as required under California rules of statutory construction. See Maricela C. v. Superior Court, 66 Cal.App.4th 1138; 1143-4, 78 Cal.Rptr.2d 488, 491 (Ct. App. 1998)("The parts of a statute must be harmonized by considering the particular clause or section in the context of the statutory framework as a whole."). To give effect to the CA ISO's transmission planning responsibilities, the method by which utilities are to demonstrate need in the context of CPCN proceedings should be to demonstrate, with the assistance of the CA ISO, that need has been found by the CA ISO in the context of the CA ISO's coordinated planning process. The statutory scheme requires the CPUC to give due deference to CA ISO determinations of need because, if the transmission facilities determined to be needed by the CA ISO to maintain reliability are not permitted by the CPUC, the CA ISO would have limited ability to meet its statutory responsibility to ensure compliance with operating and planning criteria. Conversely, the CA ISO should recognize and provide sufficient latitude for the CPUC's consideration of environmental, social and aesthetic impacts in determining project routes, and in the case of

Valley-Rainbow, in assessing and selecting the alternative that best balances these considerations.

Recent legislation requiring the CPUC and CA ISO coordinate and undertake prompt steps to assure an adequate transmission system supports the view that the legislature intends the CPUC and the CA ISO to adopt a coordinated and complementary approach to transmission planning and permitting. See Public Utilities Code Section 379.5.

Public policy also requires the CA ISO and the CPUC to develop a sensible approach to transmission planning and expansion and to cooperate to promote an efficient and expeditious process for the approval of necessary transmission projects. A failure on the part of the CPUC to accord proper weight to the transmission planning work of the CA ISO will have serious adverse consequences. First, the CPUC will in essence have to repeat the work that has already been undertaken by the CA ISO, resulting in an inefficient and redundant use of limited resources. Further, the potential is created for inconsistent results in the different forums, leading to uncertainty and a lack of finality. Resulting delays may only serve to exacerbate the already critical deficiency in transmission infrastructure in the state. Finally, the opportunity is created for forum shopping among affected parties, which also creates inefficiency and uncertainty. Similar concerns would arise from a failure on the part of the CA ISO to respect the CPUC's jurisdiction and expertise to assess environmental, social and aesthetic impacts of proposed transmission projects under Public Utilities Code Section 1002 and CEQA.

In sum, state law and public policy requires the CA ISO and the CPUC to work cooperatively to ensure that each entity can effectively undertake its responsibilities under state and federal law, in a manner that is respectful of the roles and expertise of each entity, that promotes regulatory efficiency, and that minimizes the duplication of efforts and inconsistent

results. The CPUC should afford due consideration and deference to the extensive planning work undertaken by the CA ISO consistent with its statutory responsibilities. Conversely, the CA ISO acknowledges the CPUC's important responsibilities identifying, assessing and making siting decisions that balance the environmental, social and aesthetic impacts of proposed transmission projects.

V. CONCLUSION.

The record demonstrates a reliability need for a project such as Valley-Rainbow by 2006, that becomes increasing marked thereafter. The CPUC should proceed to the next phase of this proceeding to assess the relative reliability, economic, environmental, social and aesthetic benefits and impacts of alternatives to meet this need.

Respectfully submitted this 12th of July, 2002 by:

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