

Decision 04-06-010 June 9, 2004

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

Order Instituting Investigation into  
Implementation of Assembly Bill 970 Regarding  
the Identification of Electric Transmission and  
Distribution Constraints, Actions to Resolve  
Those Constraints, and Related Matters Affecting  
the Reliability of Electric Supply.

Investigation 00-11-001  
(Filed November 2, 2000)

(See Attachment A for List of Appearances.)

**INTERIM OPINION ON TRANSMISSION NEEDS  
IN THE TEHACHAPI WIND RESOURCE AREA**

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## **INTERIM OPINION ON TRANSMISSION NEEDS IN THE TEHACHAPI WIND RESOURCE AREA**

### **I. Summary**

The Tehachapi area contains the largest wind resource in California and, if more fully developed, could meet a significant portion of the goals for renewable energy development in California. However, the lack of transmission in the area currently prevents new wind installations. Large-scale transmission upgrades capable of transporting power from multiple wind projects would be needed to tap the Tehachapi area's renewable potential most economically. We find that "business as usual" transmission planning approaches, which would plan and size Tehachapi transmission upgrades based solely on transmission needs of generation projects that have submitted interconnection requests, is unlikely to achieve the most cost-effective size, configuration, or timing of Tehachapi upgrades.

We require that a collaborative study group be convened to develop a comprehensive transmission development plan for the phased expansion of transmission capabilities in the Tehachapi area. Commission staff should coordinate the study group, assisted by the California Independent System Operator (ISO) as needed and with participation by Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), wind developers, and any other interested parties. We encourage the California Energy Resources Conservation and Development Commission (CEC) to participate in the collaborative study process.

Each phase of the planned Tehachapi upgrades should be a logical size and configuration based on the magnitude of the identified wind resource, engineering and cost considerations, and recognition of other factors including

regional transmission needs. While we ask the study group to address alternative approaches, we envision that construction of each phase may be triggered by acceptance of a threshold amount of bids through the Renewable Portfolio Standard (RPS) process.

We require that SCE, acting on behalf of the study group, file a report in this proceeding within nine months of the effective date of this order containing the study group's findings and recommendations. Parties may file comments and reply comments on the study group report.

In parallel with the study group efforts, SCE should pursue ISO review of Tehachapi transmission upgrades and should file a certificate application for the first phase of Tehachapi transmission upgrades no later than six months from the effective date of this order. Edison's first phase plan should be incorporated into the study group's comprehensive review, and thus the two efforts should be carefully coordinated. In addition, while the Commission does not take specific action using Senate Bill (SB) 1078 authority to allow cost recovery of RPS-related transmission investments absent a FERC allowance for cost recovery (because FERC has not yet had an opportunity to act), we make clear our inclination to use our authority therein to allow cost recovery of prudent expenditures if FERC does not.

We are concerned that the problems we have identified with current transmission planning approaches may extend to the RPS process. After a comprehensive transmission expansion plan is developed for the Tehachapi area, transmission cost adders should be based on that plan.

## **II. Procedural Background**

In this phase of this proceeding, we have evaluated transmission needs and potential transmission upgrades in the Tehachapi region. The Tehachapi

area was first identified during a March 13, 2001 prehearing conference (PHC) as having transmission constraints. In April 2001, SCE filed a report on transmission problems in the Tehachapi area. At a July 10, 2001 PHC, SCE was directed to send a letter to potential wind developers soliciting expressions of interest in participating in Tehachapi transmission upgrades. At a December 19, 2001 PHC, SCE agreed to prepare a developer-funded conceptual study, based on responses to that solicitation, which would evaluate line routing and develop preliminary cost estimates for Tehachapi upgrades. At a May 15, 2002 PHC, SCE reported that it was refining the conceptual study.

In a January 29, 2003 ruling, the Administrative Law Judge (ALJ) established a schedule, which was later modified, for evidentiary hearings to address the network benefits, contribution to the goals of the RPS program, costs, and ratemaking issues regarding a Tehachapi transmission project. The ALJ also directed SCE to file a schedule indicating the minimum amount of time required to prepare an application for a certificate of public convenience and necessity (CPCN) for Tehachapi upgrades.<sup>1</sup> The ruling also required the utilities to issue a statewide solicitation letter allowing developers to request and fund conceptual studies for transmission related to potential generation projects to address the renewable goals set forth in Senate Bill (SB) 1078.

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<sup>1</sup> SCE indicated in its report filed on February 3, 2003 that the minimum time required to complete a CPCN application, including a Proponent's Environmental Assessment, is one year. SCE explained that the time requirement is driven by the amount of time required to conduct site surveys for the project, which often can be performed only during certain times of the year when particular animal(s) or plant(s) are observable.

Evidentiary hearings were held on June 9–11, 2003. SCE, the ISO, and Oak Creek Energy Systems, Inc. (Oak Creek)<sup>2</sup> presented witnesses and filed opening and reply briefs. PG&E participated in the hearings and filed an opening brief. Oak Creek’s motion for acceptance of its late-filed reply brief is granted. This phase of the proceeding was submitted on July 24, 2003 following the receipt of reply briefs.

Concurrent with its reply brief, Oak Creek filed a motion asking the Commission to take official notice of a CEC committee report entitled “Preliminary Renewable Resource Assessment,” published on July 1, 2003 pursuant to SB 1038. No party filed a response to Oak Creek’s motion. We agree with Oak Creek that the CEC’s assessment of the wind resource potential in the Tehachapi region is relevant to the issues in this proceeding. However, rather than the preliminary committee assessment, we take official notice of the CEC’s completed assessment, entitled “Renewable Resources Development Report,”<sup>3</sup> which was adopted by the CEC on November 19, 2003. The CEC’s renewable resources assessment underlies a transmission plan for renewable resources prepared by the Commission’s Energy Division and submitted to the Legislature on December 1, 2003, as required by SB 1038.

### **III. The Tehachapi Wind Resource Area**

The record indicates that just over 645 MW of wind generation is currently operational in the Tehachapi area, with about 345 MW connected to SCE’s

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<sup>2</sup> Oak Creek is a Tehachapi wind developer which participated in SCE’s 2002 conceptual study.

<sup>3</sup> “Renewable Resources Development Report,” CEC Publication Number 500-03-080F, November 2003.

Antelope-Bailey 66 kV transmission system and just over 300 MW connected to an independently owned 230 kV radial transmission line (commonly referred to as the Sagebrush line).

The Tehachapi area has the potential to meet a significant portion of California's renewable energy goals. In its Renewable Resources Development Report, the CEC reports that the Tehachapi area contains the largest wind resource in California, with undeveloped potential of about 14,000 gigawatt-hours per year (about 4,500 megawatts (MW) of peak capacity). This is the largest renewable resource potential in California, except for solar power installations which the CEC reports are not currently cost-competitive.

In its report, the CEC crafted two "Plausible Resource Scenarios" to describe possible mixes of renewable technologies sufficient to meet the renewable development goals of SB 1078 (20% of electricity sales by 2017) and the Energy Action Plan<sup>4</sup> (20% of electricity sales by 2010). These scenarios assume that the goals will be met by renewable resources located in California or near the border, and take into account technical potential data, the locations of currently proposed projects, cost estimates, and development time. Under each scenario, 4,060 MW of new wind generation would be installed in the Tehachapi area, which would produce about 40% of the renewable generation needed to meet SB 1078 and Energy Action Plan goals.

CEC cost estimates indicate that wind generation may be the most cost competitive of the renewable energy technologies, with projections that wind

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<sup>4</sup> The Energy Action Plan was adopted in May 2003 by this Commission, the CEC, and the California Power and Conservation Financing Authority. (See CPUC website, <http://www.cpuc.ca.gov/static/industry/electric/energy+action+plan/index.htm>).

generation could be cost competitive with a new combined cycle natural gas power plant by 2005. The CEC recognized, however, that its wind cost estimates, while corroborated by recent bidding experience in other states, are significantly lower than recent bids by wind developers in California. The CEC postulated that wind development may be more expensive in California than in other states due to higher land lease rates and generally stricter permitting requirements.

SCE states that its 66 kV network in the Tehachapi area is fully loaded and that SCE would need to construct new transmission facilities in order to connect any new wind generation in that area. Oak Creek reports that approximately 420 MW of Tehachapi wind projects have been successful low bidders for CEC New Renewable Resources Account awards<sup>5</sup> but are waiting to construct, due primarily to a lack of feasible transmission.

We recognize that the amount and timing of Tehachapi wind development may vary significantly from that indicated in the CEC's Plausible Resource Scenarios. The amount of wind development will depend on wind projects' ability to compete in the renewables procurement process. Under the RPS program, bids will be subject to least-cost, best-fit assessments that take into account the expected costs of transmission upgrades if needed to access the new generation. While wind may be a relatively low cost renewable technology, the need to relieve transmission constraints in the Tehachapi area will tend to increase the total cost of Tehachapi power. The intermittent nature of wind power may also affect its least-cost, best-fit assessment. Without prejudging the outcome of the RPS process, we believe it is important that the transmission

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<sup>5</sup> The CEC's New Renewable Resources Account funding mechanism was created by Assembly Bill 1890. Auctions were held in 1998, 2000, and 2001.



planning process does not impede the ability of wind developers to compete fairly in RPS procurement.

#### **IV. Possible Configurations of a Tehachapi Transmission Project**

SCE, the ISO, and Oak Creek presented several alternative configurations and routings of potential Tehachapi upgrades.

SCE's 2002 conceptual study developed reconnaissance-level plans for transmission upgrades sufficient to transport power from 2,500 MW of new wind generation, which is the capacity of potential projects identified by wind developers in response to SCE's 2001 solicitation. According to the results of this conceptual study, wind generation would be delivered by a 66 kV collector system to four new 230/ 66 kV substations. Two new 60-mile double circuit 230 kV lines would transmit the power, with one line terminating at the Pardee substation and the other at the Vincent substation. SCE estimated that this project would cost \$586 million plus right-of-way costs.

SCE's conceptual study suggested that the Tehachapi transmission upgrades be phased to meet the needs of three levels of new wind generation: (a) less than 1,140 MW (the double circuit 230 kV line to the Pardee substation, with one circuit energized initially), (b) from 1,140 MW to 1,400 MW (adding the first circuit of the double circuit 230 kV line to the Vincent substation), and (c) more than 1,400 MW (adding the second circuit of the line to the Vincent substation).

SCE reports that, in addition to the 2,500 MW of wind generation analyzed in the 2002 conceptual study, it received requests for conceptual studies of transmission needs for an additional 770 MW of wind generation in response to

its 2003 solicitation undertaken in response to the January 29, 2003 ALJ ruling. It had not performed those studies at the time of the hearings.

The ISO submits that alternative ways to connect Tehachapi wind generation should be studied before a decision is made regarding which transmission upgrades are preferable. The ISO identified several alternative configurations which it stated may provide regional transmission benefits, in particular, a needed expansion of transmission capacity in the Fresno area, which is served by PG&E. In one alternative, a new substation would be constructed where PG&E's Helms-Greg and SCE's Big Creek-Rector 230 kV lines cross, in order to establish a new phase shifted 230 kV tie between PG&E and SCE. The ISO and SCE report that this could add between 300 and 400 MW of capacity on SCE's Big Creek 230 kV system. Another option would construct a phase-shifted tie-line between SCE's Magunden and PG&E's Bakersfield 230 kV substations, which are five miles apart. This alternative could add a further 300 to 400 MW of capacity. Another alternative would be to add a second circuit to the existing single-circuit Sagebrush 230 kV line, which could add 500 to 1000 MW of capacity.

Oak Creek recommends that certain modifications to the transmission project developed through SCE's 2002 conceptual study be analyzed. One modification would connect the new collector substations in a ring configuration, so that all of the wind generation would have a backup path in case of circuit failure. Other alternatives suggested by Oak Creek would connect the existing Antelope-Bailey 66 kV system to the new 230 kV system, or shift some existing load and wind generation from the existing 66 kV system to the new 230 kV system, as a means of relieving existing reliability problems.

Subsequent to the Tehachapi hearings, the utilities submitted transmission plans in another phase of this proceeding, detailing transmission upgrades that would be needed to accommodate the amounts of renewable generation identified in the CEC's Plausible Resource Scenarios developed pursuant to SB 1038. SCE reported that 500 kV rather than 230 kV transmission system upgrades would be needed to support the 4,060 MW of Tehachapi wind generation identified in the CEC's Plausible Resource Scenarios. SCE estimated that such upgrades could cost \$1.9 billion.<sup>6</sup>

The record demonstrates that large-scale transmission upgrades capable of transporting power from multiple wind projects will be needed if Tehachapi wind is to contribute significantly to California's renewable power goals.

#### **V. Application of § 399.25 and Funding of Tehachapi Transmission Upgrades**

Pub. Util. Code § 399.25,<sup>7</sup> implemented as part of SB 1078 effective January 1, 2003, addresses funding of transmission facilities necessary to facilitate achievement of California's renewable power goals, as follows:

- (a) Notwithstanding any other provision in Sections 1001 to 1013, inclusive, an application of an electric corporation for a certificate authorizing the construction of new transmission facilities shall be deemed necessary to the provision of electrical service for purposes of any determination made under Section 1003 if the commission finds that the new facility is necessary to facilitate achievement of the renewable power goals established in Article 16 (commencing with Section 399.14).

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<sup>6</sup> These results were reported in the transmission plan for renewable resources submitted to the Legislature on December 1, 2003.

<sup>7</sup> All statutory references are to the Public Utilities Code.

- (b) With respect to a transmission facility described in subdivision (a), the commission shall take all feasible actions to ensure that the transmission rates established by the Federal Energy Regulatory Commission are fully reflected in any retail rates established by the commission. These actions shall include, but are not limited to:
- (1) Making findings, where supported by an evidentiary record, that those transmission facilities provide benefit to the transmission network and are necessary to facilitate the achievement of the renewables portfolio standard established in Article 16 (commencing with Section 399.11).
  - (2) Directing the utility to which the generator will be interconnected, where the direction is not preempted by federal law, to seek the recovery through general transmission rates of the costs associated with the transmission facilities.
  - (3) Asserting the positions described in paragraphs (1) and (2) to the Federal Energy Regulatory Commission in appropriate proceedings.
  - (4) Allowing recovery in retail rates of any increase in transmission costs incurred by an electrical corporation resulting from the construction of the transmission facilities that are not approved for recovery in transmission rates by the Federal Energy Regulatory Commission after the commission determines that the costs were prudently incurred in accordance with subdivision (a) of Section 454.

We issued Decision (D.) 03-07-033 establishing procedures to implement § 399.25 on July 10, 2003, after the conclusion of hearings in this phase. We denied rehearing of D.03-07-033 in D.03-10-020.<sup>8</sup>

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<sup>8</sup> SCE has filed a petition for writ of review of D.03-07-033 and D.03-10-020. *Southern California Edison Company vs. Public Utilities Commission of the State of California*, No.

*Footnote continued on next page*

### **A. Positions of the Parties**

Oak Creek asks that the Commission make affirmative findings pursuant to § 399.25 that Tehachapi upgrades are necessary to achieve renewable power goals and would provide benefit to the transmission network. Oak Creek claims network benefits both in correcting existing deficiencies and in accommodating new wind generation. Oak Creek points to on-going voltage/ reactive power problems in the Tehachapi area, which have caused both wind generation curtailments and customer outages. Oak Creek maintains that a Tehachapi project would resolve the existing deficiencies and, because Oak Creek anticipates operation in parallel with the existing grid, would enhance operation of the entire grid. Oak Creek submits that the costs of at least the first 230 kV line should be rolled-in and recovered through transmission rates. It recommends that the Commission direct SCE to submit transmission rate filings to the Federal Energy Regulatory Commission (FERC) to implement cost roll-in.

The ISO, SCE, and PG&E respond that reliability problems in the Tehachapi area are already being addressed. The ISO acknowledges that recent upgrades to the 66 kV system to provide additional reactive power (VAR) support and increase the deliverability of wind generation have not been as successful as had been hoped and that Tehachapi wind generation continues to be curtailed sporadically. SCE explains that it has not been able to determine the needed level of VAR support because it has lacked certain technical data regarding existing wind generation.

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B171050, Court of Appeal of California Second Appellate District, Division One. On April 27, 2004, the Court granted the petition. Oral argument is scheduled for July 20, 2004.

The ISO, SCE, and PG&E assert that the Commission should not determine at this time whether a Tehachapi project is necessary to meet renewable power goals, whether such a project would provide network benefits, or the appropriate ratemaking treatment. These parties maintain that essential information necessary for such determinations will not be available until an RPS auction is completed, winning bidders are selected, interconnection applications are submitted, detailed system impact and facilities studies are performed, and alternatives are examined. SCE recommends, however, that the Commission take this opportunity to adopt a plan for implementing what SCE calls the “protective backdrop” in § 399.25(b)(4) to ensure that a utility is able to promptly recover costs in retail rates if FERC does not approve recovery of prudently incurred costs in wholesale transmission rates.

The ISO explains that, under current policies, ratemaking treatment depends on the nature of a transmission project. If the ISO determines that a transmission network upgrade is needed for reliability or economic reasons, the transmission owner pays for the upgrade and recovers its costs through transmission rates, assuming FERC accepts inclusion of those costs in the transmission owner’s transmission revenue requirement. The ISO reports that FERC’s policy has been that generators fund transmission network upgrades necessary to accommodate interconnection of new generation projects. Transmission owners may credit back to generators the cost of such upgrades, with cost recovery within five years if the project becomes and remains operational. Generators fund transmission facilities from the generating plant to the point of interconnection with the transmission grid (called “gen-ties”) and also fund all studies required for the interconnection process.

Because a large Tehachapi project would be far more expensive than needed to correct existing reliability problems, the ISO and SCE assert that there is no reliability-based justification for rolling costs of such upgrades into transmission rates. The ISO recognizes, however, that rolled-in treatment may be justified if a project allows a utility to meet its RPS requirements in the most economic manner.

SCE takes the position that developers should pre-fund any Tehachapi upgrades used to connect new wind generation so that ratepayers and utility shareholders do not bear the financial risks. SCE maintains that this approach is consistent with FERC policy for network upgrades needed due to new generation. SCE also suggests that FERC may classify Tehachapi upgrades as gen-tie rather than network facilities,<sup>9</sup> with a resultant requirement of developer funding. SCE submits that FERC initially classified transmission facilities to Diablo Canyon, Morro Bay, and Moss Landing generation as gen-ties even though the transmission facilities provide network loop configurations.<sup>10</sup>

## **B. Discussion**

Section 399.25 requires that a certificate application for new transmission facilities be deemed necessary to the provision of electrical service if

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<sup>9</sup> In testimony, SCE suggested that the first double-circuit 230 kV line identified in its conceptual study for the Tehachapi area could be classified as a gen-tie because of its radial configuration, but contemplated that the second double-circuit 230 kV line would be network facilities because it would be looped into the network. SCE asserted in its briefs that all Tehachapi upgrades may be deemed to be gen-ties.

<sup>10</sup> Subsequently, in Orders 466 and 466-A, FERC reversed its presiding ALJ's Initial Decision on this issue and approved PG&E's classification of these facilities as network transmission facilities rather than gen-ties.

the Commission finds that the new transmission facility is necessary to facilitate achievement of renewable power goals. As we explained in D.03-07-033, § 399.25 provides the possibility of upfront ratepayer funding for new transmission facilities that the Commission determines are necessary to facilitate achievement of renewable power goals. With this arrangement, the utility would finance the transmission project and would request that FERC authorize cost recovery through transmission rates. Under this scenario, ratepayers would fund the costs, either in transmission rates authorized by FERC or in retail rates authorized by this Commission pursuant to § 399.25(b)(4). It is noteworthy that even if generators pay for transmission upgrades upfront, ultimately, ratepayers will pay through rates for any such investment deemed necessary, as per current FERC policy. Thus, the issue is who bears the initial risk of the investment, not necessarily who pays for it.

Contrary to some parties' assertions, a Commission order directing a utility to seek cost recovery through general transmission rates pursuant to § 399.25(b) for Tehachapi upgrades would not be inconsistent with FERC's current interconnection policies and would not trespass on FERC jurisdiction over interconnection agreements. FERC's Order 2003<sup>11</sup> provides independent transmission providers, such as the ISO,<sup>12</sup> flexibility regarding their

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<sup>11</sup> Docket No. RM02-1-000, Order No. 2003, 104 FERC ¶ 61, 103, July 24, 2003.

<sup>12</sup> The Commission and the California Electricity Oversight Board have filed petitions for review of FERC orders finding that the ISO Board does not meet the independence requirements of FERC Order No. 2000 governing regional transmission organizations. *Public Utilities Commission of the State of California and California Electricity Oversight Board vs. Federal Energy Regulatory Commission*, Nos. 02-1287 et al. (Consolidated), Court of Appeals District of Columbia Circuit. Oral argument is scheduled for May 17, 2004.



interconnection and pricing provisions, subject to FERC approval.<sup>13</sup> In both Order 2003 and in its white paper issued in its Standard Market Design rulemaking, FERC has invited the formation of Regional State Committees and FERC has made it clear that states' will have transmission-related decision-making authority in their ISOs or RTOs. This Commission will take all needed actions, as directed by § 399.25, to obtain FERC approval of the inclusion in transmission rates of costs of transmission facilities funded by the utilities to fulfill RPS goals. We have the reasonable expectation that FERC will approve actions we may take as we proceed with our statutory mandate to implement § 399.25.

Section 399.25 applies only to applications for a certificate authorizing construction of new transmission facilities. It would not apply to facilities that are not constructed by a utility and thus are not brought to the Commission for certification. An assessment of whether Tehachapi upgrades should be constructed by a utility or treated as gen-ties to be built by project developers may depend on the configuration of the facilities and their relationship to particular renewable projects. As a result, it would be premature for us to reach conclusions at this time regarding the proper classification of such facilities. We note that, while gen-ties built by project developers would not be eligible for upfront ratepayer funding under § 399.25, they may be eligible for supplemental energy payments consistent with § 399.15(a)(2).

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<sup>13</sup> FERC explained that this flexibility is appropriate based on its view that an ISO or Regional Transmission Organization (RTO) is less likely than a transmission provider that is a market participant to act in an unduly discriminatory manner.

In D.03-07-033, we determined that the Commission generally will make § 399.25 findings in the applicable CPCN or permit to construct (PTC) proceeding, based on the results of the RPS procurement process and General Order 131-D considerations of alternatives to the proposed project. Based on the record before us, including the CEC study, however, we can already reach a preliminary determination that some Tehachapi upgrades are necessary to facilitate achievement of renewable power goals. Since the Tehachapi area represents a significant cost-effective source of renewable power in California and the area has only sufficient transmission capacity to meet the power transfer needs of the existing resources in the region, it is foreseeable that transmission upgrades in the area will be necessary to meet California's RPS goals. The exact nature of the upgrades and the resource potential must still be established to determine if all of the resources can be developed in a way that is cost-competitive, taking into account transmission costs, and that Tehachapi projects are consistent with a best-fit procurement strategy. However, the need for Tehachapi upgrades has been developed sufficiently to allow us initially to determine for purposes of § 399.25(b)(1) that the first phase of Tehachapi network upgrades would provide benefit to the transmission network. The size and concentration of the Tehachapi wind resource leads us to the conclusion that there is an overall need for transmission upgrades in this area, even as we evaluate the particular needs of various segments of the upgrades in individual proceedings, consistent with D.03-07-033.

The need determinations in individual CPCN proceedings will relate to the particular projects and upgrades associated with that specific proceeding. In this decision, we are making an initial need determination overall with respect

to the necessary contribution of Tehachapi wind in general to meeting RPS goals. Thus, these need determinations are separate and severable.

When a utility files a certificate application for Tehachapi upgrades, we will consider at that time the exact ratemaking treatment contemplated under § 399.25 and will also address project financing, as well as any additions to the record regarding need, as necessary. The Commission is very aware of its cost recovery authority under § 399.25 (b)(4) and will use that authority, as necessary, in such a consideration.

Because § 399.25 requires that the Commission determine that a certificate application is needed if we find that the transmission facilities are necessary to facilitate achievement of renewable power goals, a separate assessment of whether the project brings reliability or economic benefits would not be required for certification purposes. Thus, the issues raised in Rulemaking (R.) 04-01-026 regarding the assessment of reliability or economic need for new transmission projects do not pertain to findings of need pursuant to § 399.25.<sup>14</sup>

We decline to establish general policies at this time, as SCE requests, regarding how § 399.25(b)(4) would be implemented if FERC denies cost recovery for transmission projects for which the utility has sought cost recovery pursuant to § 399.25(b)(2). Whether FERC would deny such cost recovery is speculative at best and we believe that FERC will look favorably on transmission development designed to further renewable resource goals. Further, if FERC

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<sup>14</sup> In R.04-01-026, we are examining the ISO's methodology for assessing reliability need for new transmission projects and whether the Commission should defer to the ISO's assessment of whether a new transmission project is needed for reliability or economic reasons.

were to disallow the recovery of such costs in transmission rates, the appropriate way to reflect such costs in retail rates using our authority in § 399.25 (b)(4) may depend on the specific facts of the situation. Thus, we see no need to develop contingency procedures for implementing § 399.25(b)(4) at this time.

However, our choice today not to develop a general methodology should not be interpreted as an unwillingness to use this authority granted in SB 1078. On the contrary, we are inclined to use such ratemaking authority if FERC were to deny cost recovery. We believe this would likely be a fair approach given that the Commission is taking forward-thinking action in this decision to meet the goals of a public policy decision on renewables that is important to Californians, as articulated in SB 1078. As such, ratepayers must be ready to shoulder some of the burden of the risks inherent in moving towards the RPS goals.

## **VI. Transmission Planning for the Tehachapi Area**

### **A. Positions of the Parties**

The ISO, SCE, and PG&E take the position that a Tehachapi transmission project should proceed using established procedures, with project design finalized only after wind projects have submitted interconnection requests and have committed to fund the transmission upgrades. These parties contemplate the following sequence: an RPS auction is held, least-cost, best-fit resources are determined, winning bidders are selected, and developers submit interconnection applications. Each generation project submitting an interconnection application would then be assigned a place in the ISO interconnection queue, and the generator or the transmission owner would perform system impact and facilities studies to identify needed transmission upgrades based on the generator's place in the ISO queue. If Tehachapi network

upgrades are found to be needed for winning bids that have submitted interconnection agreements, SCE would then prepare and file a CPCN application.

These parties maintain that new utility-funded transmission into the Tehachapi area would be a waste of ratepayer money if Tehachapi wind generators do not win RPS bids and build their projects. PG&E asserts that the proposed sequencing would not impede wind development, arguing that a developer likely will be able to finance its generation project once it has won an RPS bid and has a power contract, and that construction of a generator's project may proceed while transmission is being built.

Oak Creek argues that current transmission planning processes stymie wind development and that SB 1078 and SB 1038 intended to change the process for interconnecting renewable resources. Oak Creek submits that a wind project-by-wind project approach to transmission planning does not recognize the large amount of wind potential in a concentrated area, which could be accessed by both PG&E and SCE. Oak Creek maintains further that the current transmission planning approach would delay completion of needed transmission facilities and would not allow wind developers to develop projects on the timeline demanded by the Legislature in SB 1078.

Oak Creek asserts that the Tehachapi resource potential provides a sufficient basis for planning comprehensive transmission upgrades, with phases built as needed. Oak Creek maintains that there is no practical or legal need to wait for RPS bid results to proceed with Tehachapi upgrades, since most of the upgrades would not be wind project-specific, with only gen-tie lines specific to individual wind projects. Oak Creek states that the view that a Tehachapi upgrade should not go forward until there are winning RPS bids makes sense

only if one believes that none of the winning bids will come from the Tehachapi region. Oak Creek maintains that the CEC's heavy reliance on Tehachapi wind in its Plausible Resource Scenarios disproves this belief. Pointing to the routine use of cost projections in rate cases based on future test years, Oak Creek argues that regulation does not insist on certainty and that it is inappropriate to delay Tehachapi upgrades until there is certainty regarding which wind projects will use the added transmission capacity.

Oak Creek recommends that the Commission create a study group consisting of SCE, PG&E, the ISO, and wind developers, and chaired by the ISO. The study group would address transmission needs of the entire Tehachapi region rather than individual wind projects, and would produce either a consensus plan for the needed upgrades or a list of alternative plans. Each plan would provide a phased approach, which could correct existing transmission deficiencies and provide transmission for specified increments of new wind generation. Oak Creek recommends that the study group complete its work within four months and that SCE be required to submit a CPCN application within four months after completion of the study group process. If the study group does not produce a consensus plan, SCE's CPCN application would be required to include each of the study group's alternative plans. The Commission's CPCN order would make the findings required by § 399.25. SCE's obligation to construct the upgrades would be contingent upon the identification of winning RPS bids in a minimum amount consistent with each plan increment. Oak Creek concludes that its approach would create the equivalent of a "batched" result without requiring the generators or SCE to engage in difficult group formation activities. It would also allow the RPS bidding process and the CPCN process to proceed in parallel rather than serially.

SCE and PG&E oppose Oak Creek's suggestion that transmission planning procedures be modified for Tehachapi wind generation, asserting that, in enacting SB 1078, the Legislature made no distinction among types of renewable generation and did not grant special consideration to any specific geographic area. These parties submit that preferential treatment for Tehachapi developers would be unfair and detrimental to developers in other areas.

SCE contends that planning a Tehachapi transmission project in the absence of interconnection applications and developers willing to fund the project would be difficult, if not impossible, under current interconnection tariffs. SCE points out that its interconnection process does not preclude generators from coordinating together, filing one interconnection application, and agreeing among themselves how to share transmission upgrade costs. SCE maintains, however, that it cannot unilaterally postpone and batch the processing of interconnection applications, cannot share one applicant's information with other generators without prior consent, and cannot mandate cost sharing arrangements counter to its tariffs. SCE argues further that the Commission has no jurisdiction to require batch processing since FERC has jurisdiction over interconnection applications.

SCE states that it supports regional transmission planning but that the Commission should not require a separate Tehachapi study group process. SCE points out that it is required to study alternatives in conjunction with a CPCN application and argues that the proper forum for Commission consideration of alternatives is the CPCN application and related hearings.<sup>15</sup> SCE also explains

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<sup>15</sup> SCE points to a stipulation it reached with the ISO, agreeing that (1) utilities present transmission alternatives for ISO consideration in the context of either a generator

*Footnote continued on next page*

that the ISO considers alternative transmission arrangements as part of its review of proposed transmission projects. SCE commits that it will study alternative Tehachapi configurations described by other parties in this phase, but cautions that such alternatives may not appear in the CPCN application if they are found to be inferior to other alternatives.

SCE maintains that a CPCN application cannot be completed in four months as Oak Creek requests. SCE reports that it has begun environmental studies based on the 2002 conceptual study, to expedite preparation of a CPCN application. However, environmental assessments could take a minimum of a year to complete if other routes are chosen. In addition, SCE states that, before a CPCN application could be filed, it would need to know, among other things, project sponsors, the specific amount and location of the proposed generation, electrical characteristics of the new generating facilities, and the results of system impact and facilities studies. Detailed rights-of-way reviews, identification of technical and routing alternatives, and mitigation measures would also be required. SCE states that potential line routes and substation locations could change depending upon which wind projects actually go forward.

SCE argues that inclusion of multiple transmission plans in a CPCN application, as Oak Creek suggests, would waste “vast amounts” of ratepayer dollars, because such an approach would require separate environmental and engineering studies for each plan and the required alternatives for each plan, to the extent they do not overlap.

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interconnection application or the annual transmission expansion planning process and (2) alternatives should be presented to the Commission through a CPCN application.



The ISO agrees with Oak Creek that Tehachapi upgrades should be phased to match the development of additional wind in the Tehachapi area. It also supports Oak Creek's recommendation that a study group of relevant parties be created to assess Tehachapi transmission alternatives, stating that this recommendation is largely consistent with the ISO witness' recommendation that SCE, PG&E, and the ISO undertake a joint analysis of alternatives including linkage with the PG&E transmission system. Because of concerns that SCE might not adequately consider regional alternatives, the ISO maintains that studies of alternatives should be undertaken cooperatively with an adequate opportunity for input by all affected entities. The ISO believes that a review of alternatives should take place before environmental studies are undertaken, in order to avoid spending resources to evaluate the environmental impacts of alternatives that may ultimately be found to be infeasible for other reasons. Because the ISO's tariff provides that interconnecting generators pay for system impact and facility studies, the ISO states that, if an analysis of alternatives takes place before an interconnection request, there would have to be agreement on the allocation of study costs.

During the hearings, Oak Creek raised what it called a "Catch 22" or "chicken-egg" concern regarding the RPS process if developers must include estimates of transmission costs in their RPS bids but the transmission provider does not estimate transmission costs until after an RPS bid is selected and an interconnection application submitted. However, Oak Creek recognized in its opening brief that the requirement established in D.03-06-071 that proxy transmission costs be developed for bidders without completed cost estimates is responsive to this concern.

## **B. Discussion**

The current transmission planning process evaluates transmission needs on a project-by-project basis for new generation projects that have progressed to the point of submitting interconnection requests. This approach may be well-suited for large generation projects or for projects that are not sited near other new projects. However, it is seriously flawed for the Tehachapi area and potentially for any other areas where generation from multiple relatively small projects would be transported most economically over shared transmission upgrades. The current transmission planning approach impedes identification and timely construction of the most cost-effective Tehachapi upgrades. In addition, the practice of assessing all of the costs of an upgrade to the first generator whose output may trigger need for the upgrade could impede development of a cost-effective renewable resource area as was clearly recognized in SB 1078 and § 399.25.

SCE asserts that wind generators could coordinate to file a single interconnection application for multiple generation projects, pointing out that a group of wind developers joined together to sponsor and fund SCE's 2002 conceptual study. However, a joint undertaking for construction of major transmission upgrades would be much more complicated and could entail significantly more risk than co-sponsoring conceptual studies. As an example, if one member of a developer consortium dropped out, this could raise questions about whether the transmission project design would have to be redone for the remaining developers. With developer funding, as SCE advocates, the remaining members could be required to pay more than anticipated for their respective shares of the upgrades. While utility financing would alleviate this latter concern, a requirement that Tehachapi developers enter into consortia to sponsor

transmission upgrades could still impede timely development of cost-effective transmission upgrades.

SCE maintains that it could not unilaterally choose to batch process interconnection applications. We note, however, that FERC's new standard interconnection agreement appears to allow batch processing, in that it would allow a transmission provider to establish what it calls a "queue cluster window" for conducting interconnection system impact studies.<sup>16</sup> Thus, any impediment to batch processing appears to lie in existing interconnection tariffs rather than in FERC policies.

The design of transmission upgrades based on batch processing of generation projects, whether initiated voluntarily by developers or undertaken pursuant to tariffed provisions as provided in FERC's new standard interconnection agreement, would appear to be an improvement over the current project-by-project approach. However, even on a batched basis, transmission planning for resource-rich areas such as the Tehachapi region that focuses only on the transmission needs of projects that have submitted interconnection requests would still be sub-optimal because it would not take advantage of economies that would be realized if transmission upgrades are sized to meet multi-year transmission needs as additional generation is constructed.

Construction of a new transmission upgrade in the Tehachapi region following each RPS auction to meet just the needs of that year's winning bidders could result in piecemeal transmission additions, thus inflating total transmission costs and potentially increasing environmental impacts. To the

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<sup>16</sup> Order 2003 at ¶¶ 153-156.

extent this approach needlessly increases Tehachapi transmission costs, Tehachapi projects would be at an unfair disadvantage and potentially could be priced out of the RPS process. In addition, the total cost of renewables procurement could increase to the detriment of consumers.

We conclude that transmission planning for the Tehachapi area, and potentially for other areas with similar characteristics, should be modified to avoid these deleterious outcomes. In order for upgrades in the Tehachapi area to be most cost-effective and least environmentally disruptive, a comprehensive Tehachapi transmission development plan should be prepared. This plan should provide for an orderly and logical expansion of the transmission system based on the magnitude of the wind resource identified by the CEC, engineering and cost considerations, and recognition of other relevant factors including statewide transmission needs and other possible benefits associated with transmission upgrades. Rather than giving an unfair benefit to Tehachapi generators, as SCE claims, a comprehensive transmission development plan will correct existing flaws that may impede the cost-effective development of renewable projects in the Tehachapi area.

We agree with the ISO and Oak Creek that the comprehensive transmission development plan should provide for a phased expansion, and believe that a logical first phase is already evident from SCE's conceptual study work. The subsequent phases, rather than being tailored to a pre-specified group of generation projects, would reflect the next logical expansion step, and should be sufficient to meet transmission needs of several years' RPS bid winners. The record was not developed sufficiently to make such a determination, but the interconnection of PG&E and SCE transmission systems, as suggested by the ISO, may also be a logical, cost-effective step that could provide statewide

benefits and allow wind development to proceed. We see no reason, however, that upgrades to the SCE system could not proceed in parallel with evaluation of potential interconnection between SCE and PG&E.

We require that a collaborative study group be convened to produce the comprehensive development plan for phased expansion of transmission capability in the Tehachapi area. Commission staff should coordinate the study group, assisted by the ISO as needed and with participation by SCE, PG&E, wind developers, and any other interested parties. We encourage the CEC to participate in the collaborative study process. Study group coordinators should notify all potential interested parties, including the Department of Defense, the counties of Kern and Los Angeles, the Los Angeles Department of Water and Power, and owners of the Sagebrush line, and provide them an opportunity to participate. We envision the study group to function in a manner similar to the Southwest Transmission Expansion Planning (STEP) process.

In parallel, we require SCE to prepare a formal CPCN application for the first phase upgrades as identified in its 2002 conceptual study (identified therein as Phase A), with any refinements included in its subsequent conceptual study submitted in this proceeding. In the 2003 study, SCE provides for two options: a 230 kV option and a 500 kV option. In this decision, we do not specify the option that SCE should choose, but do note an initial preference for the 230 kV alternative, both because SCE presents it as more scalable and because the cost associated with this alternative is considerably lower than for the 500 kV option. However, SCE should determine, in collaboration with the study group preparing the comprehensive plan, the most prudent first phase option to be submitted for a CPCN. Thus, we decline to specify more details on the exact nature of phase one. We do require, however, that it be scalable, flexible, and

modular. It should also be planned with sufficient capacity to accommodate the projects that have already submitted interconnection requests.

Since SCE indicates that work has already begun on the environmental assessments for this first phase based on its 2002 conceptual study, the CPCN application should be submitted no later than six months after the effective date of this decision, in parallel with the study group determinations, as described below.

The study group and SCE should commence their work immediately, without waiting for RPS solicitations, the submission of interconnection agreements, or the filing of a CPCN application. Study group work may be informed by the RPS process, to the extent RPS results become available during the group's efforts. SCE, the ISO, and any Tehachapi developers pursuing interconnection under existing procedures should inform the study group of their progress and should provide a copy of any completed System Impact Studies and Facilities Studies, so that the study group may take into account and complement such efforts.

The study group should assess a full range of alternative configurations for Tehachapi upgrades, including SCE's 2002 conceptual study results, alternatives identified in this phase, SCE's transmission plan submitted in the phase of this proceeding related to the SB 1038 renewables transmission plan, and any other alternatives that the study group may develop. It should take a statewide approach, looking, e.g., at alternatives that could connect the SCE and PG&E systems as the ISO has suggested. The study group should assess the extent to which each alternative configuration would assist in the transport of power to companies other than SCE in order to meet their RPS goals. This is a particularly important consideration since SCE may meet its RPS goals

before other companies do, and may not itself need to procure all of the cost-effective Tehachapi power that may become available.

The study group should develop a phased plan that, ultimately, could accommodate the full Tehachapi wind resource potential identified by the CEC. The first phase project design should be responsive to any unresolved reliability concerns of the existing transmission system. Transmission line routes and substation locations should be informed by currently proposed wind projects but should also be designed to accommodate other wind development in the area, based on knowledge regarding desirable wind locations. In its recommendations, the study group should identify the expected demarcation between gen-ties and network transmission facilities to the extent feasible. SCE should do the same in its CPCN application for the first phase.

We urge the study group to develop a single proposed transmission development plan, at least for initial portions of the phased upgrades. The first phase should be identified by SCE in its parallel development of a CPCN application. If a consensus does not emerge, the study group should explain clearly the factors that would influence a choice among any alternative proposals it makes.

The study group should assess how much wind capacity each phase of the proposed upgrades could transport. The study group should develop recommendations regarding the procedures whereby each phase of the upgrades would be triggered after the first phase, e.g., the receipt of winning RPS bids of specified magnitudes. We expect that this issue would be addressed further in assessing the need for Tehachapi upgrades, either in this proceeding or in the

context of specific certificate application(s).<sup>17</sup> We contemplate that certificate applications would be filed in an orderly fashion in anticipation of the receipt of winning RPS bids that would need the capacity of each phase of the proposed upgrades.

As components of a comprehensive Tehachapi transmission development plan, separate transmission projects will likely emerge which would require a series of certificate applications. Particularly if SCE and PG&E transmission systems are interconnected as the ISO suggests, different entities may own different portions of the upgrades. If a new transmission line is contemplated as a separate phase of Tehachapi development, that line would require a separate application. To comply with California Environmental Quality Act (CEQA) requirements, a Proponent's Environmental Assessment (PEA) will be required for each application, beginning with the first CPCN application required from SCE by this decision. To comply with CEQA, PEAs accompanying an application should contemplate the maximum reasonably foreseeable buildout for the utility-owned assets, e.g., a double circuit line even if only one circuit is planned to be energized initially and even if the CPCN application requests authorization for only the first circuit. The study group should address how long it would take for the anticipated transmission owner to prepare and file each of the needed certificate applications based on the study group recommendations. In addition, Commission staff involved in the study group should investigate the feasibility of developing a program-level environmental impact report (EIR) on the basis of the study group's findings. If

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<sup>17</sup> The discussion in this section applies to both CPCN and PTC applications.



such an EIR were prepared, applications for subsequent phases of the buildout would need only incorporate the environmental impacts of that specific phase of the project.

In the course of its first-phase CPCN application, SCE should provide cost estimates for the proposed upgrades, which may assist in the development of transmission cost adders for RPS bids. We note that work has begun in this proceeding on development of transmission cost adders for the first RPS auction. It is not our intent that RPS auctions be delayed pending these results.

The study group should also address whether the transmission planning approach adopted for the Tehachapi area should also apply in other areas of the state with renewable resources. We note that the transmission plan for renewable resources prepared by Energy Division indicates a need for new high voltage transmission lines in several counties if renewables development proceeds consistent with the CEC's Plausible Resource Scenarios.

Wind developers paid the cost of SCE's 2002 conceptual study, and the ISO and SCE suggest that wind generators should also be required to pay the cost of further studies of this nature. Oak Creek recommends to the contrary that study group costs be recoverable from all customers since all customers benefit from the state renewable mandate. Consistent with our understanding regarding the STEP process, each participant in the study group should bear its own costs.

The study group should prepare a report containing its findings and recommendations. SCE should file the study group report in this proceeding within nine months following the effective date of this order, with service to all parties. All parties may file comments on the study group report within 21 days after SCE files it, and may file reply comments within 14 days after initial comments are due, as specified in this order.

Oak Creek recommends that the Commission adopt an expedited CPCN process for transmission or distribution facilities that may be necessitated by a specific generator but that are not considered to be a gen-tie, with a requirement that SCE file a CPCN application for such construction within four months of receiving a written request from a generator. We will not impose a four-month time limit on the filing of such a CPCN application, since environmental studies may require a year to complete, as SCE has explained. Nor can we bypass or shortcut CEQA requirements as Oak Creek suggests. We do expect SCE, and potentially PG&E and SDG&E, to proceed expeditiously with preparation of certificate applications, whether in response to study group recommendations or upon individual developer request. In addition, we require all three utilities, as part of this proceeding, to file quarterly updates on the status of such requests, including a list of major milestones and project timelines and whether these have been met (and, if not, an explanation and description of what actions are being taken to remedy any delay).

We agree with SCE that Tehachapi wind development should not receive special treatment in the RPS process, in that the costs of needed transmission upgrades should not be masked or other steps taken to give Tehachapi developers an unfair advantage. However, the problems we have identified with current transmission planning extend to the RPS process. Improper inflation of transmission costs assigned to projects in the Tehachapi area, or other similarly situated areas, could impede such projects' ability to compete fairly in the RPS process and could skew the least-cost, best-fit ranking, to the detriment of both developers and consumers.

After a comprehensive transmission expansion plan is developed for the Tehachapi area, transmission cost adders should be based on that plan,<sup>18</sup> taking into account any System Impact Studies and/ or Facilities Studies as they are developed for Tehachapi projects.

## **VII. Comments on Proposed and Alternate Proposed Decision**

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with § 311(d) and Rule 77.1 of the Commission Rules of Practice and Procedure. SCE, PG&E, the California Wind Energy Association and Oak Creek (CalWEA/ Oak Creek), and PPM Energy, Inc. (PPM) filed comments. CalWEA/ Oak Creek filed reply comments. We have made various clarifications and corrections to the order in response to these comments.

In its comments, SCE points to two Tehachapi projects that it reports are pursuing interconnection under existing FERC tariffs, as an indication that the present transmission planning process is working well and should not be changed. PPM identifies itself as one of those projects. PPM concurs with the proposed decision that a collaborative study of the transmission needs of the Tehachapi resource area would be a useful transmission planning tool. It cautions, however, that undertaking such a study should not delay or stop transmission upgrades that may be undertaken in the meantime to serve wind projects proceeding under the existing ISO and utility tariffed interconnection procedures. We agree with PPM on this point.

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<sup>18</sup> We are considering the development of transmission cost adders in another phase of this proceeding.

While the fact that two wind projects are pursuing interconnection in the Tehachapi region is good news, this does not allay our concerns regarding flaws in the current transmission planning process for the region. Many more projects are waiting in the wings. We concur with the general approach taken in the proposed decision, but make certain changes as described below.

SCE and PG&E take issue with the proposed decision's determination that Tehachapi upgrades used to carry power from multiple projects should be classified as network transmission facilities and funded by the transmission owner. CalWEA/ Oak Creek supports the proposed decision in this regard but asks that the Commission adopt criteria or make specific findings regarding the identification of which upgrades are in fact network facilities. We have modified the discussion in this regard.

SCE suggests that various third parties would have interests in the work of the Tehachapi study group and that the Commission should encourage their participation. We agree that all potential interested parties should be provided an opportunity to participate in the study group.

CalWEA/ Oak Creek asks that the Commission direct the study group to analyze and quantify network benefits in addition to costs of the transmission plans it considers. We agree that the Tehachapi study group should consider whether alternative transmission configurations, such as those suggested by the ISO during the hearings, may bring benefits in addition to providing for the transport of wind energy from the Tehachapi region. However, quantification of the economic value of such benefits is not a feasible task to impose on the study group. The ISO has been working for some time on developing a methodology for assessing the economic benefits of transmission upgrades. This difficult task is properly being considered in another phase of this proceeding.

PG&E recommends that the Commission either require that renewables developers fund the transmission studies needed by the study group or provide for recovery of such costs through the “backstop” mechanism in § 399.25(b)(4). PG&E requests that, if ratepayers are required to fund the studies, the costs be included in transmission cost adders for RPS bids from Tehachapi-area generators. CalWEA/ Oak Creek disagrees with PG&E, maintaining that all ratepayers will benefit from Tehachapi reinforcements, especially if such upgrades connect SCE and PG&E systems as suggested by the ISO. We affirm that, consistent with the STEP process, each participant in the study group should bear its own costs. The collaborative study group approach we adopt for the Tehachapi area is an integral part of a rational transmission planning process needed to further the state’s RPS goals, and may be replicated elsewhere in the state if warranted. Because the study group will examine resource area and statewide needs, it would not be appropriate to assess its costs on individual generators, either directly or through transmission cost adders. Further, contrary to PG&E’s suggestion, § 399.25(b)(4) is not applicable since there is no transmission project subject to § 399.25(b) for which FERC has declined cost recovery through transmission rates.

SCE objects to the proposed decision’s expectation that CPCN applications may be filed before there are winning RPS bids that would need the capacity of the proposed upgrades. SCE continues to maintain that the design of any transmission facility for which a CPCN application is submitted must be based on the needs of generators that have submitted interconnection applications. SCE submits further that it may not be able to file a complete CPCN application within six months of the study group’s report even if the group selects a project consistent with SCE’s existing conceptual studies, since final environmental

assessments cannot occur until siting is established. CalWEA/ Oak Creek supports the proposed decision's requirement that SCE prepare a CPCN filing, but requests that the Commission make clear that this requirement is not intended to favor the design SCE offered in this proceeding. We affirm, as a general principle, that the certificate process should proceed without waiting for winning RPS bids that would need the planned capacity. Information regarding the viability of individual renewable projects will be an important consideration but not necessarily a determining factor as we evaluate the need for transmission upgrades. Because of our desire that planning for Tehachapi upgrades not be further delayed, we have modified the proposed decision's timeline to require SCE to file a certificate application for the first phase of the Tehachapi upgrades six months from the date of this order.

CalWEA/ Oak Creek supports the proposed decision's provision that would require that transmission cost adders used in assessing RPS bids be based on a project's pro rata share of transmission upgrade costs. PG&E agrees that some form of pro rata allocation may be appropriate for the Tehachapi area and perhaps other areas as well. We have modified the related discussion to reflect that an interim methodology for consideration of transmission costs in assessing RPS bids is being developed in another phase of this proceeding.

An alternate proposed decision by President Peevey in this matter was mailed to the parties in accordance with Rule 77.7 of the Rules of Practice and Procedure on May 26, 2004. Comments were filed by PPM, CAISO, SCE, PG&E, and CalWEA/ Oak Creek on June 1, 2004. Reply comments were filed by SCE, PPM, and CalWEA/ Oak Creek on June 4, 2004.

We have made changes in the text of this decision to respond to specific comments on the alternate proposed decision as well. We also summarize them briefly below.

PPM is concerned that our ordering SCE to submit a CPCN for a first phase of Tehachapi transmission upgrades may hinder interconnection of projects already in progress. We clarify that our intent is for SCE to include those projects with interconnection requests already in progress in its first phase CPCN, taking advantage of work already complete. Thus, SCE should continue to proceed expeditiously with projects already in progress, including those that would be subsumed as part of the first phase CPCN.

The ISO points out that interconnection between Tehachapi and the PG&E system may also be a viable alternative to consider. Our intent is that that option be considered by the study group in addition to the upgrades that we can already foresee are needed on the SCE system simply by the existing projects already at various phases in the interconnection process. Thus, these efforts can proceed in parallel and it may be that both parts are needed, but we do not prejudge that outcome, pending submission of the study group report.

In addition, we find no reason that SCE cannot submit the first phase project to the ISO for review in advance of filing their CPCN with the Commission. This will also give the ISO the ability to review SCE's particular proposed configuration and technical specifications, which was another ISO concern.

SCE objects to the determination in this decision that Tehachapi upgrades are needed, citing our previous decision (D.03-07-033) that need determinations would be done in individual CPCN applications. We clarify, however, that because of the size and concentration of the renewable resource in the Tehachapi

area, the Tehachapi situation is unique. We are making an initial overall determination that a first phase of transmission upgrades is needed in this area, without reaching a determination on the particular configuration proposed in an individual CPCN. This is in no way inconsistent with D.03-07-033, which simply states that need determinations should be supported by an evidentiary record, of which we have an extensive one in this docket, composed of one comprehensive CEC study and two SCE studies, both subjected to review through the Commission's evidentiary process.

Finally, SCE raises technical considerations with regard to the options for the first phase build-out. We clarify that we are leaving it to the discretion of SCE, in consultation with the study group, to decide the configuration and project details to propose in its CPCN. This decision gives commission guidance, but allows SCE to come forward with the project that, in their best judgment, meets the criteria for scalability, modularity, and flexibility outlined in this decision.

PG&E generally agrees with SCE, but also suggests that we should establish a memorandum account for tracking RPS-related costs. We are favorably inclined toward this idea, but suggest that it be raised and fully developed in the RPS proceeding (R.04-04-026).

CalWEA and Oak Creek, filing joint comments, generally support the decision. They ask that we direct SCE to open a "cluster" window for additional interconnection requests to be included in the first phase upgrade. We decline to do so since this could delay SCE's filing of its first phase project application. We also clarify some of our ratemaking language in response to the CalWEA/ Oak Creek comments.



### **VIII. Assignment of Proceeding**

Loretta M. Lynch is the Assigned Commissioner and Charlotte F. TerKeurst is the assigned ALJ in this proceeding.

### **Findings of Fact**

1. Oak Creek filed a motion for acceptance of its late-filed reply brief in this phase of this proceeding.
2. Oak Creek filed a motion asking the Commission to take official notice of a CEC committee report entitled “Preliminary Renewable Resource Assessment.” The CEC’s completed assessment is entitled “Renewable Resources Development Report” and was adopted by the CEC on November 19, 2003.
3. The Tehachapi area contains the largest wind resource area in California and, if more fully developed, will meet a significant portion of the goals for renewable energy development in California.
4. Existing transmission constraints in the Tehachapi area currently prevent new wind installations.
5. SCE, the ISO, and Oak Creek have presented several alternative configurations and routings of potential Tehachapi transmission upgrades.
6. Large-scale transmission upgrades capable of transporting power from multiple wind projects will be needed if Tehachapi wind is to contribute significantly to California’s renewable power goals.
7. Current transmission planning processes would plan and size Tehachapi transmission upgrades based solely on transmission needs of generation projects that have submitted interconnection requests and have committed to provide up-front funding for the transmission upgrades.

8. A requirement that Tehachapi developers enter into consortia to sponsor transmission upgrades could impede timely development of cost-effective transmission upgrades.

9. Even on a batched basis, transmission planning for the Tehachapi region that focuses only on the transmission needs of projects that have submitted interconnection requests would be sub-optimal because it would not take advantage of the economies that could be obtained through transmission upgrades sized to meet multi-year transmission needs as additional generation is constructed.

10. To the extent current planning methods needlessly increase Tehachapi transmission costs, Tehachapi projects would be at an unfair disadvantage and potentially could be priced out of the RPS process. In addition, the total cost of renewables procurement could increase to the detriment of consumers.

11. In order for transmission upgrades in the Tehachapi area to be most cost-effective and least environmentally disruptive, it is reasonable to require a comprehensive Tehachapi transmission development plan to provide for an orderly and logical expansion of the transmission system.

12. It is reasonable for the comprehensive Tehachapi transmission development plan to provide for a phased expansion, in which each phase reflects the next logical expansion step and may be sufficient to meet transmission needs of several years' RPS bid winners.

13. It is reasonable to require that a collaborative study group, coordinated by Commission staff, with assistance by the ISO as needed and participation by all interested parties, develop a comprehensive development plan for the phased expansion of transmission capability in the Tehachapi area, as described in Section VI.B of this order.

14. It is reasonable to require SCE and the ISO to inform the study group of the progress of any interconnection efforts in the Tehachapi area and to provide a copy of any completed System Impact Studies and Facilities Studies, so that the study group may take into account and complement such efforts.

15. It is reasonable for each participant in the study group to fund its own costs.

16. It is reasonable to require that the study group prepare and SCE, acting on behalf of the study group, file a report within nine months of the effective date of this order containing the study group's findings and recommendations.

17. It is reasonable to require that SCE continue preparation of a CPCN application for the first phase of Tehachapi transmission upgrades in parallel and coordination with study group recommendations and to require SCE to file the CPCN application no later than six months after the effective date of this order.

18. Because of the magnitude and concentration of the renewable resources located in the Tehachapi area and identified in the CEC's Renewable Resources Development Report, it is reasonable initially to conclude that the first phase of Tehachapi transmission upgrades are necessary to facilitate achievement of the renewable power goals established in the State's renewable portfolio standard, required by Public Utilities Code Section 399.14.

19. An initial finding of need for the first phase of Tehachapi upgrades, which we make here, is not inconsistent with D.03-07-033 and does not prejudice a need determination in the individual CPCN proceeding on the exact project identified in that application.

### **Conclusions of Law**

1. The motion of Oak Creek for acceptance of its late-filed reply brief should be granted.

2. Official notice should be taken of the CEC's "Renewable Resources Development Report."

3. A Commission order directing a utility to seek cost recovery through general transmission rates pursuant to § 399.25(b) for Tehachapi upgrades would not be inconsistent with FERC's current interconnection policies and would not trespass on FERC jurisdiction over interconnection agreements.

4. The Commission has authority under § 399.25 (b)(4) to authorize rate recovery of transmission projects to meet RPS goals if FERC declines to authorize such recovery.

5. Transmission planning for the Tehachapi area should be modified to provide for an orderly, logical, and phased expansion of the transmission system based on the magnitude of the wind resource identified by the CEC, engineering and cost considerations, and recognition of other relevant factors including statewide transmission needs and other possible benefits associated with transmission upgrades.

6. A collaborative study group, coordinated by Commission staff assisted by the ISO as needed and with participation by all interested parties, should develop a comprehensive development plan for the phased expansion of transmission capability in the Tehachapi area, as described in Section VI.B of this order.

7. SCE and the ISO should inform the study group of the progress of any interconnection efforts in the Tehachapi area and should provide a copy of any completed System Impact Studies and Facilities Studies to the study group.

8. Each participant in the study group should fund its own costs.

9. SCE should prepare a CPCN application for Tehachapi transmission upgrades in parallel and in coordination with study group recommendations,

which incorporates existing projects with interconnection applications already in progress.

10. SCE should file an application for a certificate authorizing construction of the first phase of Tehachapi upgrades in parallel and consistent with the study group recommendations no later than six months after the effective date of this order.

11. The first phase of Tehachapi upgrades should be considered necessary to facilitate achievement of RPS goals established in Public Utilities Code Section 399.14. SCE should therefore pursue relevant transmission cost recovery at the Federal Energy Regulatory Commission.

12. To comply with the requirements of the California Environmental Quality Act (CEQA), Commission staff should investigate the viability of preparing a program-level environmental impact report on the transmission upgrades contemplated in the study group's recommendations at the end of nine months.

13. This order should be effective today, so that the adopted transmission planning modifications may be implemented expeditiously.

## **INTERIM ORDER**

### **IT IS ORDERED** that:

1. The motion of Oak Creek Energy Systems, Inc. for acceptance of its late-filed reply brief in this proceeding is granted.

2. Official notice is taken of the "Renewable Resources Development Report" adopted by the California Energy Resources Conservation and Development Commission (CEC) on November 19, 2003.

3. Transmission planning for the Tehachapi area shall be modified to provide for an orderly, logical, and phased expansion of the transmission system based on the magnitude of the wind resource identified by the CEC, engineering and cost considerations, and recognition of other relevant factors including regional transmission needs.

4. Commission staff, with assistance as needed by the California Independent System Operator (ISO), shall convene and coordinate a collaborative study group to develop a comprehensive transmission development plan for the phased expansion of transmission capability in the Tehachapi area, consistent with the guidance in Section VI.B of this order.

5. Southern California Edison Company (SCE) and the ISO shall inform the study group of the progress of any interconnection efforts in the Tehachapi area and shall provide a copy of any completed System Impact Studies and Facilities Studies to the study group.

6. Each participant in the study group shall fund its own costs.

7. The study group shall prepare and SCE shall file a report containing the study group's findings and recommendations in this proceeding, with service on all parties, within nine months of the effective date of this order. Parties may file initial comments on the study group report, with service on all parties, within 21 days after it is filed. Parties may file reply comments regarding the study group report, with service on all parties, within 14 days after initial comments are due. Parties shall file the study group report, comments, and reply comments in paper form but may serve them on the service list in electronic form, pursuant to Rule 2.3(b) in the Commission Rules of Practice and Procedure. Parties shall serve paper format copies, in addition to electronic copies if made available, on the Assigned Commissioner and the assigned Administrative Law Judge, anyone

on the Appearances and State Service portions of the service list who does not have a valid e-mail address, and any other party requesting paper format copy. If a party serves a filed document electronically, it shall e-mail courtesy copies to the entire service list, including those appearing on the list as “Information Only.”

8. SCE shall file an application seeking a certificate authorizing construction of the first phase of Tehachapi transmission upgrades consistent with its 2002 conceptual study and the study group’s recommendations within six months of the effective date of this order and seek transmission rate recovery at the Federal Energy Regulatory Commission.

9. SCE shall include, to the extent feasible, projects with existing interconnection requests in its first phase CPCN.

10. The three major electric IOUs shall, as part of this proceeding, file quarterly updates on the status of renewable developer certificate applications, as described herein.

11. This order is effective today.

Dated June 9, 2004, at San Francisco, California.

MICHAEL R. PEEVEY

President

CARL W. WOOD

LORETTA M. LYNCH

GEOFFREY F. BROWN

SUSAN P. KENNEDY

Commissioners



**ATTACHMENT A: LIST OF APPEARANCES**

Dennis W. De Cuir  
Atty At Law  
A LAW CORPORATION  
2999 DOUGLAS BLVD., SUITE 325  
ROSEVILLE CA 95661  
(916) 788-1022  
dennis@ddecuir.com  
For: Transmission Agency of Northern California

Kate Poole  
Attorney At Law  
ADAMS BROADWELL JOSEPH & CARDOZO  
651 GATEWAY BOULEVARD, SUITE 900  
SOUTH SAN FRANCISCO CA 94080  
(650) 589-1660  
kpoole@adamsbroadwell.com  
For: Coalition of California Utility Employees

Marc D. Joseph  
Attorney At Law  
ADAMS BROADWELL JOSEPH & CARDOZO  
651 GATEWAY BOULEVARD, SUITE 900  
SOUTH SAN FRANCISCO CA 94080  
(650) 589-1660  
mdjoseph@adamsbroadwell.com  
For: Coalition of California Utility Employees

Evelyn K. Elsesser  
Attorney At Law  
ALCANTAR & ELSESSER LLP  
120 MONTGOMERY ST, STE 2200  
SAN FRANCISCO CA 94104-4354  
(415) 421-4143  
lys@aelaw.com  
For: ENERGY PRODUCERS & USERS COALITION

Michael Alcantar  
EVELYN KAHL  
Attorney At Law  
ALCANTAR & KAHL LLP  
120 MONTGOMERY STREET, SUITE 2200  
SAN FRANCISCO CA 94114  
(415) 421-4143  
mpa@a-klaw.com  
For: EPUC/CAC

Barbara R. Barkovich  
BARKOVICH AND YAP, INC.  
31 EUCALYPTUS LANE  
SAN RAFAEL CA 94901  
(415) 457-5537  
brbarkovich@earthlink.net  
For: California Large Energy Consumers Association & Silicon Valley Manufacturers Group

Scott Blaising  
Attorney At Law  
BRAUN & BLAISING, P.C.  
8980 MOONEY ROAD  
ELK GROVE CA 95624  
(916) 682-9702  
blaising@braunlegal.com  
For: California Municipal Utilities Association

Maurice Brubaker  
BRUBAKER & ASSOCIATES, INC.  
1215 FERN RIDGE PARKWAY, SUITE 208  
ST. LOUIS MO 63141  
(314) 275-7007  
mbrubaker@consultbai.com

Grant Rosenblum  
Attorney At Law  
CAL INDEPENDENT SYSTEM OPERATOR  
151 BLUE RAVINE ROAD  
FOLSOM CA 95630  
(916) 351-4400  
grosenblum@caiso.com  
For: CAISO

Fernando De Leon  
Attorney At Law  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET, MS-14  
SACRAMENTO CA 95814-5512  
(916) 654-4873  
fdeleon@energy.state.ca.us  
For: California Energy Commission

Jennifer Tachera  
CALIFORNIA ENERGY COMMISSION  
1516 - 9TH STREET  
SACRAMENTO CA 95814  
(916) 654-3870  
jtachera@energy.state.ca.us

William W. Westerfield Iii  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET, MS 14  
SACRAMENTO CA 95814  
(916) 654-4775  
bwesterf@energy.state.ca.us

Gene Waas  
Operator Corporation  
CALIFORNIA INDEPENDENT SYSTEM  
151 BLUE RAVINE RD  
FOLSOM CA 95630  
(916) 351-4400  
gwaas@caiso.com

James E. Scarff  
SCOTT LOGAN  
Attorney At Law  
CALIFORNIA PUBLIC UTILITIES COMMISSION  
505 VAN NESS AVENUE  
SAN FRANCISCO CA 94102  
(415) 703-1440  
jes@cpuc.ca.gov  
For: Office of Ratepayer Advocates

Linda Y. Sherif  
Attorney At Law  
CALPINE CORP.  
4180 DUBLIN BLVD.  
DUBLIN CA 94568  
(925) 479-6696  
lsherif@calpine.com  
For: Calpine

Ali Amirali  
CALPINE CORPORATION  
4160 DUBLIN BLVD.  
DUBLIN CA 94568  
(925) 479-6760  
aamirali@calpine.com  
For: Calpine Corporation

Theresa L. Mueller  
Attorney At Law  
CITY AND COUNTY OF SAN FRANCISCO  
CITY HALL ROOM 234  
SAN FRANCISCO CA 94102-4682  
(415) 554-4640  
theresa\_mueller@ci.sf.ca.us  
For: City and County of San Francisco

Grant Kolling  
Senior Assistant City Attorney  
CITY OF PALO ALTO  
250 HAMILTON AVENUE  
PALO ALTO CA 94301  
(650) 329-2171  
grant.kolling@cityofpaloalto.org  
For: City of Palo Alto

Frederick M. Ortlieb  
City Attorney  
CITY OF SAN DIEGO  
1200 THIRD AVENUE, 11TH FLOOR  
SAN DIEGO CA 92101-4100  
(619) 236-6318  
fortlieb@sandiego.gov  
For: City of San Diego

William H. Chen  
CONSTELLATION NEW ENERGY, INC.  
2175 N. CALIFORNIA BLVD., SUITE 300  
WALNUT CREEK CA 94596  
(925) 287-4703  
bill.chen@constellation.com  
For: Constellation New Energy, Inc.

Marcie Milner  
CORAL POWER, L.L.C.  
4445 EASTGATE MALL, SUITE 100  
SAN DIEGO CA 92121  
(858) 526-2106  
mmilner@coral-energy.com

Robert Buster  
Supervisor-District 1  
COUNTY OF RIVERSIDE  
4080 LEMON STREET, 14TH FLOOR  
RIVERSIDE CA 92501-3651  
district1@co.riverside.ca.us

Patrick G. McGuire  
CROSSBORDER ENERGY  
2560 NINTH STREET, SUITE 316  
BERKELEY CA 94710  
(510) 649-9790  
patrickm@crossborderenergy.com  
For: Watson Cogeneration Company

Lindsey How-Downing  
Attorney At Law  
DAVIS WRIGHT TREMAINE LLP  
ONE EMBARCADERO CENTER, SUITE 600  
SAN FRANCISCO CA 94111  
(415) 276-6512  
lindseyhowdowning@dwt.com  
For: Calpine Corp.

Norman J. Furuta  
ROGER GREEN  
Attorney At Law  
DEPARTMENT OF THE NAVY  
2001 JUNIPERO SERRA BLVD., SUITE 600  
DALY CITY CA 94014-3890  
(650) 746-7312  
FurutaNJ@efawest.navfac.navy.mil  
For: Federal Executive Agencies

Douglas K. Kerner  
Attorney At Law  
ELLISON, SCHNEIDER & HARRIS LLP  
2015 H STREET  
SACRAMENTO CA 95814  
(916) 447-2166  
dkk@eslawfirm.com  
For: Duke Energy North America

Lynn M. Haug  
Attorney At Law  
ELLISON, SCHNEIDER & HARRIS, LLP  
2015 H STREET  
SACRAMENTO CA 95814-3109  
(916) 447-2166  
lmh@eslawfirm.com  
For: Cal-wind Energy Association/Department of General  
Services

Laura Roche  
JSOLE@CAISO.COM  
Attorney At Law  
FARELLA, BRAUN & MARTEL, LLP  
RUSS BUILDING, 30TH FLOOR  
235 MONTGOMERY STREET  
SAN FRANCISCO CA 94104  
(415) 954-4400  
lroche@fbm.com  
For: California Independent System Operator

Catherine H. Gilson  
JEANNE SOLE-JSOLE@CAISO.COM  
Attorney At Law  
FARELLA, BRAUN & MARTEL, LLP  
RUSS BUILDING, 30TH FLOOR  
235 MONTGOMERY STREET  
SAN FRANCISCO CA 94104  
(415) 954-4400

Kay Davoodi  
FEA  
1314 HARWOOD STREET, S.E.  
WASHINGTON NAVY YARD DC 20374-5018  
(202) 685-3319  
DavoodiKR@efaches.navfac.navy.mil  
For: Navy Rate Intervention

Barry R. Flynn  
FLYNN AND ASSOCIATES  
5440 EDGEWOOD DRIVE  
DISCOVERY BAY CA 94514-9267  
(925) 634-7500  
brflynn@flynnrci.com  
For: CITY OF SAN FRANCISCO

Mark J. Smith  
FPL ENERGY  
7445 SOUTH FRONT STREET  
LIVERMORE CA 94550  
(925) 245-4215  
mark\_j\_smith@fpl.com  
For: FPL Energy

Brian T. Cragg  
Attorney At Law  
GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP  
505 SANSOME STREET, SUITE 900  
SAN FRANCISCO CA 94111  
(415) 392-7900  
bcragg@gmsr.com

Michael B. Day  
Attorney At Law  
GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP  
505 SANSOME STREET, SUITE 900  
SAN FRANCISCO CA 94111  
(415) 392-7900  
mday@gmsr.com  
For: Goodin, MacBride Law Firm

Brian T. Cragg  
JAMES D. SQUERI  
Attorney At Law  
GOODIN, MACBRIDE, SQUERI, RITCHIE & DAY  
505 SANSOME STREET, SUITE 900  
SAN FRANCISCO CA 94111  
(415) 392-7900  
bcragg@gmsr.com  
For: Ridgetop, LLC

Norman A. Pedersen  
Attorney At Law  
HANNA AND MORTON LLP  
444 SOUTH FLOWER ST., SUITE 1500  
LOS ANGELES CA 90071-2916  
(213) 430-2510  
npedersen@hanmor.com  
For: Southern California Generation Coalition

Steven Kelly  
INDEPENDENT ENERGY PRODUCERS ASSN  
1215 K STREET SUITE 900  
SACRAMENTO CA 95814  
(916) 448-9499  
steven@iepa.com  
For: IEP

Gayatri Schilberg  
JBS ENERGY  
311 D STREET, SUITE A  
WEST SACRAMENTO CA 95605  
(916) 372-0534  
gayatri@jbsenergy.com  
For: The Utility Reform Network (TURN)

Jeff Nahigian  
JBS ENERGY, INC.  
311 D STREET  
WEST SACRAMENTO CA 95605  
(916) 372-0534  
jeff@jbsenergy.com  
For: JBS Energy, Inc.

Richard W. Raushenbush  
Attorney At Law  
LATHAM & WATKINS  
505 MONTGOMERY STREET, SUITE 1900  
SAN FRANCISCO CA 94111  
(415) 395-8237  
richard.raushenbush@lw.com  
For: PG&E

Susan E. Brown  
Attorney At Law  
LATINO ISSUES FORUM  
785 MARKET STREET, NO. 300  
SAN FRANCISCO CA 94103  
(415) 284-7224  
lifcentral@lif.org  
For: Latino Issues Forum

William H. Booth  
Attorney At Law  
LAW OFFICE OF WILLIAM H. BOOTH  
1500 NEWELL AVENUE, 5TH FLOOR  
WALNUT CREEK CA 94596  
(925) 296-2460  
wbooth@booth-law.com  
For: California Large Energy Consumers Association

Daniel W. Douglass  
GARY ACKERMAN  
Attorney At Law  
LAW OFFICES OF DANIEL W. DOUGLASS  
6303 OWENSMOUTH AVE., TENTH FLOOR  
WOODLAND HILLS CA 91367-2262  
(818) 936-2466  
douglass@energyattorney.com  
For: Western Power Trading Forum

Diane I. Fellman  
Attorney At Law  
LAW OFFICES OF DIANE I. FELLMAN  
234 VAN NESS AVENUE  
SAN FRANCISCO CA 94102  
(415) 703-0551  
difellman@fellmanlaw.com  
For: NEO Corporation

Roy And Rita Lompa  
4998 AIRLINE HIGHWAY  
HOLLISTER CA 95023  
(831) 637-3997

John W. Leslie  
Attorney At Law  
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP  
600 WEST BROADWAY, SUITE 2600  
SAN DIEGO CA 92101  
(619) 699-2536  
jleslie@luce.com  
For: Border Generation Group

John W. Leslie  
Attorney At Law  
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP  
600 WEST BROADWAY, SUITE 2600  
SAN DIEGO CA 92101  
(619) 699-2536  
jleslie@luce.com  
For: Border Generation Group (InterGen, Sempra Energy Resources, Coral Power LLC)

David Marcus  
PO BOX 1287  
BERKELEY CA 94701  
(510) 528-0728  
dmarcus2@mindspring.com  
For: Coalition of California Utility Employees

C. Susie Berlin  
Attorney At Law  
MC CARTHY & BERLIN, LLP  
2005 HAMILTON AVENUE, SUITE 140  
SAN JOSE CA 95125  
(408) 558-0950  
sberlin@mccarthylaw.com  
For: City of Anaheim

Barry F. Mc Carthy  
Attorney At Law  
2105 HAMILTON AVENUE, SUITE 140  
SAN JOSE CA 95125  
(408) 558-0950  
bmcc@mccarthylaw.com  
For: Northern California Power Agency

Christopher J. Mayer  
MODESTO IRRIGATION DISTRICT  
PO BOX 4060  
MODESTO CA 95352-4060  
(209) 526-7430  
chrism@mid.org  
For: Modesto Irrigation District

Seth Hilton  
Attorney At Law  
MORRISON & FOERSTER LLP  
101 YGNACIO VALLEY ROAD, SUITE 450  
WALNUT CREEK CA 94596-8130  
(925) 295-3371  
shilton@mofo.com  
For: El Paso Merchant Energy

Diane E. Pritchard  
Attorney At Law  
MORRISON & FOERSTER, LLP  
425 MARKET STREET  
SAN FRANCISCO CA 94105-2482  
(415) 268-7188  
dpritchard@mofo.com  
For: Pacific Gas and Electric Company and National Energy Group

Sara Steck Myers  
Attorney At Law  
122 - 28TH AVENUE  
SAN FRANCISCO CA 94121  
(415) 387-1904  
ssmyers@att.net  
For: Center for Energy Efficiency & Renewable Technology; and City of San Diego

Sam De Frawi  
NAVY RATE INTERVENTION  
1314 HARWOOD STREET, SE  
WASHINGTON NAVY YARD DC 20374-5018  
(202) 685-0130  
defrawis@efaches.navfac.navy.mil

Thomas D. O'Connor  
Attorney At Law  
O'CONNOR CONSULTING SERVICES, INC  
5427 FENWOOD AVENUE  
WOODLAND HILLS CA 91367  
(818) 883-1038  
todocl@aol.com

Harold M. Romanowitz  
Chief Operating Officer  
OAK CREEK ENERGY SYSTEMS, INC.  
14633 WILLOW SPRINGS ROAD  
MOJAVE CA 93501  
(661) 822-6863  
hal@rwitz.net

Sara Pictou  
Executive Assistant  
OAK CREEK ENERGY SYSTEMS, INC.  
14633 WILLOW SPRINGS ROAD  
MOJAVE CA 93501  
(661) 822-6863  
sara@oakcreekenergy.com

David T. Kraska  
MICHELLE WILSON  
Attorney At Law  
PACIFIC GAS & ELECTRIC COMPANY  
MAILCODE B30A, PO BOX 7442  
SAN FRANCISCO CA 94120-7442  
(415) 973-7503  
dtk5@pge.com  
For: PG&E

William V. Manheim  
DAVID KRASKA  
Attorney At Law  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, ROOM 3025-B30A  
SAN FRANCISCO CA 94105  
(415) 973-6628  
wvm3@pge.com

Steve S. Rupp  
R. W. BECK, INC.  
2710 GATEWAY OAKS DR., STE 300S  
SACRAMENTO CA 95833-3502  
(916) 929-3653  
srupp@rwbeck.com

Don Schoenbeck  
RCS, INC  
900 WASHINGTON STREET, SUITE 780  
VANCOUVER WA 98660  
(360) 694-2894  
dws@keywaycorp.com  
For: Coalinga Cogen Co.

William L. Nelson  
RUTHANNE WILLIAMS  
REECH, INC.  
KERN-INYO LIAISON SITE, POSTNET PMB #424  
785 TUCKER ROAD, SUITE G  
TEHACHAPI CA 93561  
(661) 823-8913  
For: REECH, Inc.

James Ross  
Thums  
REGULATORY & COGENERATION SERVICES, INC.  
500 CHESTERFIELD CENTER, SUITE 320  
CHESTERFIELD MO 63017  
(636) 530-9544  
jimross@r-c-s-inc.com  
For: Midway Sunset Cogen Co.

Daniel W. Meek  
RUTHANNE WILLIAMS  
Attorney At Law  
RESCUE  
10949 S.W. 4TH AVENUE  
PORTLAND OR 97219  
(503) 293-9021  
dan@meek.net  
For: Residential Service Companies United Effort Rescue

Arlen Orchard  
Attorney At Law  
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
PO BOX 15830, MS-B406  
SACRAMENTO CA 95852-1830  
(916) 732-5830  
aorchard@smud.org  
For: Sacramento Municipal Utilities District

Joseph R. Kloberdanz  
SAN DIEGO GAS & ELECTRIC  
8330 CENTURY PARK COURT  
SAN DIEGO CA 92123-1530  
(858) 654-1771  
jkloberdanz@semprautilities.com  
For: San Diego Gas & Electric

Joseph Kloberdanz  
SAN DIEGO GAS & ELECTRIC COMPANY  
8330 CENTURY PARK COURT  
SAN DIEGO CA 92123  
(858) 654-1771  
jkloberdanz@semprautilities.com

Chris Bing  
Case Administrator  
SAN DIEGO GAS AND ELECTRIC  
REGULATORY AFFAIRS - CP32D  
8330 CENTURY PARK COURT  
SAN DIEGO CA 92123-1530  
(858) 654-1717  
cbing@semprautilities.com  
For: San Diego Gas and Electric Company

Linda Brown  
Senior Engineer  
SAN DIEGO GAS AND ELECTRIC COMPANY  
FERC REGULATORY AFFAIRS-CP32D  
8330 CENTURY PARK COURT  
SAN DIEGO CA 92123-1530  
(858) 654-6477  
lpbrown@semprautilities.com  
For: San Diego Gas and Electric Company

Stacy Van Goor  
Attorney At Law  
SEMPRA ENERGY  
101 ASH STREET, HQ13  
SAN DIEGO CA 92101  
(619) 699-5070  
svangoor@sempra.com  
For: San Diego Gas & Electric Company

Steven C. Nelson  
Attorney At Law  
SEMPRA ENERGY  
101 ASH STREET HQ 13D  
SAN DIEGO CA 92101-3017  
(619) 699-5136  
snelson@sempra.com  
For: San Diego Gas and Electric Company

Theodore Roberts  
Attorney At Law  
SEMPRA ENERGY  
101 ASH STREET, HQ 13D  
SAN DIEGO CA 92101-3017  
(619) 699-5111  
troberts@sempra.com  
For: San Diego Gas & Electric

Michael Tierney  
SEMPRA ENERGY RESOURCES  
101 ASH STREET  
SAN DIEGO CA 92101  
(619) 699-5033  
mtierney@sempra.com  
For: Sempra Energy Resources

Richard Esteves  
SESCO, INC.  
77 YACHT CLUB DRIVE, SUITE 1000  
LAKE HOPATCONG NJ 07849-1313  
(973) 663-5125  
sesco@optonline.net  
For: SESCO, Inc.

Marc Mihaly  
Attorney At Law  
SHUTE MIHALY & WEINBERGER LLP  
396 HAYES STREET  
SAN FRANCISCO CA 94102  
(415) 552-7272  
armi@smwlaw.com  
For: Save Southwest Riverside County

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Osa Armi  
Attorney At Law  
SHUTE MIHALY & WEINBERGER LLP  
396 HAYES STREET  
SAN FRANCISCO CA 94102  
(415) 552-7272  
armi@smwlaw.com  
For: Save Southwestern Riverside County

David M. Norris  
Associate General Counsel  
SIERRA PACIFIC POWER COMPANY  
6100 NEIL ROAD  
RENO NV 89511  
(775) 834-5696  
dnorris@sppc.com  
For: SIERRA PACIFIC POWER COMPANY

Case Administration  
Law Department  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE, ROOM 321  
ROSEMEAD CA 91770  
(626) 302-1711  
case.admin@sce.com

Julie A. Miller  
Attorney At Law  
SOUTHERN CALIFORNIA EDISON COMPANY  
PO BOX 800  
2244 WALNUT GROVE AVENUE, RM. 345  
ROSEMEAD CA 91770  
(626) 302-4017  
millerja@sce.com  
For: Southern California Edison Company

Julie Miller  
Attorney At Law  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE  
ROSEMEAD CA 91770  
(626) 302-4017  
julie.miller@sce.com  
For: Southern California Edison Company

Michael D. Mackness  
Attorney At Law  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE  
ROSEMEAD CA 91770  
(626) 302-4017  
michael.mackness@sce.com  
For: SoCal Edison Co.

James C. Paine  
Attorney At Law  
STOEL RIVES LLP  
900 S.W. FIFTH AVENUE, STE 2600  
PORTLAND OR 97204  
(503) 294-9246  
jcpaine@stoel.com  
For: PacifiCorp

Keith Mc Crea  
Attorney At Law  
SUTHERLAND, ASBILL & BRENNAN  
1275 PENNSYLVANIA AVENUE  
WASHINGTON DC 20004-2415  
(202) 383-0705  
kmc crea@sablaw.com  
For: California Manufacturers & Technology Association

James E. Scarff  
Legal Division  
RM. 5121  
505 VAN NESS AVE  
San Francisco CA 94102  
(415) 703-1440  
jes@cpuc.ca.gov

Itzel Berrio  
R. GNAIZDA  
Attorney At Law  
THE GREENLINING INSTITUTE  
785 MARKET STREET, 3RD FLOOR  
SAN FRANCISCO CA 94103-2003  
(415) 284-7202  
iberrio@greenlining.org  
For: Greenlining and Latino Issues Forum

Carl C. Lower  
THE POLARIS GROUP  
717 LAW STREET  
SAN DIEGO CA 92109-2436  
(619) 987-0355  
clower@earthlink.net

Matthew Freedman  
MICHEL PETER FLORIO  
Attorney At Law  
THE UTILITY REFORM NETWORK  
711 VAN NESS AVENUE, SUITE 350  
SAN FRANCISCO CA 94102  
(415) 929-8876  
mflorio@turn.org  
For: TURN

Robert Finkelstein  
FREEDMAN@TURN.ORG  
Attorney At Law  
THE UTILITY REFORM NETWORK  
711 VAN NESS AVE., SUITE 350  
SAN FRANCISCO CA 94102  
(415) 929-8876 X310  
bfinkelstein@turn.org  
For: The Utility Reform Network (TURN)

Maury Kruth  
Executive Director  
TRANSMISSION AGENCY OF NORTHERN CALIF.  
PO BOX 15129  
SACRAMENTO CA 95851-0129  
(916) 852-1673  
maury\_kruth@rmiinc.com  
For: TRANSMISSION AGENCY OF NORTHERN  
CALIFORNIA

Matthew Freedman  
TURN  
711 VAN NESS AVENUE, NO. 350  
SAN FRANCISCO CA 94102  
(415) 825-8876  
freedman@turn.org  
For: TURN

Julia Levin  
UNION OF CONCERNED SCIENTISTS  
2397 SHATTUCK AVENUE, SUITE 203  
BERKELEY CA 94704  
(510) 843-1872  
jlevin@ucsusa.org  
For: Union of Concerned Scientists

Steve Munson  
VULCAN POWER COMPANY  
1183 NW WALL STREET, SUITE G  
BEND OR 97701  
(540) 317-1984  
smunson@vulcanpower.com

A Karp  
Attorney At Law  
WHITE & CASE LLP  
3 EMBARCADERO CTR STE 2210  
SAN FRANCISCO CA 94111-4050  
(415) 544-1103  
jkarp@whitecase.com  
For: California Wind Energy Association

Charlotte TerKeurst  
Administrative Law Judge Division  
RM. 5021  
505 VAN NESS AVE  
San Francisco CA 94102  
(415) 703-3124  
cft@cpuc.ca.gov

**(END OF ATTACHMENT A)**