121 FERC 61,286
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

California Independent System Operator Corporation   Docket No. ER08-140-000

ORDER CONDITIONALLY ACCEPTING TARIFF REVISIONS

(Issued December 21, 2007)

1. In this order, we conditionally accept revisions to the California Independent System Operator Corporation (CAISO) tariff, subject to the CAISO filing revisions as directed here. The revisions implement the CAISO's Location Constrained Resource Interconnection (LCRI) provisions, consistent with the Commission's *Order Granting Petition for Declaratory Order*.[1] These LCRI tariff revisions provide a new mechanism to facilitate the financing and development of certain interconnection facilities. As requested by the CAISO, the LCRI tariff revisions become effective January 1, 2008.

Background

2. The CAISO explains that it formulated its LCRI policy in response to stakeholder concerns that significant barriers exist to the development and financing of the transmission infrastructure necessary for the development of location-constrained generation resources. The CAISO states that renewable energy generation and new transmission infrastructure is needed to address the State of California's accelerated renewable energy portfolio standards (RPS).[2] According to the CAISO, investor-owned utilities, energy service providers, and community choice aggregators are required to increase by at least one percent annually the percentage of their load serviced by renewable energy. Publicly-owned utilities also are responsible for implementing a renewable portfolio, but are given flexibility in how it will be accomplished. The CAISO further explains that because California has a goal of achieving a 33 percent renewable energy share by 2020, there will be continuing need for additional renewable energy resources.

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[1] *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,061 (*Declaratory Order*), *order on reh'g,* 120 FERC ¶ 61,244 (2007) (*Rehearing Order*).

[2] Cal. Pub. Res. Code. § 25740.

3. The CAISO sought conceptual approval from the Commission for the LCRI proposal by filing a Petition for a Declaratory Order.[3] Upon consideration of this proposal, the Commission noted that its existing interconnection policies, as articulated in Order No. 2003,[4] did not contemplate the challenges associated with more recent efforts to interconnect location-constrained resources, that the difficulties confronting this type of interconnection are real and that such impediments can thwart the efficient development of needed infrastructure.[5] Accordingly, the Commission held that the CAISO's proposed rate treatment of the costs of the LCRI facilities was not unduly preferential or discriminatory and would be a just and reasonable variation from Order No. 2003's default generator interconnection policies.[6] Further, the Commission found that the CAISO's proposal struck a balance by eliminating barriers to entry while at the same time, included several features that ensure benefits will accrue to users of the CAISO grid and limit the cost impact on ratepayers. Finally, the Commission noted that the CAISO will evaluate and approve each proposed LCRI facility in the context of a CAISO transmission planning process, thereby ensuring that the project will result in a cost-effective and efficient interconnection of resources to the grid.

4. The Commission identified in the *Declaratory Order* several issues that the CAISO would need to clarify within its subsequent LCRI tariff provisions, including: (1) the costs, if any, that would be allocated to wheel-through customers and their corresponding benefits;[7] (2) the required generator commitment levels and the rate impact cap;[8] and (3) the process for identifying the Energy Resource Areas[9] in which LCRI facilities would be constructed.[10]

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[3] The CAISO filed its Petition for a Declaratory Order (*Petition*) on January 25, 2007, in Docket No. EL07-33-000.

[4] *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

[5] *Declaratory Order*, 119 FERC ¶ 61,061 at P 2.

[6] *Id.* P 2, 69.

[7] *Id.* P 86.

[8] *Id.* P 89.

[9] The CAISO generally defines an Energy Resource Area as a geographic region

5. The Commission also directed the CAISO in the *Declaratory Order* to incorporate several changes in its subsequent LCRI tariff filing. These changes included: (1) expanding eligibility under these tariff provision to all location-constrained resources subject to meeting the proposal's eligibility criteria;[11] and (2) not limiting the types of resources that may contract for unused capacity on an existing LCRI facility.[12]

The CAISO's Proposal

6. On October 31, 2007, the CAISO filed its LCRI tariff revisions. According to the CAISO, the LCRI tariff revisions reflect the principles accepted by the Commission in its *Declaratory Order*, and include modifications identified by the Commission in the *Declaratory Order* and subsequently made by the CAISO through consultation with its stakeholders.

7. The proposed LCRI tariff revisions address four broad aspects of the LCRI policy: (1) the criteria under which a project qualifies for consideration as an LCRI facility; (2) the criteria the CAISO will apply during its transmission planning process to determine whether a proposed LCRI facility is needed so as to qualify for inclusion in the CAISO's transmission plan; (3) the mechanism to recover the costs of construction of an LCRI facility; and (4) the allocation of the costs of an LCRI facility.

1. Qualification Criteria

8. The LCRI tariff revisions establish a two-stage process for determining whether a proposed LCRI facility qualifies for consideration and evaluation. The first stage is a conditional approval, described at section 24.1.3.1 of the LCRI tariff revisions. The CAISO states that it can conditionally approve an LCRI facility if the CAISO determines that the project is needed and meets other specified tariff qualifications, including the requirement that the primary purpose of a proposed LCRI facility is to connect two or more LCRI generators in an Energy Resource Area.

9. Second, to qualify for the proposed rate treatment, the LCRI facility must then meet two additional criteria, set forth at section 24.1.3.2, at least 90 days prior to the commencement of construction of an LCRI facility. The participating transmission

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certified by the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) as an area in which multiple location-constrained resources could be located.

[10] *Declaratory Order*, 119 FERC ¶ 61,061 at P 90.

[11] *Id*. P 74.

[12] *Id*. P 75.

owner (PTO) sponsor must show that: (1) the addition of the capital cost of the proposed LCRI facility to the high voltage transmission revenue requirement (TRR) of the PTO will not cause the aggregate of net investment of all LCRI facilities to exceed 15 percent of the aggregate of net investment of all high voltage transmission facilities; and (2) there is sufficient commercial interest to support the LCRI facility.

10. With respect to commercial interest, the CAISO proposes that the sponsoring PTO must show a demonstration of interest by generators in the LCRI facility equal to 60 percent of the proposed facility's capacity. This demonstration must further include a showing that LCRI generators who have executed Large Generator Interconnection Agreements (LGIAs) or Small Generator Interconnection Agreements (SGIAs) represent a combined capacity of at least 25 percent of the total proposed facility capacity.

11. To the extent that the total capacity of the proposed LCRI facility subscribed by generators through executed LGIAs and SGIAs is less than 60 percent, the CAISO proposes that the sponsoring PTO include the following additional demonstrations from potential LCRI generators: (1) executing a power purchase agreement of at least five years duration; (2) being in the CAISO's interconnection queue and submitting a cash deposit equal to the sum of all deposits required for studies under the Large Generator Interconnection Procedures (LGIP) or Small Generation Interconnection Procedures (SGIP), whichever applicable;[13] or (3) paying a cash deposit equal to five percent of an LCRI generator's *pro rata* share of the capital costs of a proposed LCRI facility. The CAISO submits that these proposed additional interest showings are more rigorous than those first proposed in the CAISO's *Petition*.

12. The CAISO explains that, after the Commission accepted in the *Declaratory Order* the CAISO's proposed range of between 50 percent and 70 percent for the required demonstration of interest, the CAISO chose the midpoint of this range at 60 percent. The CAISO states that it "believes a total interest showing of greater than 50 percent is appropriate to minimize the potential stranded cost risk to, and potential rate impact on, ratepayers."[14] At the same time, the CAISO comments that "the total interest showing

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[13] The CAISO notes that the total deposit amount under the LGIP is $160,000. Under the SGIP, a potential interconnection customer must pay the following deposits: (1) a deposit of the lesser of 50 percent of the good faith estimated facilities study costs or earnest money of $1,000; (2) a deposit of the good faith estimated costs for each system impact study; and (3) a deposit of the good faith estimated costs of the facilities study.

[14] CAISO Transmittal at 15.

should not be so great as to create a barrier to the development of location-constrained resources and the facilities needed to connect them to the grid."[15]

13. The CAISO emphasizes that full development of location-constrained resources in an area occurs over a period of many years, and that setting the demonstration of interest requirements too high would constitute a barrier to the development of LCRI facilities. The CAISO asserts that the proposed minimum capacity level of 25 percent associated with LGIAs and SGIAs is an appropriate level at the initial stages of a proposal and should not be higher.

14. The CAISO notes that the LCRI tariff revisions would incorporate several new definitions into the CAISO tariff. The CAISO proposes to define LCRI generators in such a way as to reflect the key feature of location-constrained resources – that their energy source is not practicably transportable.

15. The CAISO also proposes to include a definition of Energy Resource Areas that reflects the fact that the CPUC and CEC have not completed their process for certifying Energy Resource Areas, and that the CPUC and CEC's process will not apply to areas outside California. Accordingly, for the interim period until the CPUC and CEC certify areas, and for out-of-state areas to which a proposed LCRI facility proposes to connect, the CAISO governing board would be permitted to designate Energy Resource Areas for projects that would meet all qualifications for an LCRI facility other than the requirement that the LCRI generator be located in an Energy Resource Area.

2. **Evaluation**

16. The CAISO explains that the LCRI tariff revisions permit any existing PTO or market participant to propose an LCRI facility. The sponsor may submit either a conceptual proposal or a more detailed proposal, and may rely on prior assessments performed by the CAISO as part of the overall transmission planning process. Section 24.1.3.4 provides the factors for evaluating, ranking and prioritizing the proposals through an analysis of the various LCRI proposals' cost-benefit ratios.

17. Section 24.1.3.3 of the LCRI tariff revisions provides for the coordination of LCRI facilities with other transmission providers within the CAISO grid. The CAISO states that this provision complies with the Commission's direction in the *Declaratory Order* that transmission providers should raise coordination issues in the CAISO's independent transmission planning process and, further, that Order No. 890[16] requires that the CAISO

[15] *Id.*

[16] *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12,266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241 (2007).

provide for regional scope as part of its transmission planning. The CAISO comments that it is developing the specific details of its transmission planning process for its forthcoming Order No. 890 compliance filing.

3. Cost Recovery

18. Consistent with the proposal set forth in the *Petition* and accepted by the Commission, the CAISO submits that the LCRI tariff revisions in section 26 provide that the costs of the unsubscribed portion of an LCRI facility would initially be rolled into the TRR of the sponsoring PTO that constructed the facility, and those costs would be reflected in the CAISO's transmission access charge (TAC). The going-forward costs of the subscribed capacity of the LCRI facility will be allocated on a *pro rata* basis to the interconnecting generators as they come on-line. The CAISO explains that the LCRI tariff revisions revise the definition of High Voltage Transmission Facility to include LCRI facilities that have been turned over to the CAISO's operational control.

19. Also, the CAISO explains that under section 26.6, a PTO must assess each LCRI generator its *pro rata* share of the cost of an LCRI facility through the PTO's tariff, and credit the proceeds against the PTO's TRR.

4. Cost Allocation

20. In response to the Commission direction that the CAISO clarify which cost, if any, would be allocated to wheel-through customers, the CAISO proposes to allocate the costs of LCRI facilities to wheel-through customers in the same manner as other CAISO transmission customers. The CAISO offers that this cost allocation is based upon its determination that wheel-through customers receive the following benefits from the LCRI facilities: (1) LCRI facilities provide additional resource interconnections and flexibility to help relieve congestion; (2) the CAISO operates an integrated transmission system, which will include LCRI facilities under the CAISO's operational control, that is used to serve all customers, including wheel-through customers, and (3) LCRI facilities will improve system reliability, thereby benefiting all transmission customers, including wheel-through customers.

21. The CAISO emphasizes that it uses all of the facilities under its operational control to provide service to all customers, including wheel-through customers, in the most efficient, reliable and cost-effective manner. The LCRI facilities will be a component of that integrated system. The CAISO notes that because it operates an integrated system and electrons do not follow a contract path, the electricity that a wheel-through customer actually receives at its sink is just as likely to be electricity that is generated by an LCRI generator as it is electricity that is generated by a supplier located outside the CAISO control area. The CAISO also maintains that, absent LCRI facilities, load serving entities needing to comply with RPS requirements will be forced to look out-of-state for such resources, resulting in increased congestion on the interties.

22. Finally, proposed section 26.6 addresses the cost allocation for an LCRI facility that later qualifies as a network facility because of a transmission addition or upgrade.

Notice of Filings and Responsive Pleadings

23. Notice of the October 31, 2007 filings was published in the *Federal Register*, 72 Fed. Reg. 64,206 (2007), with interventions or protests due on or before November 21, 2007.

24. The following entities filed timely interventions, protests and/or comments: California Department of Water Resources State Water Project (State Water Project); California Electricity Oversight Board (CEOB); California Municipal Utilities Association (CMUA); California Public Utilities Commission (CPUC); City of Santa Clara and M-S-R Public Power Agency (Santa Clara/M-S-R); Golden State Water Company (Golden State); Imperial Irrigation District (Imperial); Metropolitan Water District of Southern California (Metropolitan); Modesto Irrigation District (Modesto); Northern California Power Agency (NCPA); NRG Companies (NRG); Pacific Gas and Electric Company (PG&E); Sacramento Municipal Utility District (SMUD); Southern California Edison Company (SoCal Edison); and the Transportation Agency of Northern California (TANC). Calpine Corporation (Calpine) and Green Borders Geothermal, LLC (Green Borders) filed motions to intervene out-of-time. The CAISO filed an Answer to Protests and Comments.

Discussion

A. Procedural Matters

25. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2007), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

26. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedures, 18 C.F.R § 385.214(d) (2007), the Commission will grant Calpine and Green Borders' late-filed motions to intervene given their interests in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay. However, Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2007), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We are not persuaded to accept the CAISO's answer and will, therefore, reject it.

B. Intervenors' Protests and Comments

1. Rate Cap and Demonstration of Interest Requirements

27. Commenters argue that the CAISO's filing does not provide sufficient assurance that the LCRI policy will achieve increased development of renewable energy generation at a reasonable cost to ratepayers and, thus, the CAISO has not shown its LCRI proposal to be just and reasonable. Specifically, they argue that the 15 percent rate cap and the demonstrations of interest required by LCRI generators would unreasonably increase CAISO grid user costs and are insufficient to mitigate the risk of stranded investment in the LCRI facilities, thereby creating a subsidy funded by California ratepayers. State Water Project cites a Market Surveillance Committee opinion[17] to support its concern about the potential for stranded costs that may occur if substantial unused capacity remains on LCRI facilities. It also contends that such misspent ratepayer funding could skew or even thwart sound investment of limited dollars to meet California's RPS goals.

28. Commenters also argue that basing the 15 percent rate cap on the net investment of all CAISO high voltage transmission facilities will create an ever expanding base upon which the cap would apply and thus would increase the risk of stranded costs for LCRI facilities. CMUA[18] cites pending transmission investment proposals from four PTOs that will more than double the existing net high voltage transmission investment of $3.2 billion over the next five years: (1) SoCal Edison's $560 million Devers-Palo Verde II project, $200 million Rancho Vista project and $1.7 billion comprehensive Tehachapi build out; (2) San Diego Gas & Electric's $1.25 billion Sunrise Power Link; (3) $500 million of transmission projects proposed by PG&E over the next five years; and (4) TransBay Cable's $400 million project. State Water Project points out that investment in LCRI facilities will also be included in the net high voltage transmission investment total, thus creating a multiplier effect, and estimates that the rate cap could escalate from $480 million today to $1.33 billion within three years.

29. CMUA argues that there is no nexus between the amount of network transmission in the system and the appropriate level of LCRI facilities. CMUA contends that the issue before the Commission is the justness and reasonableness of the authorized cap. CMUA submits that the CAISO's argument – that having the authority to spend up to the cap on LCRI-eligible projects does not mean the authority will actually be used – is akin to seeking approval for a $400 million budget for its operating expenses, but arguing that it may only spend $200 million. State Water Project also disagrees with the CAISO's

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[17] State Water Project at 3 (*citing Opinion on Alternative Treatment of New Transmission for Interconnection of Renewable Generation*, Market Surveillance Committee of the California ISO, at 4-5 (October 6, 2006) (MSC Opinion)).

[18] NCPA and SMUD filed comments in support of CMUA's protest.

attempt to correlate load growth with a corresponding need for remote resources. It argues that this reasoning does not take into account California's significant commitment to demand response and energy efficiency, which would reduce requirements for additional generation and transmission.

30. CMUA contends that in addition to the CAISO's stated goal of mitigating rate shock, the cap should also "ensure that: (1) consumers are protected from high costs of a novel and experimental rate treatment for certain generation tie facilities; and (2) the LCRI policy, which is at variance from Commission interconnection policy, does not become the exception that swallows the rule."[19] CMUA submits that to accomplish these goals, the cost cap must be meaningful, and that tying the cost cap to a dramatically increasing net transmission plant defeats these purposes.

31. State Water Project argues that rather than allowing the cap to reach billions of dollars, a more finely tuned escalator should be applied to the initial estimated $480 million cap. Acknowledging that inflation costs may not accurately reflect transmission construction trends, State Water Project instead recommends the use of the *Handy-Whitman Index of Public Utility Construction Costs*. It submits that the Commission has found the *Handy-Whitman Index* in the context of natural gas transportation upgrade costs to be a more accurate reflection of escalation in utility construction costs than Commerce Department inflation data.[20] CMUA also suggests the use of a construction cost inflation adder.

32. Commenters are also concerned with what they characterize as the low threshold generators must meet to be eligible for LCRI consideration. They contend that the CAISO has not provided adequate binding commitments from generators to ensure that consumers are not financing "white elephants." By way of comparison, Imperial notes that the Midwest ISO is considering requiring a commitment from generators representing more than 50 percent of capacity of the project.[21] Imperial contends that when developers are responsible for 100 percent of the costs of generation tie facilities, they are cautious not to build a line that is much larger than needed for its output so as not to get strapped for costs of a line they will not need. According to Imperial, it would be unheard of for developers to finance facilities that will accommodate as much as 75

[19] CMUA Protest at 9.

[20] *Id.* 8 (*citing Revisions to the Blanket Certificate Regulations and Clarification Regarding Rates*, Order No. 686, 117 FERC ¶ 61,074 at P 34 n.26 (2006), *order on reh'g*, Order No. 686-A, 119 FERC ¶ 61,303, *order on reh'g*, Order No. 686-B, 120 FERC ¶ 61,249 (2007).

[21] Imperial Protest at 20 (*citing Proposal to Remove Barriers to Efficient Transmission Investment*, Midwest ISO White Paper at 13 (August 8, 2007)).

percent more than the output of their facility. State Water Project is concerned that the LCRI proposal is not limited to renewable energy resources, but available to any resource meeting the eligibility criteria.

33. Imperial argues that the initial capacity subscription based upon an LGIA or SGIA should be 40-50 percent. CMUA urges the Commission to increase the percentage of generators that must execute an LGIA or SGIA to 35 percent, at a minimum. Citing LGIA section 2.4 on termination costs, CMUA argues that the generator interconnection agreements have the potential to provide assurances that suppliers will actually perform. Requiring LGIAs, CMUA argues, would provide greater protection to consumers that are being asked to pay for LCRI facilities.

34. CMUA and Imperial also urge the Commission to require the additional interest standards to be more meaningful to ensure just and reasonable rates. They contend that the proposed additional interest demonstrations of commercial interest are fraught with uncertainties, and cannot support the construction of multi-million dollar generation tie lines that will be paid for by all transmission customers, even if they do not ever use such tie lines. Imperial submits that an additional interest showing of ownership in land and/or mineral rights is more appropriate than the CAISO's proposed additional demonstrations of interest.

35. With respect to five-year power purchase agreements, Imperial argues that these agreements cannot be found to be adequate to demonstrate additional interest in a multi-million dollar project that has a useful life of at least 30 years, and suggests that the term of the power sales agreement should be at least ten years. CMUA maintains that firm power sales for renewable resources have a very poor performance history.

36. Imperial argues that the second method of demonstration, an interconnection queue deposit of approximately $160,000, is too low to demonstrate solid interest, and is refundable to the extent the deposit exceeds costs incurred for interconnection studies. Imperial adds that the amounts related to studies under the SGIA are likely even lower. Furthermore, Imperial notes that being in the queue and paying deposits does not guarantee a project will be operational any time in the near future, if ever. It points out that there are over 6,000 MW of renewable generation requests to interconnect at the Imperial Valley substation in the CAISO interconnection queue alone. CMUA contends that the interconnection queue contains tens of thousands of MW of proposed generation that has no reasonable chance of coming on line, and that the relatively small deposit needed for interconnection queue study costs is not enough to persuade a large developer to meet its commitments.

37. Imperial asserts that the third method of demonstration, a deposit equal to five percent of the LCRI generator's *pro rata* share of the capital costs of a proposed LCRI facility, also does not hold the developer accountable in a meaningful way. Imperial contends that it is difficult to calculate the LCRI generator's *pro rata* share prior to

performing system and facility studies which may be close to a year or more after the interconnection request is submitted, and does not account for the fact that the generator may withdraw without ever paying the five percent deposit.

38. Finally, CMUA argues that the potential trade-offs between cost caps and commercial commitments from eligible resources that could be made in the context of a settlement may be difficult to assess on the record before the Commission, or in an adjudicatory proceeding. CMUA therefore requests that the Commission institute settlement procedures to resolve outstanding issues of material fact in the instant proceeding.

Commission Determination

39. As an initial matter, we believe that the CAISO's LCRI proposal represents a careful balance of process, risks, benefits and cost allocation. Some commenters argue that there is the risk that too many LCRI facilities will be built, resulting in a larger impact on rates and in a significant risk of stranded costs. State Water Project cites additional risks that were noted in the MSC Opinion, such as a distortion of choices among technologies to meet the RPS requirements by making location-constrained resources artificially inexpensive relative to other technologies such as landfill methane and local wind development.[22] CAISO argues, however, that these sets of risks must be balanced against the possibility that too few LCRI facilities may be built, resulting in ultimately higher costs to meet the state's RPS requirements, or the continued reliance on traditional thermal generation. After careful examination of the various process and procedures proposed by the CAISO, we find that the LCRI proposal contains multiple mechanisms that work in concert to promote investment in needed infrastructure, assist the state in meeting its RPS goals, provide an appropriate signal to LCRI generator development, and balance the risk of stranded cost and impact to ratepayers.

40. We also find that the LCRI proposal reflects the findings in our *Declaratory Order*. In the *Declaratory Order*, the Commission found that the CAISO's proposed policy included several mechanisms that will ensure that any rolled-in amounts are no more than necessary to facilitate the needed investment to develop location-constrained resources.[23] In addition to the rate cap and demonstration of interest requirements, the safeguards include the Energy Resource Area designation process, the independent and regional transmission planning process, and the sharing of costs (and risks) between LCRI generators and ratepayers. The *Declaratory Order* stated the independent regional transmission planning process plays an instrumental role in determining that the costs associated with meeting future demand requirements are expected to be lower over time

[22] MSC Opinion at 5.

[23] *Declaratory Order*, 119 FERC ¶ 61,061 at P 77.

with a proposed LCRI facility than without.[24] Here we find the LCRI tariff revisions closely follow the parameters established in that order.

41. Commenters also argue that there is no *direct* link between the appropriate level of LCRI facilities and the level of net transmission investment, load growth, or even California's increasing RPS requirements. We find that the rate cap should not be evaluated in these separate contexts. Rather, the rate cap serves as an overall limit to ratepayer exposure to LCRI facilities that works in coordination with the CAISO's other proposed mechanisms to minimize the impact on ratepayers and the risk of stranded costs. As such, we agree with the CAISO that the main purpose of the rate cap is to protect TAC ratepayers from rate shock.

42. Some commenters attempt to estimate how much the cap could increase in the near future, given expansion plans by several of the PTOs. CMUA argues that the net transmission plant will double in five years. State Water Project argues further that, with the inclusion of new LCRI facilities in the net investment total that determines the cap for additional LCRI proposals, the rate cap will more than double in even less time.

43. While CMUA and State Water Project consider factors that could result in significantly larger net investment, we find that they cite investment figures that are at least partially speculative and appear to ignore other factors that would serve to decrease net investment. For example, CMUA and State Water Project appear to ignore the fact that existing high voltage investment will continue to depreciate, and that additional LCRI generators are expected to subscribe to more capacity on LCRI facilities as they come on line, which will remove a corresponding share of the LCRI facility cost from total CAISO high voltage net investment. Furthermore, in estimating that the cap would increase to $1.33 billion in three years, State Water Project assumes that the investment level of LCRI facilities allowable under the rate impact cap is maximized each year. At any rate, the Commission's *Declaratory Order* approved a rate cap that uses a percentage and not a fixed dollar amount. The level of the cap in dollar terms will change as levels of investment in transmission plant change.

44. We decline to link the current cap level to a construction or consumer-based inflation adder. As discussed above, the commenters' concern that the rate cap mechanism will lead to excessive LCRI facility investment appears overstated and speculative. In addition, we find that the rate cap methodology proposed by the CAISO provides an appropriate link between net investment in transmission and investment in LCRI facilities. Relying on an inflation-type adjustment could cause the LCRI facility investment to become extremely large or small as compared to net transmission investment. Accordingly, we accept the rate cap as proposed by the CAISO.

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[24] *Id*. P 78.

45. Having addressed the rate cap, we now turn to the CAISO's proposed demonstration of interest requirements. Imperial's attempt to compare the cost considerations of a traditional thermal generator with a location-constrained generator misses the point. The basis for granting the CAISO's *Petition* was that location-constrained resources often face different barriers to entry than traditional generation, and that an alternative solution to the current interconnection policy is needed for such resources.[25] Similarly, calls for an aggregate level of interest requirements higher than 60 percent do not reflect the fact that full development of location-constrained resources in an area tend to take place over long periods of time, and that setting the bar too high during the initial stage of development would be unreasonable and act as a barrier to development of these resources and the interconnection facilities needed to connect them to the grid. While we agree that increased levels of interest demonstration may provide greater assurance, we do not find that they are necessary. We note that 60 percent is the midpoint between the percentages preliminarily accepted by the Commission in the *Declaratory Order*.[26]

46. We will also not require an initial capacity subscription based on LGIAs and SGIAs higher than 25 percent. However, we agree with protestors that the CAISO's proposed additional interest showings may be insufficient given the risk of stranded costs. Of the CAISO's three additional interest showings, only one interest showing includes a requirement to demonstrate site control, which can be avoided if the generation developer pays an additional $10,000 deposit.[27] We find that this additional requirement also prevents LCRI facilities associated with speculative generation projects from delaying LCRI facilities associated with legitimate generation projects. Accordingly, we believe a more stringent deposit or demonstration of site control is necessary. Therefore, we will require that, to qualify as demonstrating additional commercial interest, a generator must (1) provide evidence of site control; or (2) pay a deposit of $250,000 in lieu of demonstrating site control.[28] Site control (or the alternative deposit) must be

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[25] *Id*. P 2.

[26] *Id.* P 89.

[27] To enter the interconnection queue, as required under the CAISO's proposed additional interest showing, the CAISO tariff requires an interconnection customer to demonstrate site control or post an additional $10,000 deposit (consistent with LGIP section 3.3.1). The SGIP has no deposit alternative, *i.e.*, a demonstration of site control is required in order to be in the interconnection queue (s*ee* SGIP section 1.5).

[28] Upon execution of the LGIA, the CAISO tariff requires that the interconnection customer provide evidence of continued site control or post a non-refundable additional security of $250,000 (consistent with LGIP section 11.3). Our modification to the CAISO's proposal increases the upfront deposit from $10,000 to $250,000.

satisfied in addition to meeting one of the three additional interest showings identified in sections 24.1.3.2(b)(i)-(iii).

47. Given these modifications, we find that the initial and additional interest requirements reflect the pattern of development of location-constrained resources and strike an appropriate balance between the risk posed by stranded costs and the barriers that prevent the development of location constrained resources.[29] As discussed above, we find that the addition of a site control requirement (or the alternative deposit) would work in concert with the other safeguards proposed by the CAISO to minimize the impact to ratepayers and the risk of stranded costs. We direct the CAISO to incorporate this provision into its tariff within thirty days of the date of this order.

48. We find that the CAISO's proposed interest demonstrations, with this modification, are a just and reasonable component of the CAISO's LCRI proposal and, thus, we approve them. We also note that the transmission planning process under section 24.1.3.4 will evaluate individual LCRI proposals to determine the extent to which an LCRI facility would create a risk of stranded costs. Lastly, while the CAISO does not file its transmission plans with the Commission, should parties feel aggrieved, they have the opportunity to file a complaint with the Commission opposing any specific LCRI proposal after culmination of the planning process. Accordingly, we find that CMUA's request for settlement procedures is unnecessary.

49. Finally, we recognize the CAISO's proposal as a reasonable attempt to address the barriers to development of location-constrained resources and, thus, help California fulfill its RPS goals. We expect that, to the extent the CAISO's LCRI policy does not work as intended in minimizing the impact to ratepayers and limiting the risk of stranded costs, we will revisit this issue.

2. Definition of Location-Constrained Resource

50. Imperial asks that the Commission require the CAISO to modify its tariff language such that an LCRI generator must be remote from existing or planned transmission facilities. Imperial asserts that the Commission granted the CAISO's *Petition* on this LCRI policy based in part on the fact that location-constrained resources are often remotely located from load. Imperial notes that the CAISO's current definition of an LCRI generator does not mention remoteness as a criterion. Imperial seeks to limit the application of this term to units that are location-constrained by being remote from loads and existing and planned transmission facilities and proposes a new definition reflecting such.

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[29] *See, e.g., Declaratory Order,* 119 FERC ¶ 61,061 at P 77.

Commission Determination

51. We will not direct the CAISO to alter its definition of LCRI generators. While such generators are often remotely located from load or from the transmission grid, that is not their key distinguishing feature. An LCRI generator, unlike a traditional thermal generator, is unable to locate anywhere it chooses – it is constrained by the location of the fuel by which it is powered.[30] A gas-fired generator, for example, has much more flexibility in terms of where it can locate than a solar generator, and thus a gas plant developer would likely choose to site a gas plant at a place where both the transmission grid and gas supplies are readily accessible. A solar, wind, hydro-kinetic, or geo-thermal generator, on the other hand, must locate where its fuel or energy source is plentiful, irrespective of any other economic considerations. "Location-constrained" refers to the geographic constraints of the fuel source, and is not necessarily a measure of remoteness from load or distance from the existing or planned transmission grid.[31] That these resources tend to be located remote from load is recognized as a truism in the industry, and this is likely to be borne out when Energy Resource Areas are designated, but the proposed LCRI policy does not demand that LCRI generators be remotely located, nor will we require it.

3. Energy Resource Area Designation

52. Imperial takes issue with the CAISO's definition of an Energy Resource Area. In particular, Imperial is concerned that the CAISO's proposed definition would give the CAISO unfettered discretion in approving LCRI facilities before Energy Resource Areas are identified and certified. Imperial asserts that one of the bases upon which the Commission granted the CAISO's *Petition* was the assurance that the CPUC and CEC would be responsible for certifying appropriate Energy Resource Areas. Imperial suggests that, at a minimum, until the CPUC and CEC are ready to begin certifying Energy Resource Areas, those areas should be certified by a third party such as the Renewable Energy Transmission Initiative (RETI).[32]

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[30] *See Declaratory Order,* 119 FERC ¶ 61,061 at P 64-67, n. 1.

[31] *Declaratory Order*, 119 FERC ¶ 61,061 at P 64 ("Location-constrained resources . . . tend to have an immobile fuel source, are small in size relative to the necessary interconnection facilities, tend to come on line incrementally over time, and are often remotely located from loads.")

[32] The Renewable Energy Transmission Initiative (RETI) is a statewide initiative to help identify the transmission projects needed to accommodate these renewable energy goals, support future energy policy, and facilitate transmission corridor designation and transmission and generation siting and permitting. Its supervising committee is

Commission Determination

53. We accept the CAISO's proposal to allow it to designate the Energy Resource Areas (1) in the interim until the CPUC and CEC are ready to do so; and (2) for out-of-state areas to which an LCRI facility proposes to connect. We will not direct the CAISO to implement Imperial's proposal that a third-party entity certify Energy Resource Areas until such time as the CPUC and CEC undertake this task. As a practical matter, RETI is not a single entity, but a collaboration of the CPUC, CEC and other interested parties that will not be in a position to identify Energy Resource Areas until late 2008.[33] As such, it would be inappropriate to task RETI with making such designations, as RETI will not be able to fill the gap between now and when the CPUC and CEC will designate Energy Resource Areas. We note that neither the CPUC nor CEC has objected to CAISO's proposal. In addition, the RETI process is not currently designed to certify Energy Resource Areas outside California,[34] but there is nothing in the CAISO's proposal to preclude the construction of interconnection facilities to resource-rich area in neighboring states. The CAISO's proposal to require certification by the Board of Governors relies on the expertise of an appointed, independent board,[35] and does not, as Imperial asserts, give the CAISO unfettered discretion to designate Energy Resource Areas. We find the CAISO's proposal to rely on the Board of Governors to designate Energy Resource Areas until the CEC and the CPUC have completed the designation of those areas is reasonable. We expect that the Board of Governors will delineate the criteria that will be used in designating an Energy Resource Area. Further, this designation will operate in concert

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comprised of representatives from the CPUC, the CEC, the CAISO, and municipal utilities. (*See* http://www.energy.ca.gov/reti/index.html.)

[33] A presentation at the RETI Plenary Stakeholder Group Kick-Off Meeting estimates that the first study phase (to identify and rank resource areas) will take eight months (*See* http://www.energy.ca.gov/reti/meetings/2007-09-20_meeting/presentations/RETI_PSG_Kick-off_Meeting_Slides.pdf, slide 6). Further, minutes from the October 29 Stakeholder Steering Committee meeting indicate that a consultant may not be able to begin this work until January 2008 (*See* http://www.energy.ca.gov/reti/meetings/2007-10-29_meeting/2007-10-29_MINUTES.PDF, p. 4).

[34] *See* Ferguson presentation, http://www.energy.ca.gov/reti/meetings/2007-10-29_meeting/presentations/FERGUSON_2007-10-29.PDF, slide 7, identifying RETI's phase one goal as "a quantitative ranking of California CREZs" [Competitive Renewable Energy Zones].

[35] *California Independent System Operator Corp.*, 112 FERC ¶ 61,010 *(July 1 Order*), *reh'g denied*, 112 FERC ¶ 61,337 (2005).

with the CAISO's transmission planning process, which is open to all market participants and interested parties.

54. We recognize that decisions will be made by the Board of Governors and ultimately the same types of decisions will be made by the CPUC and CEC for other resource areas. To provide this Commission and market participants with adequate notice of when such change is expected to occur, the CAISO is directed to file on an informational basis with the Commission the date upon which the change will take place. This will serve to alert the Commission and market participants of potential change in future designations while maintaining regulatory certainty over past decisions.

4. Transmission Planning Process

55. Imperial asserts that the CAISO's filing is deficient with respect to the Commission's regional planning principle contained in Order No. 890.[36] Specifically, Imperial contends that it is vitally important that the CAISO tariff incorporate the principle of regional participation adopted in Order No. 890, which states that regional planning efforts should be organized on both a sub-regional and regional basis.[37] Imperial avers that the CAISO must include tariff language that recognizes both regional and sub-regional planning group(s) for purposes of studying any LCRI facilities, particularly in the Salton Sea area. Imperial states that the Commission should require the CAISO to modify the tariff language implementing its LCRI proposal to be consistent with the Order No. 890 transmission planning principles.

56. In addition, Imperial states that the tariff must provide for joint planning and economic analysis of projects that will be located within and outside of the current CAISO control area. Imperial asserts that this is critical to ensuring that the most efficient, cost-effective alternative is identified for consideration in the planning process and that CAISO ratepayers do not pay unjust and unreasonable rates. Imperial avers that CAISO ratepayers should not be required to subsidize unsubscribed capacity on a location-constrained interconnection facility when a more efficient, cost-effective or environmentally-sound alternative is available. Imperial requests that the Commission direct the CAISO to incorporate into its tariff the language Imperial proposes in Attachment B to its comments.

[36] *Preventing Undue Discrimination and Preference in Transmission Service,* 72 Fed. Reg. 12,266, (March 15, 2007), FERC Stats. & Regs. ¶ 31,241 (2007) (Order No. 890).

[37] Order No. 890 at P 505, 527.

Commission Determination

57. As Imperial points out, Order No. 890 contained specific requirements, and the Commission offered further guidance, regarding regional and sub-regional planning initiatives. It is premature for the Commission to address the CAISO's planning process under the requirements of Order No. 890 outside of that compliance process. The CAISO indicates it will submit its Order No. 890 compliance filing by December 21, 2007, and we leave it to that proceeding to assess the merits of the CAISO's proposed regional planning process.

5. Incentive Rate Treatment

58. Metropolitan requests that the Commission address whether LCRI facilities would be eligible for incentive rate treatment under the Energy Policy Act of 2005[38] and Order Nos. 679 and 679-A.[39] Metropolitan's position is that LCRI facilities should be ineligible for incentive rate treatment because there is no risk to the PTOs, as they are assured that all costs associated with the construction of LCRI facilities will be recovered through the CAISO's TAC.

Commission Determination

59. We reiterate our position as stated in the *Declaratory Order*[40] in which we find that this matter is best addressed on a case-by-case basis and, therefore, we consider as premature any requests for incentive rate treatment until the sponsoring PTO submits its TRR filing for Commission approval.

6. Wheel-Through Customer Obligations

60. Imperial asserts that wheel-through customers should not be responsible for paying the costs of unsubscribed capacity on LCRI facilities. Similarly, Modesto objects to the allocation of LCRI costs to wheel-through transactions and requests that the Commission exempt wheel-through customers from LCRI costs until the CAISO can quantify the benefits that wheel-through customers receive. Modesto contends that the CAISO's assertion that the LCRI program will reduce congestion on the CAISO grid is not enough to justify assessing costs of LCRI facilities to wheel-through customers. It

[38] Energy Policy Act of 2005, Pub. L. No. 109-58, § 1241, 119 Stat. 594,982-83 (2005), *to be codified at* 16 U.S.C. § 824s.

[39] *Promoting Transmission Investment Through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222, at P 386, *order on reh'g*, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 (2006), *order on reh'g*, 119 FERC ¶ 61,062 (2007).

[40] *Declaratory Order*, 119 FERC ¶ 61,061 at P 87.

notes that the Commission has previously exempted wheel-through customers from certain costs the CAISO charges to its other transmission customers.[41]

Commission Determinations

61. We disagree with Imperial and Modesto that wheeling customers should be exempt from the costs associated with the unsubscribed capacity on LCRI facilities. The availability of energy from renewable sources, increased generation capacity on the system, and reliability benefits accrue to all uses of the CAISO grid, including wheel-through customers.

62. Modesto cites the *Amendment 60 Order* to support its position that wheel-through customers should not be allocated the costs of LCRI facilities. We find that the *Amendment 60 Order* is distinguishable from the instant proceeding. First, the Commission found that wheel-throughs do not impose the specific reliability costs that were the subject of allocation, *i.e.*, when the CAISO issues a must-offer waiver denial and incurs minimum load cost compensation that must be allocated.[42] In the *Declaratory Order* and in the instant proceeding, we have found that the benefits accrue more broadly to all grid users. Second, in the *Amendment 60 Order*, the Commission found unreasonable the CAISO's proposal to allocate minimum load costs to wheel-through transactions that sink into California control areas but not allocate costs to wheel-through transactions that sink into non-California control areas.[43] In the instant proceeding, there is no proposal to exempt certain transactions. All users of the grid would be allocated the costs of the LCRI facilities, either through the TAC or the wheeling access charge. Accordingly, we reject Modesto's argument.

7. Other Issues

a. Golden State

63. Golden State protests that the LCRI tariff revisions do not comply with the Commission's ratemaking policy that interconnection customers are to be assigned the costs of interconnection facilities. Instead, the tariff revisions would permit the costs of unsubscribed costs to be rolled into a PTO's TRR, and be recovered in the base rate of the CAISO's TAC. Golden State argues that LCRI facilities are not network facilities and not eligible for rolled-in rate treatment. Golden State also protests that the CAISO

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[41] Modesto at 9, *citing California Independent System Operator Corp.,* 117 FERC ¶ 61,348 (2006) (*Amendment 60 Order*). More details are provided on this case below.

[42] *Id.* P 90.

[43] *Id.*

has not demonstrated that all CAISO transmission customers, including small load serving entities, would benefit from LCRI facilities. Finally, Golden State argues that the Commission lacks authority to accept the LCRI tariff revisions because they would compel all CAISO transmission customers to finance the construction of generation interconnection facilities.

Commission Determination

64. In the *Declaratory Order*, we acknowledged the unique needs of developing location-constrained resources as distinguished from the needs of other generation developers, and approved the CAISO LCRI proposal because it offers an appropriate variation from Order No. 2003's default generator interconnection policies.[44] We also explained in the *Declaratory Order* that there may be undue discrimination when there is a difference in rates or services among similarly-situated customers that is not justified by some legitimate factor.[45] Upon consideration of the unique needs of location-constrained resources, we concluded in the *Declaratory Order* that the CAISO's proposal is consistent with our policies and responsibilities under the Federal Power Act (FPA), and that this proposal would ensure benefits to all users of the CAISO grid. Golden State is attempting to re-litigate an issue we already resolved in the *Declaratory* Order and the *Rehearing* Order; this they cannot do.[46]

65. Further, although Golden State raises concern that PTOs may benefit more from LCRI facilities than small load serving entities, we do not find evidence to support this concern. The CAISO, as the system operator, is responsible for providing open access on all facilities under its control. Any facility proposed to be financed and constructed under the mechanism of the LCRI tariff revisions will be analyzed and reviewed through the CAISO's independent transmission planning process. As we concluded in the *Declaratory Order*, the CAISO's independent transmission planning process "will ensure that any facility is sized to accommodate the optimum amount of capacity from an energy

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[44] *Declaratory Order*, 119 FERC ¶ 61,061 at P 64-67.

[45] *Id.* P 69, *citing El Paso Natural Gas Co*,. 104 FERC ¶ 61,045, at P 115 (2003); Order No. 436, FERC Stats. & Regs. ¶ 30,665, at 31,541 (1985).

[46] *Entergy Services, Inc*., 115 FERC ¶ 61,378, at P 5-6 (2006); *Cargill Power Markets, LLC*, 114 FERC ¶ 61,093, at P 5-7 (2006); *KeySpan Ravenswood, LLC v. New York Independent System Operator, Inc*., 112 FERC ¶ 61,153, at P 6-8 (2005). *Entergy Services, Inc*., 115 FERC ¶ 61,378, at P 5-6 (2006); *Cargill Power Markets, LLC*, 114 FERC ¶ 61,093, at P 5-7 (2006); *KeySpan Ravenswood, LLC v. New York Independent System Operator, Inc*., 112 FERC ¶ 61,153, at P 6-8 (2005).

resource area and not sized based on the RPS requirements of the sponsoring PTO."[47] Additionally, Order No. 890 requires a regional planning process that will provide a forum for stakeholders to voice their concerns about the appropriate sizing of LCRI facilities. This process will facilitate a matching of load serving entities' projected needs against the potential capacity from an Energy Resource Area.[48] Therefore, we do not find a basis for concluding that some transmission customers would be treated in an unduly preferential or discriminatory manner.

b. <u>SoCal Edison</u>

66. SoCal Edison states that while it supports the intent of the CAISO's filing, it believes the filed tariff language contains several errors[49] and inconsistencies that the Commission needs to address. SoCal Edison contends that the tariff language which describes how the capital costs of the facility are to be adjusted for the portion of the facilities paid for by generators, to determine whether the investment cap has been met, are inconsistent with the CAISO's transmittal letter and the *Declaratory Order*.[50] SoCal Edison asserts that the calculation for the investment cap should exclude the portion of the LCRI facility investment that is covered by revenues received by the PTOs from generators, as that portion is not being paid by transmission ratepayers. SoCal Edison states that the same inaccurate language is used in section 24.1.3.1(c) where SoCal Edison argues the tariff should read: "the portion of the capital costs of LCRI [facilities] to be recovered by the Participating TO pursuant to [s]ection 26.6."[51]

67. SoCal Edison also asserts that section 24.1.3.1(b)(2), which lists the generator demonstration requirements should be modified to conform to the language from the CAISO's transmittal letter which states, "Existing or prospective owners of LCRI [generators] have demonstrated their interest in connecting LCRI [generators] to the facility consistent with the requirements of section 24.1.3.2, which establishes the necessary demonstration of interest."[52]

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[47] *Declaratory Order*, 119 FERC ¶ 61,061 at P 72 ("We note that if, as commenters fear, capacity on a [LCRI] facility is fully contracted, no costs will be rolled in to the TAC." *Id*. n. 34).

[48] *Id*. P 78.

[49] SoCal Edison also states that, in section 26.6, the term "participating TO" should be capitalized.

[50] SoCal Edison at 2, *citing* section 24.1.3.1(b)(1).

[51] SoCal Edison at 3.

[52] CAISO Transmittal Letter at 9.

68. SoCal Edison contends that the language the CAISO inserted into the definition of Transmission Revenue Credit has made the definition convoluted and inaccurate because it implies that there could be a surplus or shortfall resulting from a charge assessed to LCRI generators. SoCal Edison argues that a charge assessed to LCRI generators for their share of the capacity of an LCRI facility would be revenue and, thus, there would be no shortfall. Therefore, SoCal Edison proposes modified language, which it states should clarify this point.

Commission Determination

69. We agree with SoCal Edison's assertion that the tariff language is unclear and requires modification with respect to how capital costs paid for by generators will be treated in determining the rate cap. We find that sections 24.1.3.1(b)(1) and 24.1.3.1(c) are unclear about whether generator contributions to the capital costs of LCRI facilities will be excluded from the investment cap calculation. Therefore, we will require the CAISO to modify its tariff language to make clear how generator contributions are to be treated in relation to determining the rate cap. In addition, it appears that the CAISO has inadvertently left out of its proposed tariff sheets the second parenthesis to close the statement "(net of the portion of the capital costs of LCRI [facilities] to be recovered by the Participating TOs pursuant to Section 26.6…." The Commission will require that the CAISO correct its tariff language to add this parenthesis mark so that it is consistent with the transmittal letter in this regard.

70. In response to SoCal Edison's request for modification of tariff section 24.1.3.1(b)(2), the Commission agrees that the language is inconsistent with the CAISO's transmittal letter. We find that the language from the transmittal letter which states: "Existing or prospective owners of LCRI [generators] have demonstrated their interest in connecting LCRI [generators] to the facility consistent with the requirements of section 24.1.3.2, which establishes the necessary demonstration of interest"[53] is more precise than that which exists in the proposed amendment. Therefore, we will require the CAISO to revise its tariff accordingly.

71. We recognize SoCal Edison's concern that the CAISO's proposed modifications to the definition of Transmission Revenue Credit may imply that a revenue shortfall could result from the charge assessed to generators. However, we find that this point could be clarified without the extensive edits that SoCal Edison proposes. Therefore, we will require the CAISO to modify the definition of "Transmission Revenue Credit" in its compliance filing to make clear that the charges assessed to generators connecting to LCRI facilities are not expected to result in revenue shortfalls for the purpose of calculating Transmission Revenue Credits. We direct the CAISO to submit a compliance filing, within 30 days of this order, implementing the tariff clarifications discussed above.

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[53] CAISO Transmittal Letter at 9.

The Commission orders:

The CAISO's LCRI tariff revisions are hereby conditionally accepted, subject to the CAISO submitting a compliance filing within 30 days of the date of this order, as discussed in the body of the order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.